



# SAFETY PLAN





To: All Wilkinson Electric Employees

From: Travis Wilkinson, President

Subject: Everything Begins with Safety

Wilkinson Electric recognizes that industry leadership in safety supports and is reflective of our strategy for excellence. This is why safety is one of our core business values.

We believe in the ZERO ACCIDENT philosophy and that every accident can be prevented. To make this possible, it requires every employee to take responsibility and ownership, not only for their own safety, but for the safety of their fellow employees. Proper planning, resources, and follow-through can help us attain our safety goals.

To assist and guide each employee in taking this ownership, we have developed a world class safety program. The program includes the Wilkinson Electric Safety Manual as well as many training opportunities from weekly toolbox meetings, daily safety huddles, training both onsite and in classrooms and other activities designed to help educate and train our employees in hazard awareness and prevention of injuries in the workplace. We will continue to refine and improve our safety program and seek your ideas and suggestion in our pursuit of ZERO ACCIDENTS.

If you have any questions, please feel free to ask your supervisor or safety manager. If you identify an unsafe condition or you feel unsafe, use your STOP WORK AUTHORITY. Contact your supervisor and make sure the issue is corrected or abated before continuing work. Every Wilkinson Electric employee has this right to stop work and will not be subject to retaliation or adverse personnel action of any kind for reporting a safety concern or issue that the employee believes in good faith may violate federal and state law or Wilkinson Electric safety policy or that could cause injury or harm to you or someone else.

Again, our safety culture is reflective of more than safety. It is a reflection of our level of commitment to excellence across all areas of our business. I believe that if one does not take every precaution to protect his or her own health and that of his or her co-workers, he or she will not excel in delivering superior value and excellence to our customers. Most importantly, we want all our employees to go home at the end of the work day safe and free of injuries.

Sincerely,

Travis T. Wilkinson  
President  
Wilkinson Electric, Inc.







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To: All Wilkinson Electric Employees

From: Wilkinson Electric Safety Department

Subject: Safety Help Desk

Wilkinson Electric has established safety resources consisting of an email address and a phone number for all Wilkinson Electric employees to access and utilize. The resources are as follows:

**Wilkinson Electric Safety Help Desk**

An email account has been established ([safety@wilkinstonelectric.com](mailto:safety@wilkinstonelectric.com)) for all Wilkinson Electric employees as a resource where they can email any safety question, policy question, suggestions, ideas, feedback or submit any safety issue or concerns in the workplace. The Wilkinson Electric Safety Department will answer all questions, review all suggestions and feedback and will follow up on any concerns or issues reported.

**Wilkinson Electric Safety Hotline**

The Wilkinson Electric Safety Hotline, (435) 673-9641, has been established where Wilkinson Electric employees that do not have access to the internet or would prefer to place a call will have a resource to submit safety questions, policy questions, ideas, feedback, or report a safety issue or concern within the workplace. The employee has the option as to whether to submit their name and contact info. However, if the call is to report a safety issue or concern, the caller should leave a jobsite name so the Wilkinson Electric Safety Department can follow up. The call will go to a voicemail and the Wilkinson Electric Safety Department will receive 2 forms of notification there is a message. The Wilkinson Electric Safety Department will answer all questions, review any suggestions and feedback submitted, and will follow up on all concerns or issues reported in a confidential manner.

This information is to be posted in all Wilkinson Electric offices and on all Wilkinson Electric Projects where the required postings are displayed and a copy given to all new employees.



## New Employee Safety Orientation

### PROGRAM STATEMENT

Wilkinson Electric and all its locations require new employees to attend and successfully complete New Employee Safety Orientation prior to initial assignment. In addition, all employees assigned to a project for the first time shall receive project specific safety orientation from a Supervisor or Safety professional.

### DEFINITIONS

1. Direct Hire – employed by Wilkinson Electric directly for a specific job or position.
2. Temporary Worker – employed by a Labor Service Provider for a specific job or position within Wilkinson Electric.
  - A. Subject to OSHA reporting when Supervised by Wilkinson Electric.
3. Employee – is defined as both a Direct Hire and Temporary Worker
  - A. New Employee – has not been employed by Wilkinson Electric as a Direct or Temporary employee within the last 12 months.
  - B. Current Employee – existing employee assigned to a new or existing project for the first time.
4. Safety Department or Qualified Trainer
  - A. Employee who is responsible for all safety issues on a designated or remote project or office; or
  - B. Person designated by the Safety Department as authorized to conduct new employee safety orientation and administer the comprehension tests, who is a competent person, successfully completed an OSHA 30-hour course and is knowledgeable in the Wilkinson Electric Safety Program.

### RESPONSIBILITIES

1. Employee
  - A. Attend and participate in New Employee Safety Orientation (NEO) prior to initial assignment
  - B. Acknowledge training and successfully complete the course comprehension tests
2. Supervisor
  - A. Ensure all new hire employees attend NEO prior to initial assignment
  - B. If assigned to a project, attend Project Orientation prior to working at the project
3. Safety Department or Qualified Trainer
  - A. Provide New Employee Safety Orientation to all New Employees
  - B. Review all program material needed to complete NEO Comprehensive Test successfully

### PROGRAM REQUIREMENTS

1. This program applies to all employees assigned to projects and service departments, except office and administration personnel whose daily work tasks are performed in an office.
  - A. All new hire employees shall receive the training specified in the "Training" section of this program before their initial assignment.
2. The Safety Department shall facilitate all new employee training
  - A. Safety Trainer qualifications described in the "Definition" section of this program and identified by the Safety Department as qualified to administer the training.
  - B. The New Employee Safety Orientation Checklist is reviewed during orientation and signed by the Trainer facilitating the orientation. A scanned copy is sent to the Safety Department within 48 hours, who will place it in the "Safety Training Documentation" file on the safety drive and the original sent to the Division HR Manager to file in the employee's file.
3. All employees new and current arriving on a project for the first time shall receive a project specific orientation before initial assignment by a Supervisor or Safety Professional.
  - A. Provide Project Safety Orientation, including the pre-construction JHA.
  - B. Review 3.1.3 Project Safety Orientation Checklist
    - I. After completing orientation, Employee signs the checklist
    - II. Supervisor scans a copy to the Safety Department
    - III. Signed copy is stored in the "Safety Training Documentation" file on the safety drive and the original sent to the Division HR Manager to file in the employee's file.
4. New Employee Training – All new employees shall receive the following training using the Wilkinson Electric New Employee Safety Orientation training modules and videos as outlined below.
  - A. Introduction to the Wilkinson Electric Safety Program
    - I. View Wilkinson Electric New Employee Orientation Video

- II. Complete Quiz and Comprehension Test
  - B. Hazard Communications / Silica
    - I. View Wilkinson Electric Hazard Communication Video
    - II. Review SDS and Label Requirements
  - III. View Silica Video
  - IV. Review Silica Training Module
  - V. Complete Quiz and Comprehension Test
  - C. Wilkinson Electric Lockout Tagout Program
    - I. Review LOTO Training Module
    - II. Discuss importance of always testing circuit or equipment before beginning work
  - D. Electrical Safety
    - I. Review Electrical Safety Training Module
    - II. View ARC Blast-A Survivors Story video
    - III. View Temporary Power video
    - IV. Emphasize ZERO TOLERANCE for violating Wilkinson Electric Energized Electrical Work Program and work on energized circuits or equipment is not allowed by any employee unless in 100% compliance with Wilkinson Electric Energized Electrical Work Program.
    - V. Complete Comprehension Test
  - E. Ladder Safety
    - I. Review Ladder Training Module
    - II. View Step Ladder Safety Video
    - III. Complete Comprehension Materials
  - F. Personal Protective Equipment (PPE)
    - I. Review Wilkinson Electric PPE Training Module
    - II. Emphasize Hardhats, safety toe leather boots, safety glasses and/or prescription safety glasses required 100% of the time
    - III. Complete Comprehension Test
  - G. Hand and Power Tools
    - I. Review of Wilkinson Electric Hand and Power Tool Training Module
    - II. Complete Comprehension Test
  - H. Fall Protection
    - I. Review of Wilkinson Electric Fall Protection Training Module
    - II. Complete Comprehension Test
  - I. Housekeeping
    - I. Review Wilkinson Electric Housekeeping Training Module
    - II. Complete Comprehension Test
  - J. Proper Lifting and Stretch N Flex
    - I. Review Wilkinson Electric Proper Lifting/Stretch-N-Flex Training Module
    - II. Complete Comprehension Test
  - K. Wilkinson Electric Safety Expectations
    - I. Review Wilkinson Electric Safety Expectations Training Module
    - II. Employee reviews and signs the Wilkinson Electric Safety Bill of Rights
    - III. Employee reviews the Wilkinson Electric Management Commitment to Safety
    - IV. Complete Comprehension Test
  - L. Project Orientation Review
    - I. Explain that Supervisor or Safety Personnel will conduct a project orientation upon arrival and before initial assignment
    - II. Give employee a copy of the Employee Project Orientation Checklist which is to be completed by the Supervisor and returned to the Safety Department.
  - M. Fleet Orientation if employee will be driving an Wilkinson Electric vehicle, or a rental or personal vehicle on company business
    - I. All Direct Hire Employees - Only
    - II. View "Wilkinson Electric Driver" video
    - III. View "Don't Text and Drive" video
    - IV. Complete Comprehension Test
5. Other / Additional Training
- A. If the employee responsibilities include operating a company vehicle or a personal vehicle on company business the Wilkinson Electric Fleet Safety Orientation is required
  - B. If the new employee will be required to operate equipment that require specific training when arriving on the project the training will be done



6. Successful Completion of New Employee Safety Orientation
  - A. The new employee shall successfully complete the quizzes and the comprehension test.
  - B. Incorrect answers shall be corrected in the following manner:
    - I. Trainer shall review incorrect answers until employee confirms knowledge
    - II. Employee shall cross out the incorrect answer
    - III. Employee shall circle the correct answer
    - IV. Employee shall place initials beside the correct answer
    - V. Trainer shall initial correction
  - C. This test must be scanned and sent the Safety Department and the original kept on file at the branch office.
7. Project Specific Orientation
  - A. This section applies to the Wilkinson Electric offices performing commercial, industrial and communication construction projects.
  - B. It does not include service calls unless they are classified as small projects.
  - C. When any employee reports to a project for the first time they will complete the site-specific orientation administered by a Supervisor or designated Safety Personnel
  - D. The most current project JHA and the Employee Project Orientation Checklist shall be used.
  - E. The completed copy will be scanned and sent to the Safety Department and the original kept on file in the project safety file kept on site.
  - F. Orientation must be completed before an employee can enter the work area of the project.
8. Program review shall be at least once a year.

**TRAINING**

1. New Employee Orientation shall be completed before initial assignment.
2. Re-training shall occur at least once a year and when employee exhibits behavior that suggests it is time for refresher training.
3. When new tools or equipment are added to a NEO training module, or when a change in the process occurs, affected employees receive training.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards.

**FORMS**

- 2.1.1 New Employee Safety Orientation Checklist
- 2.1.2 New Employee Orientation Video Quiz



## New Employee Safety Orientation Checklist

Employee Name: \_\_\_\_\_ Date: \_\_\_\_\_

- 1. Introduction to the Wilkinson Electric Safety Program**
  - A. Review Wilkinson Electric New Employee Orientation and Training Module
  - B. Complete Comprehension Material
- 2. Hazard Communications / Respirable Crystalline Silica Awareness Program**
  - A. Review Wilkinson Electric HAZCOM/SDS and Silica Awareness Training Module
  - B. Complete Comprehension Material
- 3. Wilkinson Electric Lockout Tagout Program**
  - A. Review Wilkinson Electric LOTO Training Module
  - B. Discuss importance of always verifying (test) circuit or equipment before beginning work
  - C. Complete Comprehension Material
- 4. Electrical Safety Program**
  - A. Review Wilkinson Electric Electrical Safety Training Module
  - B. Emphasize ZERO TOLERANCE for violating Wilkinson Electric EEW Program and work on energized circuits or equipment is not allowed by any employee unless in 100% compliance with Wilkinson Electric EEW Program
  - C. Complete Comprehension Material
- 5. Ladder Safety Program**
  - A. Review Wilkinson Electric Ladder and Stairs Training Module
  - B. Complete Comprehension Material
- 6. Personal Protective Equipment (PPE) Program**
  - A. Review Wilkinson Electric PPE Training Module
  - B. Emphasize 100% mandatory adherence
  - C. Complete Comprehension Material
- 7. Hand and Power Tools Program**
  - A. Review Wilkinson Electric Hand and Power Tool Training Module
  - B. Complete Comprehension Material
- 8. Fall Protection Program**
  - A. Review Wilkinson Electric Fall Protection Training Module
  - B. Complete Comprehension Material & Quiz
- 9. Housekeeping Program**
  - A. Review Wilkinson Electric Housekeeping Training Module
  - B. Complete Comprehension Material
- 10. Material Handling and Stretch N Flex Program**
  - A. Review Wilkinson Electric Proper Lifting/Stretch-N-Flex Training Module
  - B. Complete Comprehension Material
- 11. Wilkinson Electric Safety Expectations Program**
  - A. Review Wilkinson Electric Safety Expectations Training Module
  - B. Employee signs the Wilkinson Electric Safety Bill of Rights
  - C. Review Wilkinson Electric Management Commitment to Safety
  - D. Complete Comprehension Material

**12. Project Orientation Program**

- A. Review the Employee Project Safety Orientation Checklist which is to be completed by the Supervisor or Safety Professional and returned to the Safety Department
- B. Explain the Supervisor or Safety Professional will conduct a project orientation upon arrival and before initial assignment

**If employee will operate a company vehicle or a personal vehicle on company business the Driver Orientation is required at this time. If employee is to operate equipment upon arrival on the project, equipment training is required at this time.**

**I confirm that the aforementioned employee has completed every section of the Wilkinson Electric New Employee Safety Orientation as outlined above before initial assignment. In addition, this employee has been issued an Wilkinson Electric Safety Training card and has been informed this card must be kept on their person while at work and instructed not to perform any task such as operate equipment, etc. until proper training is received.**

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**Employee Signature**

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**Wilkinson Electric Location**

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**Trainer Signature**

## Wilkinson Electric New Employee Orientation Quiz

Employee Name: \_\_\_\_\_ Date: \_\_\_\_\_

Instructor Name: \_\_\_\_\_ Score: \_\_\_\_\_

1. Who is responsible for your safety?  
A. Safety Manager  
B. Management  
C. You (Me, Myself & I)  
D. Job Supervisor  
E. All the above
2. During construction, always plug into a power source that is GFI protected. (circle one) **True False**
3. \_\_\_\_\_ is the standard procedure used to safely de-energize equipment or circuits before starting work?  
A. GFCI  
B. Environmental conditions  
C. Lockout / Tagout  
D. Assured equipment grounding
4. Before performing any energized electrical work, you must be qualified, authorized, and receive specific training from the Safety Department. (circle one) **True False**
5. If an employee violates the Wilkinson Electric Energized Electrical Work Program, they may be \_\_\_\_\_.  
A. Killed  
B. Severely injured  
C. Terminated  
D. All the above
6. Proper gloves will protect your hands from hazards such as:  
A. Electrical burns  
B. Chemical exposure  
C. Lacerations  
D. All the above
7. When lifting, use your \_\_\_\_\_, not your \_\_\_\_\_.
8. What is the leading cause of fatalities in the construction industry?  
A. Electrical shocks  
B. Falls  
C. Trenching accidents  
D. Not listening to your Safety Manager
9. Proper use of an extension ladder includes:  
A. Extended at 4:1 ratio  
B. Secured at the top  
C. Extended 3 feet above the landing  
D. All the above
10. \_\_\_\_\_ must be consulted to select proper glove types when working around chemicals  
A. Safety Data Sheet  
B. Hazard guide  
C. OSHA  
D. All the above
11. All accidents must be reported to your supervisor.  
A. Within 7 days  
B. Immediately  
C. At the end of the day  
D. Only if it still hurts

I acknowledge that I have attended the New Employee Orientation for Wilkinson Electric Safety and taken the Quiz and that any incorrect answers were reviewed with me.

Employee Signature: \_\_\_\_\_



## Safety Expectations and Responsibilities Program

### PROGRAM STATEMENT

At Wilkinson Electric, Safety is the responsibility of each employee. Employees have the duty to work together to initiate and maintain a working environment where hazards are identified and corrected before an injury occurs. This program is not all inclusive and is intended to define basic expectations for all employees in regard to safety and utilized as a guide to assist in developing and maintaining a safety culture. Each employee is responsible for their own safety as well as their co-workers.

1. Define goals and expectations for management and field employees.
2. Develop metrics for accountability.
3. Aid in the development and maintenance of a safety culture where everyone is responsible for safety.

### DEFINITIONS

1. Executive Management: Corporate Management, Division Vice Presidents, Divisional Operations Managers, General Managers and Branch Managers
2. Middle Management: Service Managers, Project Managers, General Superintendents and other members of operations management within a branch office
3. Division Safety Management: Division Safety Director, Division Safety Manager, Field Safety Manager and Safety Coordinator
4. Site Safety: Safety operations on a specific project or project.
5. Supervisor: Superintendent, Field managers, Foremen and Lead employees.
6. Employee: Employees working on projects and service calls.

### RESPONSIBILITIES

1. Corporate and Division Management
  - A. Shall sign the Management Commitment to Safety Statement
  - B. Shall support, implement, enforce and comply with all Wilkinson Electric Safety Programs
  - C. Review monthly, the safety performance, goals and expectations for their areas of responsibility.
  - D. Support, approve, implement and enforce corrective actions for improving safety performance.
  - E. Include the safety department in operational meetings, including Preconstruction planning
  - F. Begin each meeting with Safety Moment.
  - G. Ensure branch offices and projects implement, comply with and enforce all Wilkinson Electric Safety Programs
  - H. Shall wear required PPE when visiting projects
  - I. Shall encourage and support the employee Stop-Work Authority and ensure no retaliation is taken on any employee exercising this authority.
2. Safety Management
  - A. Shall have a dual reporting role to the Corporate and Division Management
  - B. Will have no additional responsibilities other than safety, claims handling and related duties, unless approved by the Executive Management.
  - C. Will support, implement and comply with all Wilkinson Electric safety programs, responsibilities and goals
  - D. Shall maintain their designated folder on the Wilkinson Electric Safety Drive.
  - E. Will open each meeting they facilitate with Safety.
  - F. Will conduct audits on branch offices and projects to measure compliance with Wilkinson Electric safety programs.
  - G. Shall support and provide guidance for operations in development of an action plan for any branch office or project within their Division not meeting safety goals and expectations.
  - H. Maintain OSHA 300 logs within their Division which shall be kept and maintained on the Safety Drive.
  - I. Update the Wilkinson Electric Recordable Accident Tracker system each month.
  - J. Participate in claims reviews for claims within their Division.
  - K. Notify the Wilkinson Electric Senior VP, Safety of any OSHA citation.
  - L. Attend all OSHA project inspections unless geographically impossible.
  - M. Follow up with Executive Management, Corporate Management and Wilkinson Electric Legal after any OSHA citation.
  - N. Each Branch shall have as a minimum, a Safety Committee meeting the following criteria:
    - I. Facilitated by Safety Personnel

- II. Represented by, at a minimum, one (1) Foreman and one (1) Electrician.
  - III. Annually, half of the members roll off the committee, and new employees will roll on so that no employee remains on the committee for more than 12 months.
  - IV. Committee members will meet via a conference call on a bi-monthly basis and will review safety issues, near misses, recordable incidents, vehicle incidents, and will give recommendations as warranted.
  - V. Minutes will be kept, and distributed to each member, and each branch office.
  - VI. The Safety Committee will place the minutes in their folders on the safety drive.
3. Site Safety
- A. Shall support, implement, comply with and promote all Wilkinson Electric Safety Programs.
  - B. Shall perform weekly safety inspections on their assigned project.
  - C. Shall provide required safety training to employees onsite.
  - D. Shall develop site specific safety plans for the project as required.
4. Middle Management – May have similar duties as Supervisor
- A. Shall support, promote, implement, comply with and enforce all Wilkinson Electric safety programs
  - B. Shall review monthly, safety documentation required of the Supervisor.
  - C. Shall open each meeting they facilitate with safety.
  - D. Shall develop, with the assistance of the Supervisor and Safety Department, the Pre-construction Job Hazard Analysis for each project during or preceding the pre-con meeting.
  - E. Shall ensure Job Hazard Analysis is reviewed by employees' onsite, is posted, implemented and complied with on the project.
  - F. Shall participate in incident investigations related to incidents on their projects.
  - G. Shall maintain required safety documentation on the project which will be reviewed periodically by the Safety Department and management. At the conclusion of the project all documentation will be placed in the job file.
  - H. Shall ensure time is allowed for safety training for employees when required.
  - I. Ensure sufficient funding is available for safety training and required PPE on their projects.
  - J. Shall encourage and support Stop-Work Authority by all employees.
5. Supervisor – May have similar duties as Middle Management
- A. Shall support, implement, comply with and enforce all Wilkinson Electric safety polices.
  - B. Shall maintain required safety documentation on the project.
  - C. Shall ensure each employee receives a Project Safety Orientation that meets the requirements of Wilkinson Electric Safety Program 2.1, before initial assignment or being allowed to enter the work area.
  - D. Participate in weekly Wilkinson Electric Toolbox Talks on the first day of the work week.
  - E. Report all incidents / near misses to the Safety Department and PM.
  - F. Identify potential hazards/safety concerns and take corrective actions.
  - G. Shall encourage and support the employee Stop-Work Authority and ensure no retaliation is taken on any employee exercising this authority.
  - H. Ensure a daily pre-task safety huddle is completed with each employee before beginning work which addresses the specific tasks scheduled for that day, specific potential hazards and precautionary actions needed i.e. PPE, proper equipment/tools and their use.
    - I. Review/check the temporary power systems on their projects at least weekly and complete required documentation.
6. Employee
- A. Shall comply with all Wilkinson Electric safety programs
  - B. Shall complete the Wilkinson Electric New Employee Orientation program before beginning initial assignment.
  - C. Shall complete project safety orientation when arriving on a project for the first time prior to work.
  - D. Shall participate in all Wilkinson Electric Toolbox Safety Meetings
  - E. Shall attend a Safety Huddle each day before beginning work.
  - F. Shall report all incidents / near misses to supervisors immediately.
  - G. Shall notify his/her supervisor of any safety concerns and potential safety hazards.
  - H. Shall exercise their STOP WORK AUTHORITY if a potential hazard or unsafe condition is identified or if a co-worker is exposed to potential danger including working in an unsafe manner or violating Wilkinson Electric safety programs.
  - I. Shall hold co-workers accountable for working safely at all times; wear required PPE and comply with all Wilkinson Electric safety programs.
  - J. Shall use tools and equipment as designed and tested.
  - K. Shall have a voltage tester on their person and test ANY conductor or electrical gear/equipment before touching to verify no voltage present.



**PROGRAM REQUIREMENTS**

1. Stop Work Authority
  - A. Every Wilkinson Electric employee has STOP WORK AUTHORITY which conveys the responsibility, authority and expectation to halt work in the event a hazard or unsafe condition is identified, or a co-worker is exposed to potential harm including working in an unsafe manner or the violation of Wilkinson Electric safety programs and procedures.
  - B. This expectation and authority is granted and shall be used without fear of retaliation from management at any level.
  - C. All stop work interventions should be documented and submitted to the Safety Department so lessons learned and corrective measures that are put into place can be communicated within the company.
  - D. All stop work reports shall be reviewed by supervision immediately and the identified safety concern(s) are to be addressed, corrected or abated to the satisfaction of all involved persons prior to the resumption of work.
  - E. Most issues can be adequately resolved in a timely manner at the job site, occasionally additional investigation and corrective actions may be required to identify and address root causes.
2. Management Commitment to Safety Statement
  - A. At each branch office every member of management shall sign a copy of the Management Commitment to Safety including Executive and Corporate Management
  - B. The signed copy will be posted on all projects and within each branch office in a conspicuous location so it is readily seen.
3. Wilkinson Electric Safety Bill of Rights
  - A. Each employee will sign a copy to be placed in their personnel file.
  - B. A copy of the Wilkinson Electric Safety Bill of Rights shall be posted beside the Management Commitment to Safety statement at all branch offices, projects in a conspicuous location so it is readily seen.
4. Program review shall be completed at least once a year.

**TRAINING**

1. Safety Expectations and Responsibilities Program shall be included in the New Employee Safety Orientation Program
2. Employee Training
  - A. NEO Training prior to initial assignment
  - B. Project Safety Orientation prior to performing work at a project
  - C. Specific training as required by task or duty
  - D. Refresher training at least once yearly or when deficiencies are noted.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 3.1.1 Wilkinson Electric Safety Bill of Rights
- 3.1.2 Management's Commitment to Safety
- 3.1.3 Project Orientation Checklist



## ***Wilkinson Electric Minimum Safety Training Requirements***

Proper safety training is a key component in establishing a safe work environment and a safety culture in the workplace. Safety training is to provide Wilkinson Electric employees with instructions and guidance essential to performing job duties safely. Listed below are 24 training topics that may be required by Wilkinson Electric and/or OSHA when applicable to the employee's job tasks. This list is not inclusive. All training will be coordinated by the Wilkinson Electric Safety Department. The Wilkinson Electric training curriculum meets the criteria as specified by OSHA, Local, State and Federal guidelines and shall always be documented and kept on file. In addition, the safety training shall be entered on the Wilkinson Electric Training Card carried by Wilkinson Electric field employees at all times while on the job.

### **ENERGIZED ELECTRICAL WORK**

Energized Electrical Work (EEW) training shall be provided utilizing the training curriculum developed by the Wilkinson Electric Safety Department to any qualified employee as specified in the Wilkinson Electric Energized Electrical Work Program required before beginning work on or around energized circuits, equipment or parts. Retraining shall be done as needed, as conditions change or after an infraction is recognized.

### **NEW EMPLOYEE SAFETY ORIENTATION**

New Employee Safety Orientation is required before initial assignment. Refer to the Wilkinson Electric NEO safety program for specific details.

### **FLEET SAFETY**

Fleet Safety Training shall be provided to any employee that drives an Wilkinson Electric vehicle or a personal vehicle on Wilkinson Electric business.

### **CONFINED SPACE ENTRY**

Confined Space Training shall be provided prior to any Confined Spaces being entered. A competent person is required for any Confined Space Entry and must be present at the confined space at all times. Refresher training is required as needed.

### **1ST AID/CPR**

Project Foremen should be certified in 1<sup>st</sup> Aid/CPR. Retraining will be provided as required by the certifying entity. At least 2 Wilkinson Electric employees should have current training in 1st Aid/CPR on every project, including offices. Blood borne pathogens will also be covered.

### **POWDER ACTUATED TOOLS**

Powder Actuated Tool training shall be provided before employees use a powder actuated tool. Retraining shall be done as needed, as conditions change or after an infraction is recognized.

### **FIRE EXTINGUISHER**

Fire Extinguisher training shall be provided to every employee when Wilkinson Electric provided fire extinguishers are on the project. Retraining will be done as needed, as conditions change or after an infraction is recognized.

### **EMERGENCY RESPONSE PLAN**

Every employee shall review the Emergency Response Plan during the project orientation upon arriving on a project or project for the first time.

### **BOOM/BUCKET TRUCK**

Boom/Bucket Truck Training shall be provided as needed, but prior to any Boom/Bucket Trucks being used. Retraining shall be as needed, as conditions change or after an infraction is recognized.

### **SCISSORS LIFTS**

Scissors Lift Training shall be provided to any employee prior to using Scissors Lifts. Retraining shall be as needed, as conditions change or after an infraction is recognized.

### **FALL PROTECTION**

Fall Protection training shall be provided to every field employee during new employee orientation program. Retraining shall be done as needed, as conditions change or after an infraction is recognized

**FORKLIFT**

Training shall be provided to any employee prior to be allowed to operate a Forklift. Retraining is required every 3 years.

**EXCAVATION**

Training shall be provided to any affected employee prior to commencing any excavation activities. Retraining shall be as needed, as conditions change or after an infraction is recognized. A competent person is required for any Excavation and shall be present at the excavation at all times. Competent person training for Excavations will be completed as needed.

**TRANSMISSION/DISTRIBUTION LINE WORK**

All Line Worker's must be trained per 1910.269 and in accordance with the requirements of the Wilkinson Electric T&D safety programs, procedures and programs.

**LADDERS**

Ladder training shall be provided to every field employee during new employee orientation program. Retraining will be done as needed, as conditions change or after an infraction is recognized.

**ELECTRICAL**

Electrical training shall be provided to every employee during new employee orientation. Retraining will be done at least annually, as needed, as conditions change or after an infraction is recognized.

**LOCKOUT/TAGOUT**

Lockout/Tagout Training shall be provided to all new employees during the new employee orientation program. Retraining shall be as needed, as conditions change or after an infraction is recognized.

**INCIDENT INVESTIGATION**

All Wilkinson Electric Project Supervisors shall receive training on how to properly investigate an incident. Refresher training will be done as needed.

**OSHA 10**

Every Wilkinson Electric Project Manager, General Superintendent and Residential Field Supervisor will have as a minimum the OSHA 10-Hour certification.

**OSHA 30**

Every Field Manager performing Commercial and/or Industrial work shall have as a minimum the OSHA 30-hour certification.

**HAZARD COMMUNICATION**

Hazard Communication familiarization training shall be given to every employee during the new employee orientation program. Specific project Hazard Communication shall be given to every employee when they arrive on site during the project orientation program. Every employee on site shall know the location of the SDS, the information contains therein and how to read it. Refresher training is required as needed, as conditions change or an infraction is recognized.

**RESPIRABLE CRYSTALLINE SILICA**

Wilkinson Electric employees perform intermittent tasks involving brief exposure when using drills and small power/hand saws that are incidental to their primary work. This exposure can reasonably be expected to remain under the Action Level (25 µg/m<sup>3</sup> at an 8-hour TWA). All Wilkinson Electric employees are competent under the silica standard as they are aware of the hazards, have the authority to take corrective measure and the knowledge to implement the exposure control plan. By providing training to all employees to be competent, they can inspect materials and equipment frequently and respond immediately to any potential exposure hazards.

**MATERIAL HANDLING/BACK SAFETY**

Material Handling/Back Safety training shall be provided to every employee during new employee orientation program. Retraining will be done as needed, as conditions change or after an infraction is recognized.

**RESPIRATORY (As needed)**

Respirators are to be used as a last resort after every effort has been made to avoid their usage. Respiratory Training shall be provided as needed, and prior to any respirators being used or required. Retraining shall be as needed, as conditions change or after an infraction is recognized.

## Wilkinson Electric Safety Bill of Rights

### AS AN EMPLOYEE OF WILKINSON ELECTRIC, I HAVE THE RIGHT TO:

1. Work on a project that follows all Wilkinson Electric safety programs, procedures and programs and to receive all required safety training.
2. Receive a project specific orientation when arriving on a project for the first time and before beginning work, so that I will know the location of:
  - A. Wilkinson Electric Safety Program
  - B. Wilkinson Electric Safety Data Sheet (SDS) & HAZCOM Program
  - C. 1st Aid Kit
  - D. Hazardous areas to avoid on the project
  - E. Emergency Contact Information
  - F. Project Emergency Action Plan
3. Participate in a weekly toolbox safety meeting on the first day of the work week.
4. Participate in daily pre-task planning each day before beginning work.
5. Participate in daily Stretch & Flex.
6. Report all incidents and near misses that I am involved in or witness to my supervisor immediately.
7. To use my **STOP WORK AUTHORITY** and notify my supervisor immediately of all unsafe acts, safety concerns and potential safety hazards without fear of retaliation and expect that corrective action to be taken before resuming work.
8. Receive and appropriately wear all required Protective Equipment (PPE) to complete my task safely.
9. Receive safety training as needed and have my Wilkinson Electric Training card with me while I am at work.
10. Receive specific training before operating:
  - A. Aerial Work Platform (AWP)
  - B. Forklifts
  - C. Excavation and Trenching
  - D. Powder Actuated Tools
  - E. Lockout Tag out
  - F. Confined Spaces
  - G. Fall Protection
  - H. Energized Electrical Work
  - I. Any specialized equipment, tools or task
11. To refuse to work on or around any potentially energized circuit, panel or equipment, until it has been guarded or properly locked out, tagged and tested with a voltage tester to verify the power has been de-energized. If Energized Electrical Work is required, I will refuse to perform it unless it is in full compliance with the Wilkinson Electric Energized Electrical Work Program.
12. **Return home each day in the same physical condition as when I reported to work, injury free so I can enjoy life to its fullest with my family and friends.**

---

Employee Name (print)

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Signature

---

Date



## Management Commitment to Safety

**AS A MEMBER OF WILKINSON ELECTRIC MANAGEMENT, I AM COMMITTED TO:**

1. **Safety being the #1 Company Value at all times, no exceptions.**
2. Each new employee completes the Wilkinson Electric New Employee Safety Orientation program before they report to work on a project or service crew.
3. Open every meeting with a safety moment.
4. Support, implement, comply with and enforce all Wilkinson Electric Safety programs
5. Hold accountable all employees reporting to me for implementing, complying with and enforcing all Wilkinson Electric Safety programs
6. Support Employees that exercise their STOP WORK AUTHORITY and to ensure hazards are eliminated, controlled or abated before they resume work.
7. Allocate time and funding for employees to complete required safety training.
8. Allocate funding for all necessary PPE and is available when needed.
9. Require all employees, including myself, to wear hardhats, safety glasses, safety toe boots and other required PPE, at all times when in the work area of a project.
10. Participate in at least one toolbox talk each month on a project.
11. Assure that each Supervisor performs their daily pre-task safety huddle.
12. Provide employees with a Drug-Free Workplace.

\* Management Team Sign Below

_____	_____	_____
_____	_____	_____
_____	_____	_____





## Employee Project Orientation Checklist

### SITE SPECIFIC RULES/REGULATIONS

- PPE Required: Hard hat, Safety Glasses, Gloves, Work Boots and Sleeved Shirt
- Review Pre-Construction Job Hazard Analysis (JHA)
- Project Specific safety requirements include identification and location of jobsite hazards
- Review Wilkinson Electric Safety Bill of Rights

### EMERGENCY RESPONSE

- Location of Emergency Response Plan
- Location of closest approved Medical Facility
- Location of first aid/blood borne pathogens kits
- Who on site is First Aid/CPR trained
- Location of nearest exit
- Where to go in case of evacuation – Muster Point
- Location of fire extinguisher

### GENERAL SAFETY

- Safety Meetings: Date, Time, and Location
- Location of Wilkinson Electric Safety Program
- Location of SDS
- Accident/Incident reporting requirements
- Zero Tolerance for violating Energized Electrical Work Policy
- Ladder, Fall Protection, and HAZCOM

### ACKNOWLEDGMENT

I have reviewed the above information and understand that I am expected to utilize the information as required to perform my work assignments safely.

---

Employee Name

---

Date

---

Emergency Contact Name

---

Contact Cell

---

Contact Home

---

Supervisor Name

---

Supervisor Signature

cc: Safety Department



## Safety Committee Program

### PROGRAM STATEMENT

Each Wilkinson Electric location is required to have members serve on the Safety and Health Committee to assist Management and Operations in establishing and maintaining a safe and efficient workplace environment. A well-organized Safety and Health Committee is an integral part of a loss control program. It can help reduce the cost of operation and produce many other positive effects, such as:

1. Reducing the occurrence, frequency and/or severity of accidents.
2. Increase productive output, (quality and quantity).
3. Improve the use of equipment/tools.
4. Reduce material waste.
5. Enhance employee satisfaction and feedback.
6. Facilitate employee loyalty, cooperation and contributions.
7. Provide information on injuries and progress reports to management.
8. Develop a correction plan for problems.

### DEFINITIONS

1. Safety Committee Member: An employee designated by the Safety Department or by volunteering that meets once a month on a predetermined date/time to discuss and provide input about safety at their location.
2. Safety Committee Secretary: A Safety Committee Member that is pre-determined by the Safety Committee Chairman to take meeting minutes, introduce guests and distribute paperwork for the Safety Committee.
3. Safety Committee Chairman: The head of the Safety Committee that facilitates each Monthly Meeting, (usually someone within the Safety Department). The Safety Committee Chairman is also a tie-breaker in case of a tied vote.

### RESPONSIBILITIES

1. Safety Department will be the chairman of the safety committee
  - A. Provide root cause analysis on all incidents
2. Safety *Committee Members* should be selected according to their position, knowledge, abilities and interest in promoting safety.
  - A. Care must be taken to avoid creating too large of a committee.
  - B. At a minimum, members should consist of two (2) Foremen and two (2) Electricians.
  - C. Annually half the members roll off the committee and new employees roll on so that no employee will remain on the committee for more than 12 months.
3. Safety Committee Secretary
  - A. Send meeting notice in calendar
  - B. Take notes during meeting
  - C. Distribute meeting notes
4. Foreman
  - A. Shall complete the Incident Investigation Forms
  - B. Explanation of events, why it occurred and corrective action that has been taken to prevent reoccurrence
  - C. Will recommend any additional action they feel should to be taken i.e. reprimand to employee and/or field manager, suspension of any safety incentive, additional safety training, etc.
  - D. Shall meet safety goals and expectations and submit a plan for all deficiencies

### PROGRAM REQUIREMENTS

1. Effective safety meetings require thorough planning and effort.
2. Notices of meetings should be sent to each member of the committee well in time for scheduling conflicts to be resolved.
3. Meeting Minutes will be readily available and distributed to each committee member, the local Safety Department and Operations.
4. Meeting Location
  - A. Attendance may be in person, web-based, or conference call.

- B. Local attendance should be comfortable, well-lit and distraction free.
  - C. Call to Order: The meeting should be promptly called to order at the appropriate time.
  - D. Roll Call by the Secretary: Names of members and all others present should be recorded. Members who cannot attend should send an alternate. Absences should also be noted.
  - E. Introduction of Visitors: If any are present.
  - F. Meeting Minutes: Minutes from the last meeting should be briefly reviewed.
  - G. Unfinished Business: A status review of issues or assignments made during the last meeting should take place.
  - H. Review of Accidents: Each month if there has been a recordable accident, the employee involved, and their supervisor will meet before the safety committee. (If it is an out-of-town project and it is not feasible for them to travel then a conference call is acceptable).
  - I. Safety Goals and Expectations: Any Supervisor who has not met the defined safety goals and expectations will meet (or call in for those working out-of-town where it is not feasible to travel)) with the Safety Committee one at a time to be accountable and submit an explanation of why they did not meet their goals. They will submit a plan of corrective action with a time table for all deficiencies.
  - J. New Business: Any new issues, programs, problems, etc., should be discussed. Appropriate assignments may be given and written down as to contain the expected date of completion. Inspections, environmental health studies, ergonomic studies, surveys, training programs, employee feedback, safety suggestions, insurance reports and any other data-based information.
  - K. General Discussion: Any relevant comments or suggestions that could improve the safety program should be discussed. Guest Speakers may also be allotted this time.
  - L. Adjournment: Set time, date and location of the next meeting. Adjourn on time.
  - M. Meeting minutes should be taken, prepared, and circulated by the secretary after approval by the chairman. The minutes should accurately record all decisions made and actions taken since they serve as a means of keeping management informed of the group's work and as a follow-up.
5. Program Review shall be completed at least once a year

**TRAINING**

Employees shall receive training once they become a safety committee member and a refresher as needed.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards.

**FORMS**

3.2.1 Safety and Health Committee Meeting Minutes

## Safety and Health Committee Meeting Minutes

Date / Time \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ : \_\_\_\_\_ am  
Meeting Duration: \_\_\_\_\_ pm

Committee Member Name	Title	Contact Information

Pending Business:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Accidents Reviewed this month \_\_\_\_\_ (use separate sheets if needed)

Supervisor Name: \_\_\_\_\_ Injured Employee Name: \_\_\_\_\_

Project Name: \_\_\_\_\_ Date of Accident: \_\_\_\_\_

Recordable Y/N \_\_\_\_\_ PPE Worn Y/N \_\_\_\_\_ Reprimand Issued Y/N \_\_\_\_\_

Brief Synopsis of Accident: \_\_\_\_\_

New Business:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Recommendations Completed:

Recommendations Rejected:

Recommendations Still Under Consideration:

Accidents and Preventative Recommendations Made:

\_\_\_\_\_  
**Committee Secretary**

\_\_\_\_\_  
**Committee Chairman**



## Office Safety Program

### PROGRAM STATEMENT

Wilkinson Electric is committed to providing a safe work environment free of potential health and safety hazards. Wilkinson Electric is concerned with the health and safety of all employees, not just to those working on the construction projects and associated work areas.

### DEFINITIONS

Not applicable at this time.

### RESPONSIBILITIES

1. Employee
  - A. Shall attend all required training and adhere to safety program requirements
  - B. Assist in maintaining a safe work environment
  - C. Consult a supervisor when using new equipment for the first time
2. Supervisor
  - A. Shall provide training and supervision to new employees
  - B. Support all safety initiatives and attend training when required
3. Safety
  - A. Shall provide program training

### PROGRAM REQUIREMENTS

1. Where practical, reduce noise.
  - A. Locate loud equipment in areas where its effects are less detrimental. For example, place impact printers away from areas where people must use the phone.
  - B. Rubber pads to insulate vibrating equipment can also help to reduce noise.
  - C. When possible schedule maintenance and other noisy tasks at times when it will have less of an effect on the other tasks in the office.
2. Extension cords will only be used in situations where fixed wiring is not feasible.
  - A. Extension cords must be kept in good repair, free from defects in their insulation. They will not be kinked, knotted, abraded, or cut.
  - B. Extension cords must be placed so they do not present a tripping or slipping hazard.
  - C. Extension cords shall not be placed through doorways having doors that can be closed, and thereby damage the cord.
  - D. All extension cords shall be of the grounding type (three conductor type).
3. Un-plug all electrical equipment before servicing them, this includes un-jamming copier machines, to avoid electrical shock.
4. Passageways in offices should be free and clear of obstructions.
  - A. Proper layout, spacing, and arrangement of equipment, furniture, and machinery are essential.
  - B. All aisles within the office should be clearly defined and kept free of obstructions.
  - C. Filing cabinet drawers should always be kept closed when not in use. Heavy files should be placed in the bottom file drawers to prevent file cabinets from turning over when heavy top drawers are fully opened.
5. Chairs, files, bookcases and desks must be replaced or repaired if they become damaged.
  - A. Damaged chairs can be especially hazardous.
6. Materials stored within supply rooms must be neatly stacked and readily reached by adequate aisles.
  - A. Care should be taken to stack materials, so they will not fall over.
  - B. Under no circumstances will materials be stacked within 3'-0" of ceiling fire sprinkler heads or Halon nozzles.
  - C. Do not store materials so that they project into aisles or passageways in a manner that could cause persons to trip or could hinder emergency evacuation.
7. Control glare at the source whenever possible.
  - A. Place Video Display Terminals so that they are parallel to direct sources of light such as windows and overhead lights, and use window treatments if necessary.
  - B. When glare sources cannot be removed, seek appropriate screen treatments such as glare filters.
  - C. Keep the screen clean.

8. The chair should be adjusted for comfort, making sure the back is supported and that the seat pan is at a height so that the thighs are horizontal and feet are flat on the floor.
9. The work surface height should fit the task.
  - A. Place the surface height where the work may be performed in such a manner as to keep arms low and close to the body in relation to the task to reduce fatigue.
  - B. Work should be done at about elbow height, whether sitting or standing.
10. To minimize fatigue, it is suggested to design the computer operator's work so that tasks requiring concentrated work at the terminal are alternated with non-computer based tasks throughout the workday. Also, a short break (5-10 minutes) should be taken periodically when involved in continuous work at the computer.
  - A. Change position, stand up or stretch whenever you start to feel tired.
  - B. Use a soft touch on the keyboard and keep your shoulders, hands, and fingers relaxed.
  - C. Use a document holder, positioned at about the same plane and distance as the display screen
  - D. Rest your eyes by occasionally focusing on different items in the distance.
11. Stair Safety
  - A. Do not run up or down stairs.
  - B. Hold on to the hand rail when going up or down stairs to avoid tripping.
12. Do not use a cell phone or attempt to text message or email while walking or going up or down stairs.
13. Emergency Response
  - A. There should be an emergency exit plan posted for each area of the building. Follow the emergency exiting route for any emergency requiring you to leave the building.
  - B. Evacuate the building to your designated assembly point, when a fire alarm sounds. Do not return to the building until the all clear sign is given. Do not leave the designated assembly point until authorized to do so.
14. Unauthorized person
  - A. If an unauthorized person is in the building, notify management immediately. No one is allowed in the building without authorization.
  - B. If an unauthorized person is in the building and is acting in a threatening manner, call the police, do not confront them.

**TRAINING**

1. Employees will be trained as needed and re-fresher training at least once a year

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

Not applicable at this time.



## Wilkinson Electric SAFETY AT-WATCH PROGRAM

The "**At Watch**" status applies to an Wilkinson Electric location where the Division Executive Management and Wilkinson Electric Safety Department agree the safety performance of an Wilkinson Electric location does not meet safety expectations.

Once a location is categorized as "**At-Watch**" the following occurs:

1. The Wilkinson Electric Safety Department sends a notice of At-Watch status.
2. A visit by the Wilkinson Electric Safety Department is scheduled to review the requirements of this process along with the expectations. The visit will include jobsite audits, review of safety performance data, loss analysis' and interviews with field employees and management. The Wilkinson Electric Safety Department shall develop a 12-month loss analysis summary of all recordable incidents and near misses/medical only claims reported. The summary shall include length of employment, body part, type of incident and a possible cause analysis of each incident.
3. The Wilkinson Electric Safety Department will develop of a written detailed safety action plan based upon findings from the visit. The action plan will define actions to be accomplished during the At-Watch process. A schedule will also accompany the safety action plan to include action items, persons responsible/accountable and timelines. While the location is on At-Watch, the local safety management reports directly to Wilkinson Electric Safety Department.
4. The location's compliance with the safety action plan and safety performance is monitored via a scheduled bi-weekly conference call. All participants are expected to arrange their schedules so as to attend and participate in each of these calls. Local Safety Manager is responsible to distribute an updated schedule prior to each weekly call. The Wilkinson Electric Safety Department will schedule frequent visits, announce and unannounced to the location and projects to audit compliance.
5. The location can be removed from the "At-Watch" category after the approved Safety Action Plan has been fully implemented and the approval of the Division Executive Management and Wilkinson Electric Safety Department.



## Incident Reports, Investigations and Record keeping

### PROGRAM STATEMENT

Wilkinson Electric investigates, records, and reports near misses, incidents, and accidents to identify trends. This trend data is used to review and revise established policies and protocols to increase their effectiveness. Wilkinson Electric will supply required / requested documentation to clients in the event of injury or property damage.

### DEFINITIONS

1. Accident / Incident is the final outcome of an unplanned event that results in injury or illness to an employee and/or property damager
2. Employee – any person who works directly for Wilkinson Electric or as a temporary worker managed by an Wilkinson Electric Supervisor
3. Near Miss - An unplanned event that resulted no injury, illness, or property damage but the potential for an adverse effect existed.
4. Occupational Illness is an abnormal health condition or disorder caused by exposure to environmental factors associated with employment, such as acute and chronic illnesses and diseases which may be caused by direct or indirect exposure
5. Occupational Injury is classified as death, loss of consciousness, administration of medical treatment, temporary assignment of duties, transfer to another job, or inability to perform all duties on any day after a physical work-related injury
6. OSHA First Aid
  - A. Using non-prescription strength medication at a non-prescription strength (some OTC medications can be prescribed at a higher dosage making the OTC 'prescription strength')
  - B. Administering tetanus immunizations (other immunizations, such as Hepatitis
  - C. B vaccine or rabies vaccine, are considered medical treatment);
  - D. Cleaning, flushing or soaking wounds on the surface of the skin;
  - E. Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc. are considered medical treatment);
  - F. Using hot or cold therapy;
  - G. Using any non-rigid means of support, such as elastic bandages, wraps, nonrigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
  - H. Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).
  - I. Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
  - J. Using eye patches;
  - K. Removing foreign bodies from the eye using only irrigation or a cotton swab;
  - L. Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
  - M. Using finger guards;
  - N. Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
  - O. Drinking fluids for relief of heat stress.
7. OSHA Recordable
  - A. Medical Only – any work-related injury or illness that requires medical treatment beyond first aid
  - B. Restricted Duty or Transfer of Duty
    - I. Work-related injury or illness that prevents the employee from performing their daily work tasks
    - II. Work-related injury or illness that limits the amount of time an employee can perform their regular tasks
  - C. Lost Time – any work-related injury or illness that results in the inability to return to work the day following the incident
  - D. Any work-related injury or illness that results in loss of consciousness, days away from work, restricted work, or transfer to another job

- E. Any work-related diagnosed case of cancer, chronic irreversible diseases, fractured or cracked bones, or teeth, and punctured eardrums
  - F. Any work-related fatality
8. Incident Recording
- A. All injuries/illnesses (job related) must be reported, no matter how minor.
  - B. All injuries/illnesses (off the job) which required professional medical attention or requires the employee to use prescription medication(s) must report to their supervisor the next day of assigned work.
  - C. The First Aid Log must be kept current and on-site at all time.
9. OSHA Recordkeeping – The 29 CFR 1904 Recordkeeping Standards will be used to determine the recordability of each incident.

**RESPONSIBILITIES**

1. Employee
- A. Must report all accidents, injuries and illnesses to their Supervisor immediately to ensure the proper follow-up actions are taken, which may include medical treatment and/or an investigation.
  - B. Shall be notified of their rights to medical records
  - C. Shall not be allowed to drive themselves to receive medical treatment
  - D. Shall support the investigative process and provide statements
2. Supervisor
- A. Shall provide transportation of an injured employee to a medical facility so long as the transportation cannot cause or contribute to the injury.
  - B. Can designate another employee to provide transportation of an injured employee
  - C. Shall initiate an investigation for all incidents including near miss, property damage, vehicle accidents and all injuries.
  - D. Shall secure the scene immediately
  - E. Shall complete the Employer's First Report of Injury within 24 hours for all injuries that are referred to a physician for either evaluation or treatment then sent to the Safety Management
3. Safety Management
- A. Shall enter all incidents into the system within 24 hours.
  - B. Shall notify OSHA of an amputation, loss of an eye, or fatality within 8 hours of the incident
  - C. Shall review and analyze incident file to determine root cause and provide that determination to the IRC
  - D. Shall keep and maintain all incident files on the Wilkinson Electric Safety Drive.
4. Incident Review Committee (IRC)
- A. Will review all incidents as detailed in section 4.4 of the Wilkinson Electric Safety Program.
  - B. Shall ensure the possible cause analysis and investigation shall not be used to assign blame; it shall be used as a fact-finding tool with the goal of preventing similar occurrences in the future.

**PROGRAM REQUIREMENTS**

1. **Provide Care to the injured person – 1<sup>st</sup> Priority**
- A. Only if the area is safe and by providing care does not cause injury to yourself or others
  - B. First Aid / CPR certified employees can treat minor injuries
  - C. Untrained personnel can call emergency services
  - D. All life-threatening injuries or illnesses, call 911 or site ERT
2. Steps to Control Accident Site by Supervisor:
- A. Accident site is immediately barricaded off and posting of security.
  - B. Ensure no unauthorized pictures are taken by employees with cell phones in area. If cell phones are seen they must be collected as evidence and listed on the Evidence Log book.
  - C. Nothing is to be moved, repositioned or taken from the accident scene since it could be treated as a crime scene.
  - D. An Wilkinson Electric management representative or Client security office will document any and all who cross the barricaded area for any reason. All employee(s) will be directed away from the area to an assembly point.
  - E. An Evidence Log book MUST be started to record any tools, personal items, equipment, etc. in the area.
  - F. Any pictures will be collected as evidence and will become part of the Evidence Log book.
  - G. Witnesses will be taken to a separate location to complete their statements.
    - I. Keep witnesses separated from each other until they have completed their statements and interviewed by the investigation team

**3. Incident Reporting & Notification****A. Near Miss**

- I. Employees shall report to their Supervisor immediately all near miss incidents.
- II. Supervisor reports incident to the Safety Management and Project Manager via e-mail or telephone.
- III. Wilkinson Electric management will report the incident to the Customer/Client Representative when required.

**B. First Aid on Project**

- I. Employees shall report to their Supervisor immediately all first aid incidents.
- II. Supervisor reports incident to the Safety Management and Project Manager
- III. Wilkinson Electric management will report the incident to the Customer/Client Representative when required.

**C. Exposure to Hazardous Material**

- I. Employee(s) must report all accidents, injuries, illnesses and damage to property or equipment immediately to their Supervisor
- II. Supervisor reports incident to the Project Manager
- III. Wilkinson Electric management will reports incident to the Customer/Client Representative when required.
- IV. Supervisor will notify the Safety Management within two hours to determine if additional follow-up actions are required.
- V. Safety Management reports incident to Division General Manager and Wilkinson Electric SR Vice President, Safety.

**D. Fatality or Catastrophic Event**

- I. Supervisor notifies Safety Management, Branch Manager and Project Manager immediately with information from Form A
- II. The Safety Management will notify the Wilkinson Electric SR Vice President, Safety, Wilkinson Electric Claims Manager and Division Vice President then proceeds to the location.
- III. Wilkinson Electric Safety Manager will coordinate and send an investigation team
- IV. Wilkinson Electric Vice Safety Manager upon notification will immediately conduct an emergency conference call to include Division Vice President, Wilkinson Electric Human Resources, and Safety Management.
  - 1) Assign TEAM Members
    - a) Leader – Wilkinson Electric Safety Manager – Assure reporting protocol has been followed; coordinate team's actions
    - b) Spokesperson – authorized Wilkinson Electric Corporate Representative
    - c) Supervisor – Manage the accident area
    - d) Safety Management – Assist the Wilkinson Electric investigation team; collect documentation for investigation
    - e) Human Resource Manager – Contact spouse and/or immediate family member; arrange for transportation of family; assist in providing grief counseling to family or employees
    - f) Legal Counsel
  - V. Safety Management will notify OSHA within 8 hours of the accident.
- VI. Customer /Client Assurance  
The Customer/Client shall be notified by the management team that the incident(s) and accident(s) is being investigated and kept aware of the status of each investigation. The management team will make the necessary program adjustments or recommendations to prevent recurrence.
  - 1) All written copies of the investigation report shall be submitted to Wilkinson Electric Legal.
  - 2) All required reports must be completed within 24 hours, including:
  - 3) Mandated State forms completed within 72 hours.

**4. Incident Investigation All incidents which could have possibly resulted in an accident or injury shall generate an incident report.****A. The Incident Investigation Report may consist of all or part of the following:**

- I. Statements from:
  - 1) Employee(s) involved in incident
  - 2) Supervisor of involved employee(s)
  - 3) Witness statement(s)
- II. Pre-Task Safety Huddle form.
- III. Copies of employee(s) training records.
- IV. Copies of any permit(s) required for that task.
- V. A tour of the accident scene by the Investigation Team
- VI. Request pictures are taken before moving any tools, equipment, vehicle and/or materials

- VII. Participants of the Investigation may include the following:
  - 1) The person(s) involved/injured in the accident
  - 2) Supervisor of involved employee(s)
  - 3) Project Manager
  - 4) Site Safety Manager/Supervisor
  - 5) Any witness having knowledgeable of the accident
  - 6) Any witness identified by involved/injured person
  - 7) Safety Management
  - 8) Wilkinson Electric Corporate Management Representative
  - 9) Third Party expert if required
  - 10) Manufacture representative if needed
  - 11) Customer/Client expert if needed
- VIII. Findings of the final investigation will be communicated to all Employees via safety meetings, approved Safety Bulletins, etc.
- IX. A copy of the supervisors' investigation will be sent to the Safety Management within (1) working day of the incident.
- X. Safety Management logs accident into the reporting system.
- XI. File Employers Supplemental Report of Injury (where required by state law)
- XII. Safety Management develops final investigation and Possible cause analysis and delivers to Division Vice President and Safety Manager
- B. Near Miss, Property or Material Damage, Vehicle Accident, or Potential Injury
  - I. Incident Investigation Report -minimum requirements include:
    - 1) Employee(s) involved in incident
    - 2) Supervisor
    - 3) Witness statements by those who have knowledge of the incident.
    - 4) Pre-Task Safety Huddle form.
    - 5) Copies of any permit(s) required for that task.
  - II. Equipment involved in any incident IS NOT to be moved before photos are taken unless leaving the equipment in its current condition creates a greater hazard.
  - III. A tour of the accident scene as requested
  - IV. A copy of the findings will be sent to the Safety Management within (1) working day of the incident.
  - V. The Safety Management will accumulate the findings, develop the possible cause analysis and develop the final incident report
- C. First Aid and Recordable Injuries or Illnesses
  - I. Safety Management shall be notified immediately
  - II. Any Wilkinson Electric employee that is injured in the workplace and requires or asks for medical treatment is not allowed to drive themselves to the initial visit. They must be transported by the Supervisor or designated Wilkinson Electric employee unless an ambulance or medical response team is summoned.
  - III. Any injured employee taken to a doctor office, emergency room or hospital is required to provide a valid testable urine sample post incident regardless of injury status in accordance with the Wilkinson Electric Drug Free Workplace Program.
  - IV. Any employee(s) responsible for the injury of another employee(s) must provide a valid testable urine sample post incident.
- D. Exposure to Hazardous Materials reportable to Environmental Protection Agency, Resource Conservation and Recovery Act
  - I. Safety Management shall be notified immediately
  - II. It is important to report all releases or exposures even though the accident may be considered minor or no adverse health effects or symptoms are apparent at the time.
  - III. Follow Incident Procedures – Accident: Serious Incident / Fatality / Catastrophic Event below if employee(s) are taken to a doctor.
  - IV. These records must be kept for 30 years after employee's term of employment.
  - V. A list of employees involved in a chemical exposure must be sent to the Safety Management.
  - VI. Final findings of investigation will be communicated to all employees via safety meetings, approved Safety Bulletins, etc.
  - VII. A copy of the supervisors' investigation will be sent to the Safety Management within (1) working day of the incident.
  - VIII. Safety Management will develop the final report and Possible cause and logs accident into the reporting system.

- IX. Safety Management delivers final report and Possible cause analysis to the Division General Manager and Wilkinson Electric Vice President, Safety.
- X. File Employers Supplemental Report of Injury (where required by state law)
- E. Fatality or Catastrophic Event
  - I. Safety Management shall be notified immediately
  - II. The Wilkinson Electric Safety Management will travel to the location. Wilkinson Electric Safety Manager will lead the investigation and keep the Wilkinson Electric Safety Review Board updated.
  - III. Any statement to the news media will be directed through the designated Wilkinson Electric Corporate Spokesperson.
  - IV. ONLY the HR department will notify the family.
  - V. Any injured employee taken to a doctor office, emergency room or hospital is required to provide a valid testable urine sample post incident regardless of injury status in accordance with the Wilkinson Electric Drug Free Workplace Program.
  - VI. Any employee(s) responsible for the injury of another employee(s) must provide a valid testable urine sample post incident in accordance with the Wilkinson Electric Drug Free Workplace Program.
- 5. Executive Review
  - A. Within 72 hours of the incident, the Safety Management will schedule a conference call or meeting with the Division VP, Project Manager and Foreman.
  - B. The discussion will include as a minimum the following topics:
    - I. Results of the Possible cause investigation (what and why it occurred)
    - II. Corrective actions needed to prevent reoccurrence
    - III. Confirm attendance of all employees at Safety Stand-Down meetings
    - IV. Discuss and review the safety performance and record of field supervision at the site
    - V. Programs in place concerning the accountability of field and project managers for compliance with, implementing and enforcing Wilkinson Electric Safety Programs
    - VI. Report disciplinary actions taken (if any)
    - VII. Status of supervisor and employee

**TRAINING**

- 1. Shall occur at needed

**RECORDKEEPING**

- 1. Safety Management shall decide whether the incident meets the recordability criteria in 29 CFR 1904 Recordkeeping Standards and completes the report required in section 4.4 of the Wilkinson Electric Safety Program
- 2. Safety Management will establish a call with the Incident Review Committee and present the incident report as required in Section 4.4 Wilkinson Electric Incident Review Committee Program.
- 3. The Incident Review Committee makes the final determination whether an incident is an OSHA recordable
- 4. The OSHA 300 log
  - A. The OSHA 300A Summary Report shall be generated and distributed by Safety Management and posted as required by the 29 CFR 1904 Recordkeeping Standards.
  - B. Each OSHA 300 log will be retained for five years following the end of the calendar year to which they relate.
  - C. OSHA 300 Log will be kept current during the calendar year and all recordable incidents will be logged as required by the 29 CFR 1904 Recordkeeping Standards.
  - D. The OSHA 300 log will be readily available upon request as required by the 29 CFR 1904 Recordkeeping Standards.
- 5. Access to Employee Medical Records
  - A. Employee medical records shall be preserved and maintained for at least the duration of employment plus thirty (30) years except for:
    - I. Health insurance claims maintained separately for the company medical program and its records
    - II. First aid records from company projects of a first aid level
    - III. Medical record of an employee working less than one year who received their records upon termination of employment.
  - B. Employee exposure records shall be preserved and maintained for at least thirty (30) years
  - C. Wilkinson Electric will assure access to medical and exposure records within fifteen (15) working days, excluding Saturdays and Sunday, to the employee or a designated representative, which has a written consent form.

- D. The initial request for a copy of medical and exposure files will be at no cost to the employee or their designated representative. Any new information which was not part of the initial file will also be at no charge to the employee or their designated representative. All additional copies will be charged a fee of \$150 dollars per 20 pages requested.
- E. Should analyses using medical or exposure records be requested or required by OSHA, Wilkinson Electric will remove all employee identifiers, (name, address, social security number, payroll number, age, height, weight, race, sex, date of initial employment job title, etc.) before access is provided.
- F. Employees shall be informed of their rights of access to their medical and/or exposure records during their initial orientation program as well as an update annually per Safety Topics.

**FORMS**

- 4.1.1 Near Miss Report
- 4.1.2 Incident Checklist
- 4.1.3 First Report of Incident (Involved Person)
- 4.1.4 Supervisor's Statement
- 4.1.5 Witness Statement
- 4.1.6 Physicians Permission to Treat Employee Form
- 4.1.7 Incident Cause Analysis
- 4.1.8 Corrective Actions



## Near Miss Report

Date: \_\_\_\_\_ Time: \_\_\_\_\_ a.m. p.m.

Project: \_\_\_\_\_ Branch/Office \_\_\_\_\_

Location Code: \_\_\_\_\_

Description of Incident:

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Supervisor Name: \_\_\_\_\_

Results from Investigation:

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How to Prevent Recurrence:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Investigated by:

1. \_\_\_\_\_
2. \_\_\_\_\_



## Incident Report Checklist

Employee: \_\_\_\_\_ Job # \_\_\_\_\_  
                    Last                      First                      Middle

Date of Incident: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time of Incident: \_\_\_\_\_ AM/PM

1. Notified of Incident  
 Operations Manager  
 Division Safety Manager  
 Project Manager
  
2. Type of Incident: (check all that apply)  
 First Aid                       Near Miss  
 Personal Illness or Injury    Material/Equipment Damage  
 Vehicle Accident               Mobile Equipment Damage  
 Chemical Spill                Chemical Exposure  
 Recordable Incident          Doctor First Aid
  
3. Statements Collected:  
A. Supervisor\_\_\_\_ B. Witness\_\_\_\_ C. Involved Person\_\_\_\_ (NOTE: Paperwork Signed, dated, and time)  
  
Vehicle Accident: D. Copy of Police Report\_\_\_\_ E. Copy of Other Driver Insurance\_\_\_\_ F. Pictures Taken \_\_\_\_
  
4. Drug Screen Collected:  
\_\_Job Site (paperwork is at clinic) \_\_ Doctor's Office    \_\_Hospital    \_\_Not Collected  
  
Result of Test:    \_\_Negative    \_\_Sent for follow-up testing
  
5. Doctor's First Visit (Occupational Injury/Illness Report) Status:  
\_\_ Return to Work    \_\_ Modified Work        \_\_Recordable        \_\_ Illness not job related
  
6. 1<sup>st</sup> Report Entered into System: \_\_ WC Claim    \_\_ Vehicle Claim  
  
Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Claim #: \_\_\_\_\_
  
7. All Paperwork Sent To EH&S Manager: (date) \_\_\_\_/\_\_\_\_/\_\_\_\_
  
8. Pictures Taken  
Employee Injury    Yes    No  
  
Tool or Equipment    Yes    No  
  
Location and Area    Yes    No
  
9. Pre-Task Safety Huddle Collected \_\_\_\_

Comments:  _____  _____  _____  _____
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## First Report of Incident (Involved Person)

**Type of Incident:** Vehicle Accident; Equipment Damage; Personal Illness; Chemical Exposure; Near Miss; First Aid Only; Dr. Visit

Supervisor Name: \_\_\_\_\_ Job Number: \_\_\_\_\_

Your Name: \_\_\_\_\_ Contact Phone Number: \_\_\_\_\_

Craft/Position: \_\_\_\_\_ Length of Time in This Craft: \_\_\_\_\_ How long on this project: \_\_\_\_\_

Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_ Age: \_\_\_\_\_ Sex: Male / Female

Body Part(s) Injured: \_\_\_\_\_ Left or Right

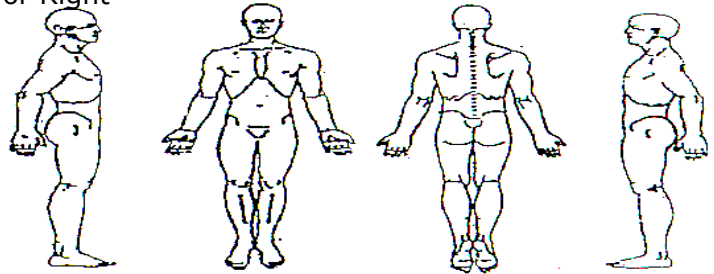
Please locate the injured area on the picture(s) →

Date of Incident: \_\_\_\_/\_\_\_\_/\_\_\_\_

Mon, Tues, Wed, Thurs, Fri, Sat, Sun

Time of Incident: \_\_\_\_\_ a.m. / p.m.

Start of Shift: \_\_\_\_\_ a.m. / p.m.



Project Address: \_\_\_\_\_

Exact Location of Incident: \_\_\_\_\_

Your purpose/function for being in area: \_\_\_\_\_

Activity before incident: \_\_\_\_\_

How Did Incident Happen? \_\_\_\_\_

Do you know of any witness that observed the incident? NO YES (if YES, please list below)

1. \_\_\_\_\_ 2. \_\_\_\_\_

How Could This Have Been Prevented? \_\_\_\_\_

Was there anything abnormal prior to the incident?

Are there any comments you would like to add to this incident?

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date



## Supervisor's Statement

You Work For: \_\_\_\_\_ Company Phone: \_\_\_\_\_

Your Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: Male / Female

Position Title: \_\_\_\_\_ Your Phone for future contact, if needed: \_\_\_\_\_

Length of Time in This Position: \_\_\_\_\_ How long on this project/unit area: \_\_\_\_\_

Name of Involved Person(s):

1. \_\_\_\_\_ 2. \_\_\_\_\_

Name of witness(es):

1. \_\_\_\_\_ 2. \_\_\_\_\_

Date of Incident: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

Time Incident Was Reported to You: \_\_\_\_\_ a.m. / p.m. Weather Condition: \_\_\_\_\_

Your location when incident occurred:

\_\_\_\_\_  
\_\_\_\_\_

Please describe what you know of this incident:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Immediate Corrective Action:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are there any permits, procedures or training guides and records, which are related to the incident?

NO YES (if YES, please explain):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How Could This Have Been Prevented?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Was there anything abnormal prior to the incident?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature \_\_\_\_\_

Today's Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_





## Witness Statement

You Work For: \_\_\_\_\_ Company Phone: \_\_\_\_\_

Your Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: Male / Female

Craft/Position: \_\_\_\_\_ Phone for future Contact if needed: \_\_\_\_\_

Length of Time in This Craft/Position: \_\_\_\_\_ How long on this project/unit area: \_\_\_\_\_

Your purpose/function for being in area: \_\_\_\_\_

\_\_\_\_\_

Date of Incident: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

Time of Incident: \_\_\_\_\_ a.m. / p.m. Weather Condition: \_\_\_\_\_

Your location when incident occurred: \_\_\_\_\_

\_\_\_\_\_

Action taken by witness initially/follow up: \_\_\_\_\_

\_\_\_\_\_

Please describe what you know of this incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Are there any procedures or training guides and records which are related to the incident? NO YES (if YES, please explain)

How Could This Have Been Prevented?

Was there anything abnormal prior to the incident?

Are there any comments you would like to add to this incident?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Supervisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Physician Permission to Treat Employee

**PLEASE PROVIDE TREATMENT TO THE EMPLOYEE LISTED BELOW**

Name of Employee (Last, First, Middle Initial) <i>please print</i>		<input type="checkbox"/> Male <input type="checkbox"/> Female	Date Incident Reported to Company / / Mon; Tues; Wed; Thurs; Fri; Sat; Sun
Social Security Number	Employee I.D. Number	Date of Birth / /	
Address: <i>please print</i>			Home Phone Number ( ) -
Injury Date: / / Mon; Tues; Wed; Thurs; Fri; Sat; Sun	Time of Injury:  p.m.                      a.m. /	Nature of Incident:	
Job Number:	Exact Location of Incident:		
Occupation of Employee:		Supervisor's ID Number	
To Doctor / Hospital:		Address:	
Description of Incident:			
Treatment Authorized By:		Telephone Number:	

**REFUSAL OF FIRST TIME VISIT TO COMPANY SELECTED  
PHYSICIAN & DRUG SCREEN MAY RESULT IN LOSS OF BENEFITS**

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_                      **Signature:** \_\_\_\_\_

**Reason:** \_\_\_\_\_

**Company Representative:**

**Witness:**

I hereby consent to the release of my medical records from any health care provider, insurance company, government agency or Employer's Representative, including any and all information in such records, confidential or otherwise, which the provider may acquire in the course of their examination or treatment of me for the injury/illness described above. I understand that this could include medical, drug, alcohol, or psychiatric treatment related to the above described injury/illness. Such release is for the purpose of investigation of my medical condition as it relates to my return to work status and/or payment that I may be entitled to pursuant to company return to work status and/or payment that I may be entitled to pursuant to company benefit plans. Although I understand that I have the right to be examined without the presence of Employer Personnel, at this time I request that a Employer Representative be allowed to be present during my examination at the treating medical facility. I understand that this release shall continue in effect for the duration of my claim not to exceed 24 months. I understand that I can revoke this authorization at any time.

Employee's Signature:	Date: / /	Company Representative
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**TO BE COMPLETED BY PHYSICIAN OR CARE GIVER**

Date Of Treatment: / /	Arrival Time:	Departure Time:
Diagnosis And Diagnostic Test:	Injury/Illness:	
Prognosis:		
Referral: (Name/Specialty)	Referral's Telephone Number: ( ) -	
___ Non-Occupational ___ Occupational ___ Unknown                      ___ Personal Illness	Work Status: ___ Return To Work ___ Admit to Hospital ___ Other	
Date Discharged From Care: / /	Next Appointment and Time:	
Employer's Representative Notified:	___ BY PHONE                      ___ IN PERSON	
Physician Telephone Number:		
Physician's Name	Physician's Signature	



## Incident Possible Cause Analysis Completed Division Safety Manager

**Project:** \_\_\_\_\_

**Incident Type:** \_\_\_\_\_

**Date and Time of Incident:** \_\_\_\_\_

**Date Investigation Began:** \_\_\_\_\_

**Date Presented for Review:** \_\_\_\_\_

**Injured Employee:** \_\_\_\_\_

**Job Classification:** \_\_\_\_\_

**Incident Location:** \_\_\_\_\_

**Summary of Incident:**

**Actions Immediately Following Incident:**

**Contributing Factor(s):**

1. Following Program Requirements
  - A. Violation (by individual): one individual fully aware that he was taking a risk but still decided to do the job that way.
  - B. Violation (by group): people fully aware that they were taking a risk but still decided to do the job that way, e.g., solving a problem knowing that they have to infringe on the rules.
  - C. Violation (by supervisor): a supervisor or other management person fully aware that he was taking a risk but still decided to do the job that way.
  - D. Operation of equipment without authority: the person involved operated equipment for which he was not authorized to do so, either because he did not have work permit or, for the person working in his own department, he was told by his supervisor he was not allowed to work on it. This also applies in situations where operating the equipment is not in the person's job description and, therefore, understood that he is not authorized to operate the equipment, e.g., operating a forklift without training or operating process equipment that is not included in the worker's job function.
  - E. Improper position or posture for task: the person did not follow the human kinetic practices. The person was working on an unsafe, unstable or non-standard work floor or was placing body parts in unsafe positions.
  - F. Overexertion of physical capability: did more than a person is physically able to do, e.g., carrying too much weight, etc.
  - G. Work or motion at improper speed: the person involved was not working at the proper speed, not taking time to do things safely, e.g., driving too fast, running or adding chemicals too fast or too slow, etc.
  - H. Improper lifting: material being lifted, either by human or mechanical means, was lifted contrary to proper practices or was over the capacity of the person or the lifting equipment.
  - I. Improper loading: the equipment was improperly loaded, e.g., a vehicle or centrifuge loaded to one side or overloaded or wrong product in wrong cycle.
  - J. Shortcuts: the person involved in the work took a shortcut instead of performing the work in accord with the procedure.
  - K. Other: if none of the above categories apply, this category can be used.

2. Use of Tools or Equipment
  - A. Improper use of equipment: equipment was used for activities for which it was not designed, or equipment was misused, e.g., operating equipment beyond the maximum recommended temperature.
  - B. Improper use of tools: tools were used for activities for which they were not designed, or tools were misused, e.g., possibly wrong tool for job, using excessive force on a tool, etc.
  - C. Use of defective equipment (aware): knowing that the equipment was defective and still going on with the work, e.g., running a forklift with leaking hydraulics.
  - D. Use of defective tools (aware): knowing that the tools were defective and still using them.
  - E. Improper placement of tools, equipment or materials: material or equipment placed in potentially hazardous position.
  - F. Operation of equipment at improper speed: an operating limit was exceeded - the speed of a grinding wheel, the assembly line was speeded up, operating throughput was surpassed, etc.
  - G. Servicing of equipment in operation: an attempt was made to service equipment without turning it off - trying to clear a jammed machine, rodding out a plugged line, etc.
  - H. Other: if none of the above categories apply, this category can be used.
3. Use of Protective Methods
  - A. Lack of knowledge of hazards present: knowing that the situation was not normal, the person involved in the incident was not warned about the hazards.
  - B. Personal Protective Equipment not used: equipment prescribed in the procedures was not used.
  - C. Improper use of Personal Protective Equipment: the required Personal Protective Equipment was used, but it was not used in the proper way, e.g., non-fitting gas mask or wrong size of safety glasses or incorrect type of respirator, not maintaining or inspecting the equipment correctly.
  - D. Servicing of energized equipment: the equipment was not electrically or mechanically safeguarded according to lockout, red tag or line and equipment opening procedures.
  - E. Equipment or materials not secured: equipment, materials or person was not secured against movement or falling, e.g., ladder not secured, load not rigged properly, no toe boards on scaffolding, etc.
  - F. Disabled guards, warning systems or safety devices: the proper guards, warning systems or other safety devices were in place, but were disabled or overridden to allow the work to proceed without these protections.
  - G. Removal of guards, warning systems or safety devices: the proper guards, warning systems or other safety devices had been removed at some time prior, and not reinstalled or reactivated.
  - H. Personal Protection Equipment not available: the necessary personal protective equipment was not available at the job site.
  - I. Other: if none of the above categories apply, this category can be used.
4. Inattention/Lack of Awareness
  - A. Improper decision making or lack of judgment: the situation was wrongly judged, and the wrong decision was made.
  - B. Distracted by other concerns: the person involved was distracted and not attentive to the work in progress; therefore, the person was not aware or aware too late that something had gone wrong.
  - C. Inattention for footing and surroundings: the person was just walking around and did not notice the obstacle or the surface conditions of the ground.
  - D. Horseplay: person(s) involved in the event were engaged in inappropriate activities, including practical jokes or clowning around.
  - E. Acts of violence: any type of physical or mental confrontations that can cause bodily injury or mental anguish.
  - F. Failure to warn: an individual had knowledge of a dangerous condition or activity but did not warn current or future persons of the exposure, e.g., not tagging a defective tool.
  - G. Use of drugs or alcohol: person(s) involved in the event were determined to be under the influence of drugs or alcohol.
  - H. Routine activity without thought: the person involved was performing a routine activity, such as walking, sitting down, stepping, etc., without conscious thought, and was exposed to a hazard as a result.
  - I. Other: if none of the above categories apply, this category can be used.
5. Protective Systems
  - A. Inadequate guards or protective devices: adequate guards and protective devices that were needed to protect the worker were not present.
  - B. Defective guards or protective devices: guards and protective devices were installed but failed at the time of the incident.
  - C. Inadequate Personal Protective Equipment: Personal Protective Equipment used was not adequate for the situation at the time of the incident or the wrong type of Personal Protective Equipment was specified.

- D. Defective Personal Protective Equipment: Personal Protective Equipment was sufficient, but the Personal Protective Equipment used was defective at the time of the incident.
  - E. Inadequate warning systems: adequate warning systems were present but failed to provide notice at the time of the incident.
  - F. Defective warning systems: adequate warning systems were present but failed at the time of the incident.
  - G. Inadequate isolation of process or equipment: the equipment was not properly isolated, and the people involved were exposed to chemicals, hot surfaces, electricity, etc.
  - H. Inadequate safety devices: safety devices such as pressure relief valves or turbine over speed trips were present but did not act quickly enough to prevent the accident.
  - I. Defective safety devices: safety devices such as pressure relief valves or turbine over speed trips failed to activate.
  - J. Other: if none of the above categories apply, this category can be used.
6. Tools, Equipment & Vehicle
- A. Defective equipment: the right equipment was selected but the equipment involved was defective.
  - B. Inadequate equipment: the necessary equipment needed to do the job was in some way inadequate or not supplied.
  - C. Improperly prepared equipment: the equipment was not prepared adequately prior to the job or maintenance work, e.g., a vessel not thoroughly cleaned of process chemicals prior to entry.
  - D. Defective tools: the right kind of tool was selected but the tool involved was defective.
  - E. Inadequate tools: the tools were not adequate for this purpose, or the proper tools were not supplied.
  - F. Improperly prepared tools: the tools were not prepared properly before the job, e.g., not repaired properly or not cleaned of contaminants.
  - G. Defective vehicle: the right type of vehicle was being used, but the vehicle was defective.
  - H. Inadequate vehicle for the purpose: the necessary type of vehicle to perform the function was not available, e.g., forklift being used as a crane.
  - I. Improperly prepared vehicle: the right vehicle was being used, but the vehicle had not been properly repaired or serviced for use.
  - J. Other: if none of the above categories apply, this category can be used.
7. Work Exposure to
- A. Fire and explosion: the incident was caused by a fire and/or explosion.
  - B. Noise: the incident was caused by a short-term exposure to extremely high noise levels or by continuous overexposure to noise, e.g., shock effect, process equipment, and high noise-producing tools.
  - C. Energized electrical systems: incident caused by system not fully de-energized.
  - D. Energized systems, other than electrical: incident was caused by a system not fully isolated from gravitational, pneumatic, hydraulic or chemical energy sources.
  - E. Radiation: the incident was caused by dangerous radiation, e.g., x-ray, high frequency radiation, laser, etc.
  - F. Temperature extremes: the incident was caused by an exposure to extreme high or low temperatures.
  - G. Hazardous chemicals: the incident was caused by extremely hazardous chemicals used in the process, e.g., reactive, toxic or ecologically dangerous chemicals.
  - H. Mechanical hazards: incident caused by sharp edges, moving equipment, etc.
  - I. Clutter or debris: housekeeping was inadequate, or work location was not clean and orderly.
  - J. Storms or acts of nature: the incident was a direct or indirect result of a storm, tornado, hurricane, hail storm, etc.
  - K. Slippery floors or walkways: the incident was caused by a slippery walking or working surface.
  - L. Other: if none of the above categories apply, this category can be used.
8. Work Place Hazards
- A. Congestion or restricted motion: layout of the workplace was poor and not enough clearances were available or accessibility to equipment or tools was poor.
  - B. Inadequate or excessive illumination: the workplace was poorly illuminated, or the visibility was poor.
  - C. Inadequate ventilation: poor ventilation, e.g., the temperature could rise too high, concentrations of chemicals could rise, or oxygen levels could decrease, etc.
  - D. Unprotected height: a contributing factor was work at an unprotected height, e.g., scaffold building, in towers, or on roofs, etc.
  - E. Inadequate work place layout: the controls, labels or displays used to monitor the work were not adequate, e.g., the controls were out of normal reach, labels or displays were out of sight. Can also include misinformation - such as mislabeled equipment or chemicals.
  - F. Other: if none of the above categories apply, this category can be used.

## 9. Physical Capabilities

- A. Vision deficiency: the incident happened because the person involved had a vision deficiency, e.g., could not see over long distance, could not see alarms on the panel, etc.
- B. Hearing deficiency: the incident happened because the person involved had a hearing deficiency, e.g., could not hear the alarm.
- C. Other sensory deficiency: a deficiency, like reduced feel or smell, contributed to the incident.
- D. Reduced respiratory capacity: asthma, silicosis, asbestosis, and other related diseases contributed to the incident or seriousness of the incident.
- E. Other permanent physical disabilities: all other physical disabilities not mentioned above, e.g., weak back, ankles, etc.
- F. Temporary disabilities: disabilities which are temporary like broken bones, muscle pain, migraine headache, etc.
- G. Inability to sustain body positions: the incident happened because the person involved did not have the capability to sustain the required body position for a longer time.
- H. Restricted range of body movement: a physical condition restricted the person's movement and wasn't planned for in the job activity, e.g., a temporary or permanent physical disability, wearing of Personal Protective Equipment, unusual weight, unusual heights, etc.
- I. Substance sensitivities or allergies: the person involved in the incident was medically proven to be allergic or sensitive to the substances involved.
- J. Inadequate size or strength: the person assigned to the work did not have the size or strength to complete the task safely, e.g., couldn't reach, couldn't lift.
- K. Diminished capacity due to medication: the side effects of medication limited the person's physical capability.
- L. Other: if none of the above categories apply, this category can be used.

## 10. Physical Conditions

- A. Previous injury or illness: the incident happened because the person involved was ill (fever or any other kind of illness) or had an existing injury before the incident happened.
- B. Fatigue: the person involved in the incident was fatigued due to workload or to lack of rest, e.g., too long working hours without time to relax, working more than 8 hours per shift, working double shifts over a long period of time, or working for a too long period (e.g., no days off over a period of more than seven days).
- C. Diminished performance: the surroundings or conditions have led to less than ordinary performance, e.g., temperature extremes, lack of oxygen due to high elevations, atmospheric pressure changes, such as encountered during diving work.
- D. Blood sugar deficiency: at the time of the incident, the person involved had a too low blood sugar. This should be medically established.
- E. Impairment due to drug or alcohol use: at the time of the incident, the person involved was under the influence of alcohol or drugs.
- F. Other: if none of the above categories apply, this category can be used.

## 11. Mental State

- A. Poor judgment: although the person involved was well trained at the time of the incident, the person did not choose an appropriate course of action.
- B. Memory failure: although the person involved was well trained at the time of the incident, the person could not remember how to act or react.
- C. Poor coordination or reaction time: although the person involved knew exactly which actions to take, the person was not capable of coordinating all the required actions or the reaction time was too long.
- D. Emotional disturbance: the incident happened because the person involved was emotionally disturbed.
- E. Fears or phobias: the incident happened because the person involved had a fear or phobia, e.g., someone who is afraid of working on heights, climbing ladders or claustrophobia, etc.
- F. Low mechanical aptitude: the person was confused on what actions to take because they did not understand basic elements of how mechanical things work.
- G. Low learning aptitude: the person involved had been well trained but was confused due to limited learning capability.
- H. Influenced by medication: the person's mental state was diminished due to side effects of medication (e.g., drowsy, light-headed)
- I. Other: if none of the above categories apply, this category can be used.

## 12. Mental Stress

- A. Preoccupation with problems: the person involved in the incident was preoccupied with problems and was not fully concentrated on the activities in progress, e.g., problems at work or at home.



- B. Frustration: the incident happened because the person involved was frustrated, e.g., no promotion, never received a positive reward from his supervisor, doing his very best and seeing no results, etc.
- C. Confusing directions/demands: the person involved in the incident felt the work was not well-defined with proper direction or demands. Can be the result of too many people giving orders.
- D. Conflicting directions/demands: conflicting directions or demands led to an incident, e.g., a rush job but still having to follow all the time-consuming safety procedures.
- E. "Meaningless" or "degrading" activities: the person involved in the incident felt the work the person was doing was meaningless, e.g., cleaning up and the next day it is filthy again, degrading or too much experience or education for this low classified job.
- F. Emotional overload: the person was under high stress from either work or personal issues that affects their emotional state.
- G. Extreme judgment/decision demands: the work being done required judgment and decision making that created stress, e.g., time sensitive decisions, high stakes in the outcome, incomplete information in which to base the decision.
- H. Extreme concentration or perception demands: the work environment contributed to the incident, as the work required great concentration, e.g., a person is so absorbed in what they are doing, and they fail to recognize a hazard.
- I. Extreme boredom: the person is adversely affected by monotonous or repetitive work.
- J. Other: if none of the above categories apply, this category can be used.

### 13. Behavior

- A. Improper performance is rewarded: although the supervisor knew that the person was not following the safety procedures, guidelines or JSAs, the person was rewarded because the job was completed quickly. The worker may also have felt rewarded by performing improperly, e.g., if by taking shortcuts, an unpleasant job is finished quicker.
- B. Improper supervisory example: supervisors not giving the proper example to the people working in their organizations.
- C. Inadequate identification of critical safe behaviors: in the organization, it was not well identified which safe behaviors were critical to preventing incidents.
- D. Inadequate reinforcement of critical behaviors: a supervisor seeing someone not following the safety procedures and guidelines and not correcting immediately is an example of inadequate reinforcement of proper behavior. Similarly, supervisors must note when employees are performing correctly to reinforce the proper performance. Peer pressure can also play a role if proper performance is criticized.
- E. Inappropriate aggression: either the people were aggressive, or actions were done, and decisions were taken in an aggressive way without really having an overview of the consequences.
- F. Improper use of production incentives: the use of incentives for production or timeliness have created an incentive to ignore safety requirements.
- G. Supervisor implied haste: the incident was caused by the supervisor's implication that speed in completing the work was more important than safety considerations.
- H. Employee implied haste: the incident was caused by the employee's assumption that speed in completing the work was more important than safety considerations.
- I. Other: if none of the above categories apply, this category can be used.

### 14. Skill Level

- A. Inadequate assessment of required skills: the person involved believed they had the proper skills to perform the work, but in fact, lacked required skills.
- B. Inadequate practice of skill: the person involved was theoretically experienced but lacked practice in performing the task.
- C. Infrequent performance of skill: the person was trained in the job, but the activity involved in the incident was done on a very low frequency or the person involved rarely performed the activity.
- D. Lack of coaching on skill: the incident happened because the person involved did not have the coaching of a supervisor or experienced co-worker.
- E. Insufficient review of instruction to establish skill: the person involved had training but was not given the opportunity to practice or perform the task as part of training to firmly establish the skill.
- F. Other: if none of the above categories apply, this category can be used.

### 15. Training/Knowledge Transfer

- A. Inadequate knowledge transfer: a well-developed training effort was in place but failed to transfer the necessary knowledge. Reasons for this could include the inability of students to comprehend (material beyond their level, language difficulties), inadequate instructor qualifications, inadequate training equipment (lack of props or means to illustrate the topic) or misunderstood directions on the part of the students.

- B. Inadequate recall of training materials: a well-developed training effort was successful in transferring the necessary knowledge, but students were not able to recall the material when needed. This could be the result of training not being reinforced on the job, or an inadequate retraining frequency.
  - C. Inadequate training effort: some training was conducted, but it failed to accomplish the necessary knowledge transfer. Potential causes include inadequate training program design, poorly developed training objectives, inadequate orientation programs, inadequate initial training efforts or poor means to determine if students have indeed mastered the material being taught.
  - D. No training provided: there was no effort made to train the particular person in this subject. Reasons for this can include a failure to identify training was necessary, reliance on out of date or inaccurate training records, a change in work methods or a conscious decision to forego training.
  - E. Other: if none of the above categories apply, this category can be used.
16. Management/Supervision/Employee Leadership
- A. Conflicting roles/responsibilities: who was to be responsible for what was not clear and well defined. This could include unclear reporting relationships, unclear assignments of responsibilities, improper delegation or conflicting situations where more than one party appears to be responsible for the same issue.
  - B. Inadequate leadership: the person assigned with the responsibility for aspects of safety had not carried out their responsibility to the degree necessary for safe work. This could include, lax standards of performance being tolerated, inadequate accountability for safety performance, and little performance feedback, inadequate knowledge of conditions at the work site or inadequate safety promotion.
  - C. Inadequate correction of worksite/job hazards: a hazard or incident had previously occurred to draw attention to a deficiency, but there was an inadequate effort to correct that deficiency.
  - D. Inadequate identification of worksite/job hazards: the incident was caused by the failure to perform or properly respond to a loss exposure study, such as a HAZOP review or Job Safety Analysis.
  - E. Inadequate management of change system: the incident happened because a system or procedure did not exist or was incomplete to ensure that changes which affect the process are adequately assessed, documented and communicated.
  - F. Inadequate incident reporting/investigation system: the incident reporting and investigation procedures and guidelines were not followed for incidents that happened in the department. Therefore, the learning experiences and recommendations that could have prevented similar incidents were not discovered or lack of tracking system to ensure follow-up was done or not communicating the results of the investigations.
  - G. Inadequate or lack of safety meetings: safety meetings were not held or did not transfer essential knowledge about safety issues related to the incident.
  - H. Inadequate performance measurement and assessment: the means to measure and track safety performance were inadequate, leaving the organization unsure of what needed to be done.
  - I. Other: if none of the above categories apply, this category can be used.
17. Contractor Selection and Oversight
- A. Lack of contractor pre-qualification: a contractor firm was hired to perform work without successfully completing a pre-qualification review.
  - B. Inadequate contractor pre-qualifications: a pre-qualification review was conducted, but it failed to identify deficiencies in the contractor's capabilities.
  - C. Inadequate contractor selection: the selection of a contractor was made without all relevant data, or without proper consideration of safety capabilities.
  - D. Use of a non-approved contractor: a contractor firm who did not meet pre-qualification criteria was hired to perform work.
  - E. Lack of job oversight: a contractor firm's work was not inspected or audited to identify deficiencies in outcomes or methods.
  - F. Inadequate oversight: a contractor firm's work was inspected or audited, but deficiencies present were not identified.
  - G. Other: if none of the above categories apply, this category can be used.
18. Engineering/Design
- A. Inadequate technical design: the incident was caused by a poor technical design, weak materials of construction, valves in the wrong spot, lines in walkways, etc. The reasons for inadequate technical design can be faulty input into the design process (bad information) or faulty design output (a bad design).
  - B. Inadequate standards, specifications and/or design criteria: although the design criteria and specifications had been followed, the specifications and criteria were not adequate and had to be adapted.
  - C. Inadequate assessment of potential failure: the incident was caused by the fact that the potential failure was not assessed in the initial design stage.

- D. Inadequate ergonomic design: the incident was caused by a poor ergonomic design, meaning that there was not an optimal tuning between the equipment and human working with the equipment.
- E. Inadequate monitoring of construction: although all design specifications and criteria had been followed, inspections during the construction were not done adequately.
- F. Inadequate assessment of operational readiness: the incident happened because either the procedure for handover from construction to production was not followed, software changes were not fully tested, or operating manuals and training were not completed.
- G. Inadequate monitoring of initial operation: the incident happened because there was not enough monitoring and analyses of the initial operation information.
- H. Inadequate evaluation and/or documentation of change: the incident happened because unevaluated changes were made, and an unsafe situation was introduced. Documentation and communication of the changes was required and could have been overlooked.
- I. Other: if none of the above categories apply, this category can be used.

**19. Work Planning**

- A. Inadequate work planning: the work being done was not planned in terms of people, equipment, materials, procedures or permits.
- B. Inadequate preventive maintenance: the incident happened because the failing piece of equipment was not included in a preventive maintenance program, was overdue or was wrongly overhauled.
- C. Inadequate reparative maintenance: the incident happened because the equipment failed due to wrong or insufficient reparative maintenance.
- D. Excessive wear and tear: the incident happened because the equipment that failed showed excessive wear and tear due to corrosion, erosion, misuse, etc.
- E. Inadequate reference materials or publications: the person doing the work did not have the proper owner's manual, vendor information, repair procedures, etc. to have proper knowledge to do the work.
- F. Inadequate audit/inspection/monitoring: the incident happened because the equipment failed due to inadequate audit, inspection and monitoring because the required audit/inspection/monitoring was not done adequately or was not done at all.
- G. Inadequate job placement (wrong person for the job): the selection process was not successful in choosing a suitable worker for the particular job assignment.
- H. Other: if none of the above categories apply, this category can be used.

**20. Purchasing, Material Handling & Material Control**

- A. Incorrect item received: the correct item was ordered, but an incorrect item was received. Reasons for this can include incorrect specifications to vendors, inaccurate information on the requisition, and inadequate control on who can modify orders, an unauthorized substitution by the vendor, inadequate product acceptance procedures or a failure to verify receipt of proper goods.
- B. Inadequate research on materials/equipment: the lack of knowledge led to the wrong item being ordered.
- C. Inadequate mode or route of shipping: the hazard was created during shipment of the item - either by lost custody or product degradation.
- D. Improper handling of materials: the hazard was created due to improper handling of the material.
- E. Improper storage of materials or spare parts: the hazard was created as the item degraded while in storage.
- F. Inadequate material packaging: the hazard was created when the item was damaged due to improper packaging.
- G. Material shelf life exceeded: the hazard was created when outdated materials were used.
- H. Improper identification of hazardous materials: the materials were not properly identified, and appropriate handling procedures were not used.
- I. Improper salvage or waste disposal: the hazard was created when an item was improperly de-commissioned and disposed.
- J. Inadequate use of health and safety data: the hazard was created when relevant health and safety information was not exchanged or used.
- K. Other: if none of the above categories apply, this category can be used.

**21. Tools and Equipment**

- A. Inadequate assessment of needs and risks: the wrong tools and equipment were provided, as a result of the faulty assessment of what was needed to properly perform the work.
- B. Inadequate human factors/ergonomics considerations: the tools and equipment provided did not reflect the needs of the person performing the work.
- C. Inadequate standards or specifications: improper tools and/or equipment was provided, as a result of inadequate standards or specifications covering what should have been provided.
- D. Inadequate availability: the needed tools or equipment were not available at the job site.

- E. Inadequate adjustment/repair/maintenance: the proper tools and equipment were available but were not in good repair when used.
  - F. Inadequate salvage and reclamation: tools and equipment that were removed from service for overhaul were not properly repaired or destroyed, creating a hazard.
  - G. Inadequate removal or replacement of unsuitable items: items that were no longer serviceable remained on the equipment.
  - H. No equipment record history: a hazard was created as a result of a failure to maintain proper records on the equipment.
  - I. Inadequate equipment record history: records were maintained but failed to properly identify a hazard.
  - J. Other: if none of the above categories apply, this category can be used.
22. Work Rules/Policies/Standards/Procedures (PSP)
- A. Lack of PSP for the task: there were no written PSP covering the work being performed at the time of the incident. This could be the result of a failure to assign responsibility for the development of PSP, or the failure to complete an adequate job safety analysis for the task.
  - B. Inadequate development of PSP: there were some PSP in place, but the PSP that were developed did not fully meet the needs of the work. This could be the result of inadequate co-ordination with design efforts, having unknowledgeable people developing the PSP, not identifying the proper steps to take in problem situations or a poor format that made the PSP difficult to use.
  - C. Inadequate implementation of PSP, due to deficiencies: there were PSP in place, but the implementation of the PSP was not complete due to deficiencies in these documents. This could include such things as contradictory requirements, confusing formats, inaccurate sequence of steps, technical errors, incomplete instructions, etc.
  - D. Inadequate enforcement of PSP: well-crafted PSP were in place, but their use was not properly enforced, for reasons such as inadequate monitoring of the work being done, inadequate supervisory knowledge of what was to be done or inadequate reinforcement with labels or signs.
  - E. Inadequate communication of PSP: there was an appropriate PSP in place, but it had not been properly communicated. This could be the result of incomplete distribution, language difficulties, incomplete integration with training efforts or out of date PSP still in use.
  - F. Other: if none of the above categories apply, this category can be used.
23. Communication
- A. Inadequate horizontal communication between peers: incident happened because there was no communication or no adequate communication between peers and colleagues.
  - B. Inadequate vertical communication between supervisor and person: incident happened because there was no communication or no adequate communication between supervision and workers, top bottom and bottom up in the same organization.
  - C. Inadequate communication between different organizations: organizations other than their own were not properly informed.
  - D. Inadequate communication between work groups: the incident occurred because two or more individuals or groups were working on the same task but did not properly communicate.
  - E. Inadequate communication between shifts: the incident occurred due to poor shift handover procedures, e.g., workers not expected to write a detailed account of problems in a log.
  - F. Inadequate communication methods: the normal means of communicating information were not adequate - phone lines busy, static on radios, writing was illegible, etc.
  - G. No communication method available: the proper tools (telephone, computer, mail, paging system for emergencies, tapes and recorder, slides and projector boards) were not available.
  - H. Incorrect instructions: the person involved was given instructions; but the instructions were not understood as meant, and they were unclear or incomplete.
  - I. Inadequate communication due to job turnover: the person starting a task was not around to finish it, and those assigned to complete the work did not have the necessary information.
  - J. Inadequate communication of safety and health data, regulations or guidelines: the safety and health data and new regulations were not discussed with the people performing the work.
  - K. Standard terminology not used: incident happened because either terminology were different departments or there was confusion, e.g., different pieces of equipment have the same numbers. Standard codes and practices were not followed, e.g., color coding for lines, electrical, etc.
  - L. Verification/repeat back techniques not used: a verbal message was misunderstood and went unidentified because there was no verification/repeat back of the message by the recipient.
  - M. Messages too long: confusion arose due to the length of the message.
  - N. Speech interference: a verbal message was not properly transmitted due to background noise, static or other distractions.
  - O. Other: if none of the above categories apply, this category can be used.

## Corrective Actions

### Determined and Implemented by Operations

**Proposal for Corrective Action(s):**

<b>1. Contributing Factor:</b>		
<b>Corrective Action:</b>		
<b>Responsible Party</b>	<b>Target Date</b>	<b>Approved, Modified Or Added by Management</b>

<b>2. Contributing Factor:</b>		
<b>Corrective Action:</b>		
<b>Responsible Party</b>	<b>Target Date</b>	<b>Approved, Modified Or Added by Management</b>

<b>3. Contributing Factor:</b>		
<b>Corrective Action:</b>		
<b>Responsible Party</b>	<b>Target Date</b>	<b>Approved, Modified Or Added by Management</b>

<b>4. Contributing Factor:</b>		
<b>Corrective Action:</b>		
<b>Responsible Party</b>	<b>Target Date</b>	<b>Approved, Modified Or Added by Management</b>

<b>5. Contributing Factor:</b>		
<b>Corrective Action:</b>		
<b>Responsible Party</b>	<b>Target Date</b>	<b>Approved, Modified Or Added by Management</b>

<b>6. Contributing Factor:</b>		
<b>Corrective Action:</b>		
<b>Responsible Party</b>	<b>Target Date</b>	<b>Approved, Modified Or Added by Management</b>

Division Safety Manager: \_\_\_\_\_

\_\_\_\_\_  
Team Member (Print)

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Team Member (Print)

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Team Member (Print)

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Team Member (Print)

\_\_\_\_\_  
Title:

## Communications Program

### PROGRAM STATEMENT

This program establishes protocol to disseminate findings and corrective/control measures to the workforce in the event of a recordable injury. The Safety Department shall develop a Safety Bulletin in response to an incident resulting in serious property damage or a significant near miss.

### DEFINITIONS

1. Approved Safety Bulletin – reviewed and approved by Wilkinson Electric Corporate Safety Department

### RESPONSIBILITIES

1. Wilkinson Electric Corporate Safety shall review draft and provide update prior to distribution
2. Safety Management
  - A. Shall prepare a draft and submit to Wilkinson Electric Corporate Safety Department for final approval
  - B. Safety Management distributes the *Approved* Safety Bulletin
  - C. Wilkinson Electric Corporate Safety Department distributes Safety Bulletin to any site with similar tasks
3. Supervisor
  - A. Shall hold a Safety Stand-Down meeting to share the Safety Bulletin with all project employees
  - B. Shall require all employees on their project to attend the stand-down

### PROGRAM REQUIREMENTS

1. The Safety Bulletin
  - A. As soon as possible after the completion of the accident investigation/root cause analysis, the Safety Department will develop a Safety Bulletin and forward it to the Wilkinson Electric Safety Department.
  - B. Upon review and approval, the bulletin will be distributed to the location where the incident occurred and any other divisions where pertinent.
  - C. Safety Bulletins are intended to:
    - I. Inform and educate the workforce regarding a specific event or hazard that has recently caused or nearly caused injury or property damage and understand and identify corrective/control measures to help prevent similar events.
    - II. Safety Bulletins will consist of four sections:
      - 1) What Happened
      - 2) Resulting injury/property damage
      - 3) Possible Cause(s)
      - 4) Corrective/Control Measures
      - 5) Upon receipt, Safety Management will distribute the Safety Bulletin to all branches, PMs and Branch Managers within their division who will distribute it to the field and service managers. E-mail confirmation of distribution will be sent to the Safety Department.
2. Safety Stand-Down Meeting
  - A. Within 24 hours of receipt of a Safety Bulletin, Supervisors will conduct a Safety Stand-Down Meeting which shall be attended by all employees on the project.
  - B. Any employee not present will be briefed by the Supervisor prior to resuming work.
    - I. A sign-in sheet will document attendance.
    - II. Copies of the Safety Bulletin will be available for review during the meeting.
    - III. An opportunity for questions/answers/suggestions will be provided.
    - IV. Field Managers will discuss how a similar incident can be prevented on their project.
    - V. Field Managers will maintain a file of Safety Bulletins on the jobsite which will be available for review by employees, OSHA, and client/customer interested parties.
3. Program shall be reviewed at least once yearly.

### TRAINING

1. Training shall occur upon hire and refresher at least once a year.

### RECORDKEEPING

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

### FORMS

#### 4.2.1 Safety Bulletin





## Wilkinson Electric Safety Bulletin

**Date of Event:**

**What Occurred:**

**Results:**

**Possible Cause(s):**

**Corrective/Control Measures:**



## Return to Work Program Modified Duty or Light Duty Assignment

### PROGRAM STATEMENT

Wilkinson Electric return to work program is only for employees who have suffered a work-related injury or illness that temporarily prevents them from performing the essential functions of their job even with reasonable accommodation. Where possible, the Wilkinson Electric Division will provide such employees temporary modified duty or light duty work as specified in the Wilkinson Electric "Return-To-Work Program." This program facilitates and supports an employee's physical rehabilitation by providing temporary modified duty or light duty work assignments within the limits or restrictions imposed by the treating physician.

The "Return-To-Work Program" provides modified duty or light duty assignment for a maximum period of one-hundred eighty (180) calendar days. Employees who are unable to return to full duty without restrictions within one-hundred eighty (180) calendar days of beginning modified duty or light duty assignment shall be placed on leave of absence in accordance with the Wilkinson Electric Occupational Injury Leave of Absence Program.

This Program is not intended to direct policies applicable to employees who are eligible for reasonable accommodation under the Americans with Disabilities Act (ADA) or leave under the Family and Medical Leave Act (FMLA). Inquiries regarding ADA or FMLA must be directed to Wilkinson Electric Human Resources.

### DEFINITIONS

1. Full Duty: Full duty is the performance of all duties and requirements without restriction for which the employee is employed. Release to full duty indicates the employee is capable of performing all essential and non-essential functions of the employee's hired position.
2. Modified Duty: Modified duty is the performance of all essential functions of the pre-injury position with modifications to schedule or method of performance. The employee may perform only a portion of the assigned duties that are within the employee's current capabilities as outlined by the treating physician. Modified duty may include varying the hours of work, using mechanical means to assist performance, or using other employees to assist with job performance.
3. Light Duty: Light duty is the performance of all essentials functions of a job or position other than that for which the person was hired. Light duty allows an employee to perform other duties and tasks that are permissible given medical limitations.

### RESPONSIBILITIES

1. Employee
  - A. Shall adhere to program requirements
  - B. Maintain communication regarding health-related progress and provide physician notes and updates as needed until released to full duty
2. Supervisor
  - A. Shall decide on eligibility on a case-by-case basis
3. Safety
  - A. Shall obtain Physicians Statement and notify HR and Claims Manager of modified duty.

### PROGRAM REQUIREMENTS

1. Eligibility
  - A. The following employees are eligible to participate in the Wilkinson Electric "Return-To-Work Program:"
    - I. Employees who suffer a work-related injury or illness in the course and scope of their employment and are unable to return to work at full duty; and
    - II. The attending physician states the employee's participation in temporary modified duty or light duty assignment may facilitate his or her return to full duty within 180 calendar days of beginning such an assignment.
  - B. Employees who suffer a work-related injury or illness and do not meet the eligibility requirements to participate in the Wilkinson Electric "Return-To-Work Program" shall be placed on leave of absence in accordance with the Wilkinson Electric Occupational Injury Leave of Absence Program.
  - C. Employees who suffer non-work-related injuries or illnesses are not eligible to participate in the Wilkinson Electric "Return-To-Work Program."

2. When an employee sustains a work-related injury requiring medical attention it is imperative for the supervisor to immediately report the incident to Safety Management who is responsible for ensuring the following steps are completed:
  - A. Step – 1  
Upon notification from supervisor that an accident has occurred, the Safety Management confirms which treatment facility the employee should be/is being transported to (Program may vary in the case of an emergency), confirms post-accident drug-screen to be completed, and when treatment facility is within 60 miles of Safety Management meets injured employee there. If treating facility is not administering the drug-screen, Safety Management arranges for Wilkinson Electric directed drug screen and notifies HR to provide drug-screen results to the Safety Management upon receipt.
  - B. Step – 2  
Safety Management (or his/her designated representative) completes the pertinent information on the "Physician's Statement" (Attachment 1) and delivers it to the treating physician by or before the arrival of the injured employee either via fax, email, or in person. The "Physician's Statement" is not required if the Safety Management has established a working relationship with the facility and they are aware of Wilkinson Electric Program and have agreed to work with us.
  - C. Step – 3  
Physician completes appropriate section of the "Physician's Statement" stating the restrictions applicable to the injured employee and returns it to Safety Management via fax, email or in person. Safety Management notifies the injured employee not to return to work until Safety Management authorizes him/her to do so. The "Physician's Statement" is not required if the Safety Management has an established relationship with the medical facility and they provide a work status that clearly states the employee restrictions and the facility's information.
  - D. Step – 4  
Safety Management ensures timely receipt of completed "Physician's Statement" or equivalent prior to notifying injured employee if/when to return to work. Upon receipt, reviews with respective Division Manager to determine if injured employee is to be placed on leave of absence or can be accommodated under modified duty or light duty assignment per treating physician's statement. If accommodation cannot be made, move to Step 10, before proceeding to Step 5.
  - E. Step – 5  
When injured employee is to be placed on leave of absence because we cannot accommodate restrictions, the Safety Management works with the Division HR to notify injured employee via telephone. HR notifies payroll of LWOP commencement date and sends injured employee Leave of Absence Without Pay Letter and assumes responsibility for obtaining continued attending physician certifications of inability to work or return to work without restrictions certification\* up to maximum leave without pay periods under Wilkinson Electric Program. \*Upon receipt of this certification, HR notifies the Safety Management, the Safety Management notifies the Wilkinson Electric Claims Manager.
  - F. Step – 6  
If injured employee is to be accommodated under modified duty or light duty, the Safety Management must first contact Wilkinson Electric Claims Manager, to confirm if the Bona Fide Offer of Modified Duty or Light Duty (Attachment 2) or State of Injury WC Mandated Form must be used and, if regular scheduled work time that is lost due to absences for scheduled doctor or therapy appointments is to be paid and noted as such on a Wilkinson Electric timesheet and reported to supervisor, or not paid but reported as such to WC Claims Adjuster through Wilkinson Electric Claims Manager. Once these actions confirmed, Safety Management proceeds to Step 7 below.
  - G. Step – 7  
The Safety Management will contact the injured employee (via in-person or telephone) and direct him/her to (1) a project for assignment under modified duty or (2) a facility office for assignment under light duty. Following the communication, the Safety Management completes the "Bona Fide Offer of Modified Duty or Light Duty" Form as determined within Step 6 above, sends a copy to the injured employee's home address via certified letter and retains signed receipt with copy of the form in the Safety File. An option is to have a manager witness the injured employee receiving modified work assignment and signing off on the form and the witness signs in the allotted space and placing the original in the safety file.
  - H. Step - 8  
At start of first day of re-assignment, the Safety Management reviews the "Offer of Modified Duty or Light Duty" form with employee, employee reads/signs it, copies given to employee, employee's immediate supervisor, division HR (HR checks status after 180 calendar days and issues Leave of Absence Notice if applicable) and the WC Claims Adjuster through Wilkinson Electric Claims Manager.
  - I. Step – 9

If an injured employee becomes unable to continue a modified duty or light duty accommodation per his/her attending physician certification, Safety Management contacts Wilkinson Electric Claims Manager (will notify the WC Claims Adjuster) and the respective division HR (will issue Leave of Absence Notice letter to employee).

J. Step – 10

When a modified or light duty position is stated as not available by the Wilkinson Electric location, the respective Division Manager and the Safety Management must contact the respective Division President and Wilkinson Electric Safety Department for final approval of non-accommodation. If non-accommodation is approved by the President and Wilkinson Electric Safety Department, the Safety Management will contact the WC Claims Adjuster through the Wilkinson Electric Claims Manager to advise that disability benefits need to be started.

3. Failure to Comply

- A. If an injured employee on modified duty or light duty fails to report to work as scheduled or takes leave without advance notice to supervisor for doctor or therapy appointments, the Safety Management must immediately contact the respective HR Manager and WC Claims Adjuster through the Wilkinson Electric Claims Manager to review the situation and confirm next steps to be taken, including up to commencing the process of preventing the payment of indemnity for lost wages or sending the employee an employment status change notice.
- B. When an injured employee has been assigned temporary modified duty or light duty, it does not warrant special treatment beyond the restrictions placed by his/her attending physician. All employees, including those on modified duty or light duty assignments, are required to comply with all Division and Wilkinson Electric policies including those pertaining to attendance and work assignments.

4. Follow-up Physician or Physical Therapy Appointments

- A. Unless specifically required by State worker's compensation laws as confirmed by the WC Claims Adjuster, employees will not be paid to attend follow-up physician and physical therapy appointments during scheduled work hours. Injured employees should schedule such appointments prior to or after scheduled work hours whenever possible.
- B. Injured employees may be eligible for reimbursement of mileage to attend related injury physician or therapy office appointments, however is contingent upon governing state WC Regulations. To apply for reimbursement the injured employee must submit all requests for reimbursement directly with the WC Claims Adjuster.

5. Program review shall be reviewed at least once yearly.

**TRAINING**

- 1. Shall occur as needed.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 4.3.1 Wilkinson Electric Physician's Statement – Notice of Work Restrictions Fax Form
- 4.3.2 Wilkinson Electric Offer of Modified Duty or Light Duty Letter (or see State WC Mandated Form)



**\*\*\* PHYSICIAN'S STATEMENT \*\*\***  
**NOTICE OF WORK RESTRICTIONS**

Wilkinson Electric Office  
Location \_\_\_\_\_

DATE SENT: \_\_\_\_\_

PHYSICIAN: \_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

RE:           EMPLOYEE \_\_\_\_\_

                  DOB/SSN       \_\_\_\_\_

                  POSITION:   \_\_\_\_\_

                  EXAM DATE   \_\_\_\_\_

Dear Attending Physician:

Wilkinson Electric strives to assist our employees in a prompt return to work after a work-related accident. If you find our employee is unable to return to work in his or her regular job capacity, please outline his/her physical restrictions below and return this form to our Safety representative via the email address or fax number noted below as soon as possible so we might identify alternative employment opportunities while our employee recovers.

Sincerely,

*(Wilkinson Electric Safety/HR Representative Name)*

\_\_\_\_\_  
Email

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Fax

\*\*\*\*\* PHYSICIAN'S STATEMENT \*\*\*\*\*

**Employees' restrictions:**

Stand \_\_\_\_\_ Bend/Twist \_\_\_\_\_

Pull/Lift \_\_\_\_\_ Climb \_\_\_\_\_

Sitting \_\_\_\_\_

Other \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Next Office Visit: \_\_\_\_\_

Attending Physician's Signature/Date: \_\_\_\_\_





## Offer of Modified Duty or Light Duty

Wilkinson Electric  
Division Location \_\_\_\_\_

To: \_\_\_\_\_ Employee # \_\_\_\_\_

Date \_\_\_\_\_

Effective this date above, Wilkinson Electric is able to provide you the following offer of (*circle one*) **modified duty** or **light duty** on a temporary basis **up to 180 calendar days** from the date of this notice, to be reviewed every **30 days** to determine continued business necessity. Work schedule is subject to change. If you are unable to return to full duty without restrictions within **180 calendar days** of beginning this duty assignment, you will be placed on a leave of absence in accordance with Wilkinson Electric Return to Work Program. Your rate of pay will remain at your hourly rate of pay as before your date of injury on \_\_\_\_\_:

Duty Assignment: \_\_\_\_\_

Department: \_\_\_\_\_

Physical Location: \_\_\_\_\_

Reports to Supervisor: \_\_\_\_\_

Report Date: \_\_\_\_\_

Work Schedule: \_\_\_\_\_ a.m. to \_\_\_\_\_ p.m. on Week Days \_\_\_\_\_ to \_\_\_\_\_

The above duty assignment provides for the following attending physician restrictions:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please acknowledge with your signature below that you have read and understand the above, will follow the above assignment and, that you will provide Safety Manager \_\_\_\_\_ with all updates on your medical status including scheduled physician or therapy appointments and related written documentation within 24 hours of your receipt, so that we may update your duty assignment as necessary.

Because your attending physician has indicated you are able to work with the above restrictions, you are expected to continue to comply with all Wilkinson Electric policies including attendance and work assignment policies. If you are unable to report to work as assigned above, you must provide advance notice, when possible, to your Safety Manager via phone/mobile# \_\_\_\_\_ and your reports to supervisor before your work schedule start time.

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date of Review

\_\_\_\_\_  
Wilkinson Electric Safety or HR Manager Signature

\_\_\_\_\_  
Date of Review

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Date of Review



## Incident Review Committee

### PROGRAM STATEMENT

This Incident Review Committee program was established to strengthen the integrity of our recordkeeping system by creating a process to accurately identify which reported incidents meet the OSHA recordable criteria.

### DEFINITIONS

See 4.1 Incidents, Reports and Investigations for OSHA Recordkeeping and incident classification

### RESPONSIBILITIES

1. Safety Management
  - A. Complete Incident Review Committee Report
  - B. Send completed report to Incident Review Committee for Review
2. Incident Review Committee Members
  - A. Respond to email regarding recordability of incident
  - B. Provide input and reasoning if the incident does not meet their interpretation of recordability

### PROGRAM REQUIREMENTS

The Incident Review Committee has been established to oversee the process and integrity of determining the OSHA recordability of workplace incidents that occur within Wilkinson Electric locations, projects and worksites.

- A. When an incident is reported, the Safety Department initiates an incident investigation
- B. If the injury, without question, meets the criteria for being an OSHA recordable incident (i.e. sutures, fracture, prescription, lost/restricted time, etc.) the Safety Management completes the Incident Review Committee Report and emails it to the committee members who will respond via email of their decision. Upon receipt of the reports from the committee members, there are questions noted, the Safety Management will schedule a call to discuss and answer questions or concerns.
- C. All other incidents require the Safety Management to schedule a review call with the Incident Review Committee as soon as possible after the completion of the incident investigation.
- D. The call requires a quorum of the Incident Review Committee. After the conclusion of the call, Safety Management Personnel should send the results of the call to the members that were not present so they can reply. Their email response should be kept in the incident files.
- E. If for some reason there is not a quorum of the committee on the call, the Safety Management emails each committee member the completed Incident Review Committee Report.
  - I. Each committee member will respond with their decision via email.
  - II. The responses should be kept with the incident files.
- F. Prior to each call, the Safety Management emails the completed Incident Review Committee Report to the committee members.
- G. On the call, the Safety Management and the General Manager reviews with the committee the incident and their recommendations whether the incident is an OSHA recordable or not.
  - I. An explanation citing the 1904 standards and/or any letter of interpretation (LOI) or OSHA rulings should be included to support their recommended decision.
- H. The committee makes the final determination if the incident meets the criteria of being an OSHA recordable or not.
- I. The Safety Managements should take the notes and decisions from the committee meeting and file them with the incident report in the event of a future recordkeeping audit.
- J. The Safety Management generates a safety bulletin draft utilizing the Wilkinson Electric Safety Bulletin template and submits to the Wilkinson Electric Senior VP, Safety.

1. Incident Review Committee Members
  - A. Currently these members are:
    - Southern VP
    - Northern VP
    - Safety Manager
    - HR Director
2. Program review shall be performed at least once a year

**TRAINING**

1. Shall be provided once assigned to the Incident Review Committee

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 4.4.1 Incident Review Committee Report

## Incident Review Committee Report

Employee Name: \_\_\_\_\_ Job Title: \_\_\_\_\_  
 Wilkinson Electric  
 Location: \_\_\_\_\_ Project Name: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_ Supervisor: \_\_\_\_\_  
 General Manager: \_\_\_\_\_ Incident Date: \_\_\_\_\_  
 Date of Hire: \_\_\_\_\_ Date Reported: \_\_\_\_\_

Description of Incident and any Medical Treatment Rendered:

Do you feel this is an OSHA recordable incident? YES \_\_\_\_\_ NO \_\_\_\_\_

Explain: Include the 1904 standard and interpretation letters pertinent to your decision:

Committee Members participating in this decision:	<u>Attended Call/Email</u>	<u>Recordable</u>
Southern VP	Yes _____ No _____	Yes _____ No _____
Northern VP	Yes _____ No _____	Yes _____ No _____
Safety Manager	Yes _____ No _____	Yes _____ No _____
HR Manager	Yes _____ No _____	Yes _____ No _____

**Incident Review Committee Decision:**  
 \_\_\_\_\_ NO, this incident should not be an OSHA recordable  
 \_\_\_\_\_ YES, this incident should be an OSHA recordable

Submitted by: \_\_\_\_\_

\_\_\_\_\_  
 Signature Date

cc: Wilkinson Electric President



## Electrical Safety Program

### PROGRAM STATEMENT

Wilkinson Electric is committed to providing a safe and healthy place of employment for each of its employees. In providing a safe workplace, Wilkinson Electric will comply with the Occupational Safety and Health Administration and provide training to employees who may be exposed to electrical hazards associated with the type of work they perform. All employees shall be protected from electrical shock and potential arc flash hazards. For energized electrical work requirements refer to Wilkinson Electric 5.3 Energized Electrical Work Program - Construction 600 volts/3 phase or less or 5.4 Energized Electrical Work Program, 250 volts/single-phase or less.

### DEFINITIONS

1. Authorized Employee: An employee who has been trained to perform work on affected equipment.
2. Current - (measured in amps/amperage) used to describe electric flow. It is current that can cause electric shock.
3. Designated electrical stand-by person: An employee trained in energized electrical procedures and emergency rescue response for electrical shock victims. Be certified in CPR and first aid. This person will assist the qualified electrical worker but will not directly perform energized work activities.
4. Energized Electrical Work (EEW) or Energized Electrical Work Permit (EEWP)
5. GFCI – Ground Fault Circuit Interrupter, provides additional protection from shocks by shutting off current to equipment when a change in electricity is sensed.
6. Grounding - Provides a safe path between electricity and the earth, preventing leakage of current. The creation of a conductive path for electricity between a circuit or the equipment to ground.
7. High Voltage – Electrical systems or equipment operating at or intended to operate at a sustained voltage of more than 600 volts.
8. Low voltage - Electrical systems or equipment operating at or intended to operate at a sustained voltage of 600 volts or less.
9. Qualified Electrical Worker: An employee who by virtue of experience and training, can safely work on energized electrical systems at greater than 50 volts. This person must have sufficient understanding of electrical devices and facilities to be able to positively identify and control all hazards that may be present. The qualified employee shall be trained in accordance with the Wilkinson Electric EEW Program.
10. Resistance - The ease with which electricity flows through the material (conductor). Materials (conductors) with higher resistance properties can become hot. (Measured in ohms)
11. Voltage - Electric potential or potential difference assigned to a circuit or system expressed in volts.

### RESPONSIBILITIES

1. Employee
  - A. Shall be trained prior to performing any work
  - B. Shall inspect PPE prior to use each day
  - C. Shall adhere to all program requirements
  - D. Shall use STOP WORK AUTHORITY
2. Supervisor / Competent Person
  - A. Shall adhere to all program requirements
  - B. Shall coordinate with Safety on scheduling job hazard analysis prior to starting a new project
  - C. Shall coordinate with Safety to perform inspection in accordance with this program and maintain documentation
  - D. Ensure project is equipped with appropriate Tools and PPE
  - E. Shall inform Safety if assured grounding program or energized electrical work may be considered for the project and request training
3. Safety
  - A. Shall provide training in accordance with Wilkinson Electric Electrical Safety Training Requirements
  - B. Shall accompany Supervisor or Competent Person during JHA and/or Inspections

**PROGRAM REQUIREMENTS**

1. Safe Work Practices
  - A. All installations must comply with the current National Electrical Code, all federal, state and local codes and standards.
  - B. Through the use of a UL listed voltage tester, it is the personal responsibility of each employee to be certain electrical equipment and electrical circuits are de-energized prior to performing any work assignment.
  - C. Equipment and circuits found to be energized shall be de-energized and electrically disabled in compliance with the lockout/tagout program and tested with a voltage meter that has been verified to be operable prior to performing the work.
    - I. If a circuit or equipment cannot be de-energized, refer to Wilkinson Electric 5.3 or 5.4 Energized Electrical Work Program
    - II. Strict adherence to the EEW Program and work performed must be in full compliance with the appropriate section of the Wilkinson Electric Safety Program.
  - D. Never assume that electrical insulation is intact. Take the necessary precautions prior to contacting insulated conductors.
  - E. Never reach into electrical cabinets or enclosed areas without identifying the potential hazards first.
  - F. Keep the work area clear of non-essential tools and equipment.
  - G. Handle conductive objects carefully when in the area of electrical equipment.
  - H. Secure all open electrical cabinet doors to prevent them from closing accidentally.
  - I. Extension Cords
    - I. All extension cords must be three-wire conductor of the heavy-duty type.
    - II. Flat cords are not permitted.
    - III. Unplug extension cords before rolling them up
    - IV. All extension cords must be inspected before use.
      - 1) Damaged cords must be removed from the work and tagged with a "Do Not Use" tag until repairs are completed by a competent person.
      - 2) Arrange extension cords as to avoid sharp corners, pinching, and being run over.
  - J. Temporary Panels
    - I. All energized temporary panels, disconnecting means, circuits, and overcurrent protection devices shall be labeled to indicate purpose
    - II. All temporary panels shall be locked at all times and controlled access shall be restricted to qualified Wilkinson Electric employees only
  - K. Temporary Lighting
    - I. All temporary light wiring must be supported by non-conductive means, in accordance with the manufacturer's recommendation and 8 feet off the floor.
    - II. All light bulbs used in temporary lighting must be guarded.
  - L. Use Ground Fault Circuit Interrupters (GFCI) on all 120-volt construction temporary power.
    - I. A monthly test and inspection is required for all (GFCI) power and devices and the test and inspection must be documented.
  - M. No jewelry is allowed. The only exception is a medical alert bracelet or necklace but they must be insulated from all conductive objects.
  - N. Make sure work areas are well lit.
2. Assured Protection
  - A. Wilkinson Electric will use ground fault interrupters for all 120-volt, single phase, 15, 20 and 30-amp receptacle outlets on construction sites, which are not part of the permanent wiring of the building or structure and are in use by employees will have approved ground fault circuit interrupters for personal protection.
  - B. Receptacles on two-wire, single phase portable or vehicle mounted generators rated not more than 5kw, where the circuit conductors of the generator are insulated from the generator frame and all other ground surfaces, need not be protected with ground fault circuit interrupters.
  - C. Any job site that requires assured grounding must contact the Safety Manager to review and receive training on the requirements of the Assured Grounding Program.
3. Assured Grounding Program
  - A. This following procedure has been developed **in the event** an Assured Grounding program is required. As part of this program, all hand and power tools and similar equipment, whether furnished by Wilkinson Electric or the employee, will be maintained in a safe manner.
  - B. Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug except cord sets and receptacles that are part of fixed equipment and not exposed to damage,



will be inspected before each use daily for external damage, and for indications of possible internal damage.

- C. Equipment found damaged or defective will be removed from service immediately.
- D. The following tests shall be performed on all receptacles, cords, and cables other than 125-volt, single phase, 15, 20 and 30-amp of which are not part of the permanent wiring of buildings or structures, and all cord and plug connected equipment required to be grounded:
  - I. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
  - II. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductors. The equipment grounding conductor shall be connected to its proper terminal.
- E. All required tests shall be performed:
  - I. Before each use.
  - II. Before equipment is returned to service following any repairs.
  - III. Prior to equipment use and after any incident which could cause damage.
  - IV. Intervals not exceeding one month.
- F. Tests performed as required shall be recorded on the record of inspection form.
  - I. The test performed shall clearly identify each receptacle, cord set, cord and plug connected equipment that passed the test shall the last date tested.
  - II. Records shall be maintained on the jobsite for review as required.
  - III. If needed the attached letter indicating the date the test was conducted will be provided to the General Contractor.
  - IV. Where a general contractor has requested, or Wilkinson Electric is under contract to inspect other subcontractor's flexible cords, cord and plug connected tools the attached letter will be provided indicating the date which the tests were conducted and the results.
  - V. Under no circumstances will Wilkinson Electric assume responsibility or repair a subcontractor's flexible cords, cord, plug connected tools, or power tools.
- G. The assured grounding program will be handled on a job-by-job basis and only as needed. If required, the Jobsite Supervisor will be responsible for the implementation of this program, including all record keeping and testing.
  - I. The Jobsite Supervisor is responsible to schedule training with Safety Personnel as to the requirements.
  - II. When equipment requiring assured grounding is received on the jobsite, it shall be numbered, tested and recorded prior to being placed in service and in interval not to exceed one month.
  - III. The assured grounding program will be required on all projects with or without ground fault protection for all systems other than 125-volt, 15, 20, and 30 amperes.
- H. Cord sets shall be tested with a voltage tester or 3-wire plug in type outlet tester.
  - I. All cord sets shall be tested for proper polarity and continuity of grounding conductor.
  - II. Grounding type light-stands and power tools shall be tested with an ohmmeter for continuity of grounding conductor between the ground pin of the attachment plug of the attachment plug and the metal case of the light fixture or tool.
- I. Cord sets including droplight and grounding type stands shall be identified by a numbered band of tape followed by a colored band of tape designating the month of test.
  - I. Cord sets and droplights shall be marked at each end. Light stands shall be marked at the end of the plug end only.
  - II. ID number engraved on the tool shall identify grounding type power tools.
  - III. A color band of tape shall be placed next to the plug end to designate the month of the test.
  - IV. Cord sets, droplights and light stand ID numbers may be changed from job to job to avoid duplication of numbers.
  - V. Tool numbers are not to be changed.

#### 4. Electrical Inspection

- A. All energized permanent electrical equipment, breakers, panels, disconnecting means, circuits and overcurrent protections devices shall be identified and legibly labeled or have a temporary panel schedule in place to indicate its purpose.
- B. All energized temporary panels, disconnecting means, circuits and overcurrent protections devices shall be identified and legibly labeled to indicate its purpose
  - I. All temporary labels and panel schedules shall remain in place until replaced with the permanent labels or panel schedules.
  - II. If for any reason the panel scheduled is removed the panel shall be immediately de-energized and the main breaker locked and tagged in compliance with the Wilkinson Electric LOTO program.

- III. Temporary power panels and lighting circuits must be inspected by project supervision after installation and weekly thereafter to make sure the cover plate is secure, the box is in good condition (no cracks, exposed wires, and has sound inside connections).
  - IV. Use a receptacle tester to ensure proper wiring.
  - V. Temporary electrical panels shall be locked at all times with controlled access limited to only qualified Wilkinson Electric employees.
  - C. Insure all equipment and power cords are unplugged before inspection.
    - I. Check male and female ends for secure connections and exposed wires
    - II. Check the entire length of cord for breaks in insulation.
  - I. Use a multi-meter to make sure you have a good ground from machine to ground prong and that the other wires are electrically continuous making no contact with any metal parts exposed to personnel.
  - J. All hard-wired equipment must be inspected on installation and periodically thereafter.
  - J. All wire and conduit connections must be inspected to ensure secure, proper connection.
  - K. If the equipment is found to be unsatisfactory, then red tag it for necessary repairs.
  - L. All equipment lost, or damaged beyond repair must be noted and the proper authority notified immediately.
  - M. Use of test equipment and performance of required electrical inspections is restricted to designated qualified persons.
5. Welding Machines  
This section is applicable only when Wilkinson Electric has welding machines onsite.
- A. Due to their heavy use and high hazard potential, all portable welding machines must be properly grounded to frame.
  - B. An external ground wire is available when using the 110vac outlet on portable welding machines.
  - C. The electrode holder must be in safe condition.
  - D. Cables and connectors must be in safe condition.
  - E. Connection posts are tight and in good shape.
6. Electrical Testing Equipment
- A. Test equipment must be evaluated for proper operation and correct voltage and current applications immediately before and after the test.
  - B. Test instruments, equipment and all associated leads, cables, power cords, probes, connectors, etc. must be visually inspected for external defects and damage before the equipment is used.
    - I. If there is a defect or evidence of damage that could expose someone to injury, the defective or damaged item must be removed from service.
    - II. It may not be used again until repairs and tests are preformed to assure the equipment is safe to use and has been properly repaired.
  - C. Voltmeters must be maintained in a good working condition.
    - I. Any equipment that is or is suspected to be defective shall be tagged out and removed from service until proper repairs are made and tests verify that the equipment is accurate and safe to use.
7. Inspection of Protective Equipment
- A. All personal protective equipment required by the electrical safety protocols, including gloves, mats, boots, clothing, face-shields, hoods, etc. must be inspected and maintained in compliance with the manufacturer's guidelines.
  - B. Any defective personal protective equipment must be red danger tagged and returned to the Safety Manager.
  - C. All inspections, repairs and tests done on protective equipment must be documented and coordinated by the Safety Manager.
  - D. Rubber Insulating Gloves must be electrically tested by an approved outside testing facility at intervals not to exceed six (6) months. Leather protectors should always be used over rubber insulating gloves to provide mechanical protection.
  - E. Rubber insulating gloves must be inspected inside and outside.
    - I. Start with the outside surface area by gently squeezing together the inside surface area of the glove to bend the outside surface areas and create sufficient stress to highlight cracks, cuts, or other irregularities.
    - II. Turn the glove inside out and repeat the process. Gloves must be given an air test before each use. Rolling the cuff toward the palm in such a manner that air is trapped inside the glove to perform the test.
    - III. Once this is accomplished, look, listen, and feel for air leaks.
    - IV. If no leaks are detected the glove is safe. No part of the glove is to be stretched more than 1.25 times its normal size.

- F. Rubber insulating blankets must be electrically tested by an approved outside testing facility at intervals not to exceed 12 months.
  - I. Before each use, employee must visually inspect rubber-insulating blankets, and anytime there is reason to suspect damage.
  - II. Inspect on both sides over the entire blanket surface for defects and embedded materials.
  - III. In order to locate defects such as swelling, scratches, tears, abrasions, snags, corona cutting or age-cracking, the blankets should be rolled two times on each side, with the second roll at a right angle to the first.
  - IV. Blankets with any defects must be removed from service.
  - V. Rubber insulating blankets must be visually inspected in the field by the Competent Person to determine that such equipment is being maintained in a satisfactory condition by the users.
- 8. Storage
  - A. Any room or designated area that contains energized electrical equipment shall not be used as a storage area.
  - B. The dedicated working space around energized electrical equipment as required by the OSHA 29 CFR 1926.403(i)(1)(i) standards shall be maintained when electrical power is present.
  - C. Testing Equipment
    - I. All electrical test equipment must be stored in a clean dry location, kept clean and in good operating condition.
    - II. Voltage tester leads shall be kept in a separate pouch (other than tool pouch), to prevent damage by other objects.
  - D. Person Protection Equipment
    - I. Rubber insulating gloves must be stored in a manner to prevent physical damage.
      - 1) Do not store them folded, creased, or compressed.
      - 2) The storage location should be free from chemicals, solvents, sunlight, heat, moisture, ozone, or any objects that could cause damage.
      - 3) Rubber insulating gloves must be kept and carried in a box, bag, or other container intended exclusively for this purpose.
      - 4) These containers must be kept free of chemicals, dirt, or any other material that could harm the gloves or protectors.
    - II. Rubber insulating blankets must be stored in a cool, dark, dry location that is free of chemicals, solvents, ozone, vapors, fumes, electrical discharges and sunlight.
      - 1) They are to be stored in a container, bag, box, or compartment designed for and used exclusively for this purpose.
      - 2) They must not be stored folded, creased or compressed in any manner that could cause stretching compression, or abrasion.
- 9. Testing Temporary Power GFCI System
  - A. It is the responsibility of the Supervisor to assure that monthly, each temporary power GFCI breaker and/or receptacle is tested to confirm their protective operation and documented.
    - I. Visually check for damage to the breaker and/or receptacles. If damage has occurred, repair immediately.
    - II. Confirm the circuit number is indicated at each receptacle being used for temporary electric power and the directory is current and legible.
    - III. Push the "test" button located on the GFCI breaker and/or receptacle. If the breaker and/or protective receptacles do not trip, repair immediately, then retest.
  - B. Testing of the protective devices must be documented.
    - I. Enter each temporary power panel, with GFCI receptacles attached to it, on the GFCI Test Report.
    - II. The same report can be used for multiple inspections.
    - III. For each inspection initial and date by each panel, confirming testing of all GFCI protective devices was performed. If any protective devices fail, repair immediately, retest, then sign off that all protective devices were tested and they all functioned normally.
    - IV. When the log is full start a new log for each panel and place the completed log in the project safety file.
  - C. Inspection of the temporary includes the distribution equipment not just the GFCI devices.
    - I. A complete visual inspection must be made weekly by the supervisor or designated safety captain.
    - II. Look for missing breaker blanks, uncovered holes in panels and enclosures, any physical damage to panels / wiring and the panel directory is current to date and is legible.
  - D. Damaged temporary power wiring and equipment and any other deficiencies must be repaired immediately.

10. Temporary Feeder and Branch Circuit
  - A. All temporary feeder and branch circuits shall be run as a multiconductor cord or in a raceway and not subject to physical damage.
  - B. If a feeder circuit drops from overhead to a panel the drop shall be a hard usage cord i.e. SO cord or equivalent or in a raceway.
  - C. If Romex or NM cable is utilized for the temporary electric circuit a j-box must be mounted in the ceiling at least 8' from the floor and the circuit converted to raceway or SO cord or equivalent hard usage cable using strain relief connectors.
  - D. Feeder circuits installed underground shall be in a raceway from where it comes through the slab to the panel it feeds.
  - E. At no time is Romex or NM cable allowed to be positioned on the floor, in a pinch point or to be unprotected from physical damage.
11. Program Review shall be performed at least once a year with related incidents to ensure program effectiveness and continuity with all State and Federal Regulatory Programs.

**TRAINING**

1. No person shall install or maintain electrical equipment unless that person has been properly trained, or is closely supervised by a Qualified Person.
2. Each employee will be trained to visually check daily for external damage or defects with each piece of electrical equipment before it is used.
3. Re-training is required if a lack of proficiency is observed or when an employee demonstrates they do not understand proper procedures.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 5.1.1 Notice Temporary to Permanent Power
- 5.1.2 Temporary Power GFCI Test Report
- 5.1.3 Assured Grounding Log
- 5.1.4 Notice Transfer of Temporary Power
- 5.3.1 Employee Notification EEW Compliance Statement

## Notice of Transfer of Temporary to Permanent Power

To: \_\_\_\_\_ Date: \_\_\_\_\_

From: \_\_\_\_\_  
\_\_\_\_\_

On \_\_\_\_\_, 20\_\_\_\_, Wilkinson Electric will complete the transfer of all temporary power on the \_\_\_\_\_ to the permanent power system. While Wilkinson Electric has ensured all electrical safeguards have been put in place prior to this transfer, Wilkinson Electric wants to make sure that you are made aware of what the electrical safety requirements are and how they will continue to affect employee safety. The following are requirements of OSHA and should be strictly enforced and complied with by all contractors, subcontractors and their employees on this site.

1. Make sure all flexible cords, electrical devices, switches, receptacles, panels, junction boxes are equipped with covers and that only qualified electricians remove such covers for maintenance or service.
2. Make sure that electric equipment used on site is listed or labeled by an agency or testing laboratory acceptable to OSHA (NIOSH, MSHA, NEC, UL, CSA).
3. Use electric equipment in accordance with the manufacturer's specifications.
4. Ensure all non-double insulated electric equipment is equipped with a ground conductor.
5. Ensure the equipment grounding conductor is in good operable condition.
6. Provide GFCI (ground fault circuit interrupter) or assured grounding program is in place to protect employees from ground faults.
7. Use only three wire extension cord sets, which provide an equipment-ground conductor.
8. Use flexible cords and cables are marked with one of the following types: S, SC, SCE, SCT, SE, SEO, SEOO, SJ, SJE, SJEO, SJEOO, SJO, SJT, SJTO, SJTOO, SO, SOO, ST, STO, STOO, G, PPE, or W.
9. Provide strain relief where flexible cords are connected to devices and fittings to prevent pull from being applied directly to joints or terminal screws.
10. Determine, by direct observation, by inquiry, or by the use of instruments, whether energized electric circuits are present in a work area and where employees may have exposure.
11. De-energize and ground all circuits or guard them or use insulation to protect qualified employees prior to working on energized equipment. See Wilkinson Electric Energized Electrical Work Policy.









# Assured Grounding Log

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

Project Location: \_\_\_\_\_

Description &/or ID #	1 <sup>ST</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter

## Assured Grounding Color Code

Quarter	Months	Color
1 <sup>st</sup> Quarter	January, February, March	White
2 <sup>nd</sup> Quarter	April, May, June	Green
3 <sup>rd</sup> Quarter	July, August, September	Red
4 <sup>th</sup> Quarter	October, November, December	Orange



## Lockout Tagout Program

### PROGRAM STATEMENT

All Employees who may be exposed to energized or potentially energized equipment intentionally or accidentally must be properly protected from the energized circuit, equipment and parts or the unexpected start-up of that equipment. Energy sources include electrical, mechanical, hydraulic, pneumatic, and other power sources. Wilkinson Electric has **ZERO TOLERANCE** for the violation of this lockout tagout program.

### DEFINITIONS

1. Affected Employee: An employee whose job requires them to operate or use equipment under lockout/tag out, or whose job requires them to work in an area where lockout/tag out is being performed.
2. Authorized Employee: An employee who has received proper and documented training in this lockout tagout procedure on the affected equipment.
3. De-energized – Electrical devices that are disconnected from all energy sources including direct electric connections, stored electric energy such as capacitors, and stored non-electrical energy in devices that could re-energize electric circuit parts
4. Capable of being locked out: An energy-isolating device is considered capable of being locked out if it:
  - A. Is designed with a hasp or other means of attachment to which a lock can be affixed.
  - B. Has a built-in locking mechanism?
  - C. Can be locked without dismantling, rebuilding, or replacing the energy-isolating device or permanently altering its energy control capability.
5. Energized: Machines and equipment are energized when they are connected to an energy source or they contain residual or stored energy.
6. Energy-isolating device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
7. Energy source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
8. Lockout: The placement of a lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
9. Lockout device: Any device that uses positive means, such as a lock, blank flanges and bolted slip blinds, to hold an energy-isolating device in a safe position, thereby preventing the energizing of machinery or equipment.
10. Normal production operations: Utilization of a machine or equipment to perform its intended production function.
11. Servicing and/or maintenance: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing machines or equipment, including lubrication, cleaning or unjamming of machines or equipment, and adjusting or tool changes, where employees could be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.
12. Tagout: The placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.
13. Tagout device: Any prominent warning device, such as a tag and a means of attachment, that can be securely fastened to an energy-isolating device to indicate that the machine or equipment to which it is attached may not be operated until the tagout device is removed.
14. Electrically Safe Work Condition: A state in which an electrical conductor or circuit part has been disconnected from energized parts, locked/tagged in accordance with Wilkinson Electric LOTO Program and verified to ensure the absence of voltage and grounded if determined necessary
15. Energized: Electrically connected to, or is, a source of voltage

16. Testing Instrument: An adequately rated voltage test instrument that has the capability to test each phase conductor or circuit part to verify it is de-energized and each phase conductor or circuit part both phase-to-phase and phase-to-ground. *Proximity detectors (non-contact tester, tic-tester) shall not be permitted to be used in this procedure.*

**RESPONSIBILITIES**

1. Employee
  - A. Strictly adhere to the program requirements and comply with all State and Federal standards regarding electrical safety
  - B. Attend training and pass competency test
  - C. Use a voltage tester in accordance with this program
  - D. Wear appropriate PPE
  - E. Identify and Report all safety concerns
2. Authorized Employee
  - A. Only employee performing LOTO procedure
  - B. Shall be the only person with a key to the LOTO device
  - C. Shall be the only person removing the LOTO device
3. Supervisor
  - A. Maintain a safe work environment
  - B. Ensure employees are trained prior to performing work
  - C. Conduct hazard analysis and report findings
  - D. Correct identified safety hazards
  - E. Ensure all program requirements are met and in accordance with current State and Federal regulations
  - F. Ensure PPE is provided and meets the requirements based on the level of hazard
  - G. Shall assist in the identification of potential hazards, training of employees to perform proper lockout/tag out, supervise the locking out of equipment and the process to re-energize any electrical circuit, equipment or part
4. Safety Department
  - A. Provide assistance in recognizing electrical safety issues
  - B. Provide electrical safety training
  - C. Review electrical equipment safe operating procedures as necessary
  - D. Audit and evaluate equipment inspections

**PROGRAM REQUIREMENTS**

1. General Safety for all electrical systems and circuits rated at 600V or less.
  - A. Any work performed on or near energized circuits, or where workers can come in contact either deliberately or accidentally with an energized source or when working within the Limited Approach Boundary or Arc Flash Boundary of exposed energized electrical conductors or circuit parts that are not placed in an electrically safe work condition will comply with the procedures set forth in this program.
  - B. If the energized circuit, equipment or part cannot be properly de-energized, locked and tagged out and meets the definitions in NFPA 70E 130.2(A), the work must be performed in full compliance with the Wilkinson Electric Energized Electrical Work Program.
  - C. Circuits will be identified, de-energized, locked and tagged.
  - D. The authorized employee applying the lock will maintain the key in their possession.
  - E. Applying tape, tags without lockout devices and locks or simply tagging the switch, valve, etc. is prohibited.
  - F. All authorized employees performing lockout tagout shall:
    - I. Verify voltage test instrument is operational before and after each test on a known voltage source
    - II. Test each phase conductor or circuit part to verify it is de-energized.
    - III. Test each phase conductor or circuit part both phase-to-phase and phase-to-ground and document
    - IV. Use of a low-voltage proximity or non-contact voltage tester is prohibited
  - G. No employee is permitted to remove someone else's lockout device. (*Exception outlined within "Emergency Lock Removal Process"*)
  - H. It is the responsibility of the Supervisor to ensure that no work is performed on electrical related systems beyond the protection of the installed lockout device, lock and tag.
  - I. Multi-lock devices must be used if other employees or crafts are involved in the lockout
  - J. Every employee working on an electrical circuit, equipment or part that has been de-energized, locked and tagged shall have a lock and tag in place on the lockout device.
  - K. Proper lockout devices, locks and tags will be available when needed or required

- L. In every case the controlling switch, breaker or disconnect means shall be rendered inoperable, locked, properly tagged and tested with an approved voltage tester to verify no electrical voltage is present before any work is performed
2. Simple Lockout / Tagout
- A. All lockout/tagout procedures that involve only a qualified person(s) de-energizing one set of conductors or circuit part source for the sole purpose of safeguarding employees from exposure to electrical hazards. The following steps should be taken to implement a simple lockout / tagout procedure:
    - I. Preparation for Shutdown - Identify and verify all energy sources applicable.
      - 1) Notification of Personnel in area - Notify the Owner / General Contractor, other trades and all employees on the project that may be affected.
    - II. Machine or equipment shutdown - Turn "off" the equipment (removes and/or disconnects the energy source). Disconnecting the energy source may be considered Energized Work which can only be done by an authorized employee. Refer to the Wilkinson Electric Energized Electrical Work Program.
    - III. Machine or equipment isolation - Test the "on" switch/control, on the equipment, to confirm the energy source has been removed. Turn the switch back to "off".
    - IV. Installation of lockout device - Lockout/block-out the energy sources; using lockout devices, locks and appropriately completed tags.
    - V. Relieve stored energy - Ensure there is no stored power in a capacitor or transformer and all parts have stopped moving. Inspect and verify for the system in which you are working on (i.e., line, valves, pressure, bracing a re-accumulation).
    - VI. **Verification of isolation** - Test lockout devices to be sure re-energization is not possible. Using an adequately rated voltage testing instrument to test each phase conductor or circuit part to verify it is de-energized. Test each phase conductor or circuit part both phase-to-phase and phase-to-ground. Before and after each test, determine the voltage test instrument is operating satisfactorily through verification on a known voltage source. Use of a low voltage proximity or non-contact voltage tester is not permitted to test for the absence of voltage in this procedure. Test all control devices to assure the equipment will not operate.
  - B. PPE Required for Testing for the Absence of Voltage:
    - I. Until an electrical circuit or part(s) are verified and found absent of voltage, the circuits or part(s) must be presumed to be energized. (Refer to the Wilkinson Electric Energized Electrical Work Program)
    - II. Wear the appropriate PPE for the environment until it is proven de-energized.
3. The following steps should be taken to implement the **LOTO REMOVAL** procedure:
- A. Notify Affected Personnel - Provide a notice that repairs or service is complete, and equipment is ready for power restoration
  - B. Remove Lockout/Tagout Device
    - I. **Verify** the equipment is safe to operate
    - II. Safeguard all employees.
    - III. Ensure everyone is clear of the equipment.
    - IV. Remove the lockout/tagout devices by authorized employee who installed device
    - V. Restore energy
  - C. LOTO requires a system lock exceeding the work shift
    - I. Inspection must be performed after each break, lunch or start of shift to ensure LOTO devices and tags are still in place
    - II. **Verify** energy has not be restored to equipment
  - D. Failure to comply with the program requirements shall result in disciplinary actions up to dismissal
4. Alternative Energy Sources  
All valves, blinds, blocks, etc., locked-out to assure energy source isolation, must be verified by the authorized persons.
- A. Electrical
  - B. Hydraulic
  - C. Pneumatic
  - D. Mechanical
  - E. Gravity
  - F. Thermal
  - G. Chemical
  - H. Fluids & Gases
  - I. Pressurized Fluids & Gases

5. Complex Lockout/Tagout Procedure
  - A. A complex lockout/tagout plan will be required where one of more of the following exist:
    - I. Multiple energy sources
    - II. Multiple crews
    - III. Multiple crafts
    - IV. Multiple locations
    - V. Multiple employers
    - VI. Multiple disconnecting means
    - VII. Particular sequences
    - VIII. Job or task that continues for more than one work period
  - B. Contact Safety for all complex lockout/tagout procedures
  - C. A written plan of execution must be developed to comply with the requirements of NFPA 70E 120.2(D)(2).
  - D. Warning: Failure to Comply - Consequences
    - I. Any person who operates an energy source isolation device to which lock-out devices and tags are attached, or removes a lock-out device or tag without authorization will be subject to immediate dismissal
    - II. Any person who works on an energy source without following this procedure will be subject to immediate dismissal.
    - III. Only the authorized employee who installed the device is allowed remove the lockout device.
    - IV. **EXCEPTION** – When the employee who installed the device is not on the project:
      - 1) A reasonable attempt will be made to contact him/her.
      - 2) If no contact is made, the Supervisor accompanied by another Wilkinson Electric supervisor may remove the locking device only after the system has been
        - a) Thoroughly inspected,
        - b) The completed work verified, and
        - c) It is confirmed that no one is exposed to any hazard as a result of restoring the power source.
6. Control of Electrical Rooms
  - A. All electrical rooms where permanent power has been energized will be locked with only qualified individuals having access, marked with "Danger Electrical Voltage" signage or equivalent, which will not be removed until the room's final inspection and the following conditions are met. (See Section 5.2.3 Lockout Tagout – Control of Electrical Room Signage)
    - I. All electrical work is completed in the room.
    - II. All electrical work is completed which originates or is controlled in the room.
  - B. Electrical Room Signage will include the names and cell phone numbers of the following employees:
    - I. Wilkinson Electric Field Supervisor
    - II. Wilkinson Electric Crew Foreman
    - III. Wilkinson Electric On-Site Safety Coordinator
    - IV. Wilkinson Electric Project Manager
    - V. Wilkinson Electric Safety Manager
    - VI. Wilkinson Electric Authorized Employees
  - C. If another trade or an unauthorized employee requires access to the electrical room after permanent power has been energized, he/she will be escorted at all times by an authorized Wilkinson Electric employee
7. Tags
  - A. Tags used in the lockout / tagout process shall contain a statement prohibiting unauthorized operation of the disconnecting means or removal of the tag, must be readily identifiable as a tagout device and suitable for the environment and duration of the Lockout/Tagout Task.
  - B. The tag must have informational spaces available for:
  - C. Authorized employee name
  - D. Name of "Business Entity"
  - E. Date / Time
  - F. Contact number
  - G. The construction, markings and written information on the tag must be of such to ensure deterioration will not occur when exposed to weather and/or corrosive environment.

- H. The tag shall be applied to the lock either by a tie-wrap or by running the lock shaft through the grommet hole on the tag.
- I. Tags may be re-used, only if all information is clearly removed from prior use.
- J. Alterations of tags or use of the tags for other than this procedure is prohibited.

#### 8. Lockout Devices

- A. A lockout device shall include a lock (either keyed or combination)
- B. The lockout device shall include a method of identifying the individual who installed the lockout device
- C. A lockout device shall be permitted to be only a lock, if the lock is readily identifiable as a lockout device, in addition to having a means of identifying the person who installed the lock.
- D. Lockout devices shall be attached to prevent operating of the disconnecting means without resulting to undue force or the use of tools.
- E. Lockout devices shall be suitable for the environment and for the duration of the lockout.
- F. Whether keyed or combination locks are used, the key or combination shall remain in the possession of the individual installing the lock.
- G. Breaker lockout device, lock and tag shall be used on all breakers, rendering them inoperable that have been opened for the purpose of performing work under the requirements of the lockout /tagout procedure
- H. Toggle switch lockout device, lock and tag shall be used on all toggle switches including light switches and motor switches, rendering them inoperable that have been placed in the "off" position as a requirement of the lockout / tagout procedure.
- I. Cord lockout devices, locks and tags shall be used on all cord caps that in the event a cord plug has been disconnected as a requirement of the lockout / tagout procedure.

#### 9. Program Review

- A. Program review shall be performed by Safety Management following any incident involving LOTO to ensure program requirements are compliant with NFPA and OSHA standards.
- B. An audit will be conducted at least annually by Safety Management and shall:
  - I. Review at least one lockout/tagout in progress and the procedure details.
  - II. Be designed to correct deficiencies in the lockout/tagout procedure or in employee understanding.
  - III. Be documented and submitted to the Wilkinson Electric Safety Department by the end of each year.
- C. Recommendations for the revision of this program shall be submitted to the Wilkinson Electric Safety Department in writing.

#### **TRAINING**

- 1. New employees will receive LOTO Awareness training during the New Employee Orientation, meeting the Affected Employee training requirements.
- 2. Awareness training does not meet the "Authorized Employee" training requirements and no employee shall consider themselves "Authorized" to perform LOTO without additional training
- 3. All employees shall receive training on the Wilkinson Electric lockout/tag out procedure before implementing the procedures.
- 4. Additional training shall be required if a change in machinery, equipment or process presents new hazards
- 5. Refresher training shall be required at least once yearly or when the employee demonstrates they do not understand the procedure.
- 6. All employees have the expectation to use their **STOP WORK AUTHORITY** in the event an unsafe situation may expose our employees or other affected workers to potential hazards or risks.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

- 5.2.1 LOTO Notification to Contractors
- 5.2.2 Emergency Lock Removal
- 5.2.3 Electrical Room Signage





### LOTO Notification to Contractors

I certify that \_\_\_\_\_ (outside personnel/contractor) has been informed of the Wilkinson Electric lockout/tagout procedures.

Additionally, this will serve as a notice to

- De-energize equipment
- Re- energize equipment

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



### Emergency Lock Removal Form

<b>This form is to be used when a Lockout/Tagout (LOTO) device is to be removed by someone other than the person who initially installed the LOTO device. This activity requires the approval of two (2) Supervisors. One of the approving Supervisors on this form must be the person removing the LOTO device.</b>			
Date:		Time:	
1.	Name of LOTO device owner whose lock/tag is to be removed:		
2.	LOTO device owner's contact information ( <i>review emergency contact form, contact HR or Safety</i> ):		
3.	LOTO device owner's Supervisor name and contact information:		
4.	Document attempt to contact LOTO device owner:		
	Date/Time	Method of attempted contact	Result
	A.		
	B.		
5.	Reason for removing lock ( <i>i.e., LOTO owner called in sick, LOTO device owner forgot to remove lock before leaving site, etc.</i> ):		
6.	Evaluate the entire affected system to ensure employee(s) safety before LOTO device is removed. Yes or No		

7. Notified & Authorizing Supervisor: (LOTO Removal requires two Supervisors)

			Yes or No
Supervisor 1 Name	Contact Number	Date/Time	Approval Given
			Yes or No
Supervisor 2 Name	Contact Number	Date/Time	Approval Given

8. Which of the two Supervisors listed above is removing the LOTO device(s):

Supervisors Name	Date	Time

9. Approval by Safety to remove LOTO device(s):

Safety Manager Name	Signature	Date

\*This form will be maintained in the project files and a copy forwarded to the Safety Department.





# ELECTRICAL HAZARD AUTHORIZED PERSONNEL ONLY

Wilkinson Electric  
Authorized Employees  
(List Below)

Wilkinson Electric Field Manager: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Wilkinson Electric Crew Foreman: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Wilkinson Electric On-Site  
Safety Coordinator: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Wilkinson Electric Project Manager: \_\_\_\_\_

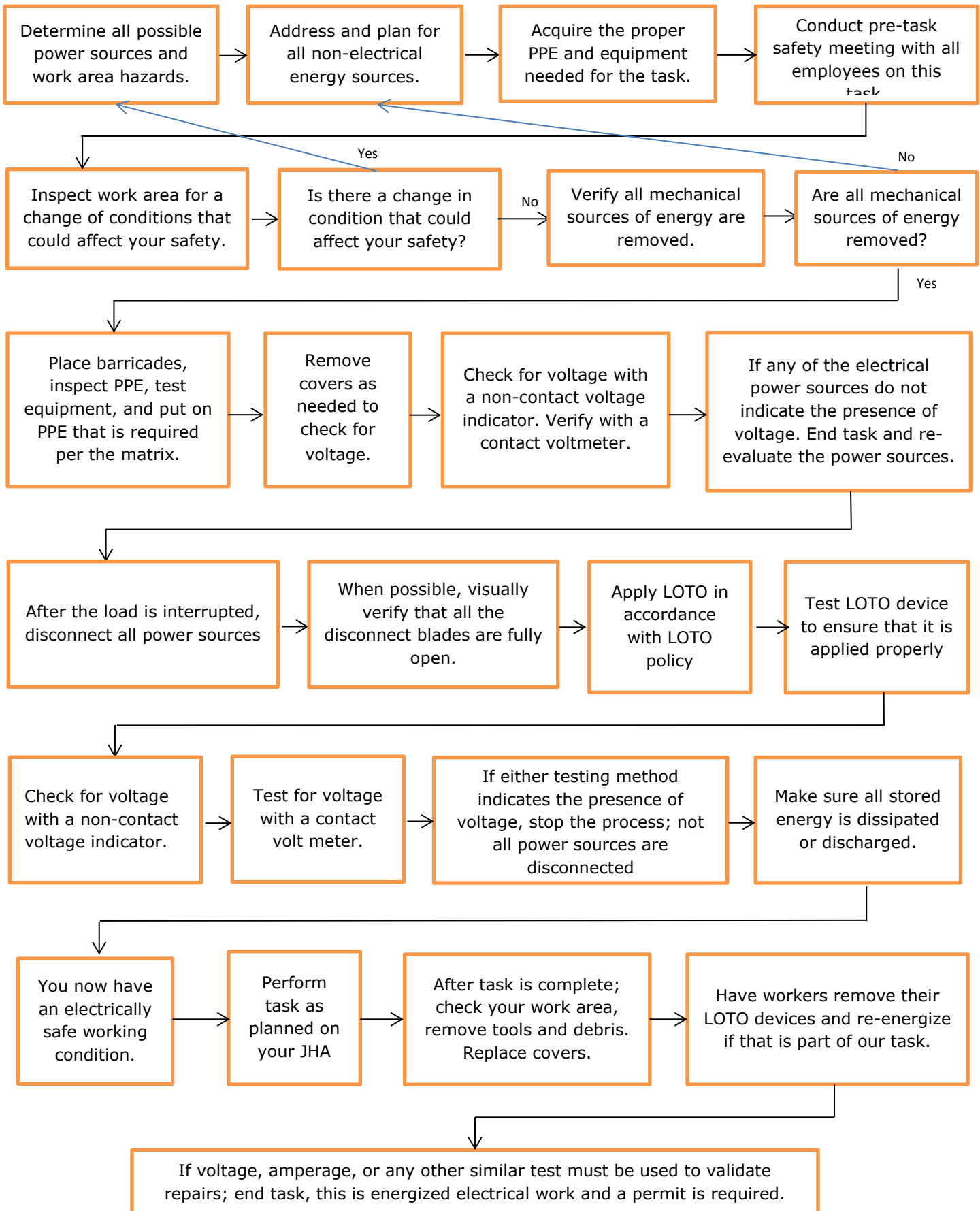
Contact Number: \_\_\_\_\_

Wilkinson Electric Safety Manager: \_\_\_\_\_

Contact Number: \_\_\_\_\_



### LOTO Program Flowchart Less than 600v







## Energized Electrical Work Program 3 Phase 600 Volts or Less

### PROGRAM STATEMENT

This electrical safety program is designed to structure safety procedures that will effectively meet the realistic demands of professional electrical field employees who are required to work in the presence of electrical energy. Wilkinson Electric has a ZERO TOLERANCE for any employee that performs any energized work that is not within 100% compliance with the procedure outlined in this program. This program is designed to encourage self-discipline to all employees who occasionally must perform work on or near exposed energized electrical conductors and circuits rated 600 volts, 3-phase or less and to assure they are authorized and qualified as outlined in this program.

1. **PURPOSE** This program has been established to ensure that electrical work on energized parts is performed only when necessary, and every alternative means to carry out de-energized work has been considered and eliminated, and to establish safeguards that will identify and control all hazards encountered in testing, maintenance, construction and all other work involving exposure to live electrical parts and circuits.
2. **SCOPE** This program and procedure apply to all Wilkinson Electric divisions, employees, managers, supervisors, and subcontractors required to perform work on or around energized electrical circuits or parts that are rated 600 volts, 3 phases or less.

### DEFINITIONS

1. **Arc Flash Boundary:** When an arc flash hazard exists, an approach limit at a distance from a prospective arc source within which a person could receive a second degree burn if an electrical arc flash were to occur.  
**Informational Note:** *A second degree burn is possible by an exposure of unprotected skin to an electric arc flash above the incident energy level of 5 J/cm<sup>2</sup> (1.2 cal/cm<sup>2</sup>).*
2. **Authorized Persons:** One who has met all the requirements of a qualified person, have been authorized by division management to perform work on or around energized electrical circuits or parts and have received training in all the following:
  - A. The skills and techniques necessary to distinguish exposed energized parts from other parts of electric equipment.
  - B. The skills and techniques necessary to determine the nominal voltage of exposed energized parts.
  - C. The decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the work safely.
  - D. The Wilkinson Electric Energized Electrical Work Program within the last 12 months.
  - E. An authorized person must hold a valid journeyman electricians license, or the equivalent in experience and training as determined by division management.
3. **Energized Electrical Work:** When working within the Limited approach boundary *or* Arc flash boundary of exposed energized electrical conductors or circuit parts that are NOT placed in an electrically safe work condition.
4. **Arc Flash Suit:** A complete arc-rated clothing and equipment system that covers the entire body, except for the hands and feet. *Informational Note:* An arc flash suit may include pants or overalls, a jacket or a coverall, and a beekeeper-type hood fitted with a face shield. Arc rated clothing and equipment shall be supplied by the Wilkinson Electric Division performing the work.
5. **De-energized:** Free from any electrical connection to a source of potential difference and from electrical charge; not having a potential difference from that of the earth.
6. **Electrical Hazard:** This is recognized to include three separate hazard categories.
  - A. **Electric Shock** (a) by simultaneous contact with both the energized ungrounded and grounded conductors, (b) by contact with one of the energized conductors and the ground, and (c) by contact with a metallic part that has become energized by an energized conductor while also in contact with the ground.
  - B. **Electric Arc:** Arcing faults or "flash" burns are generated as a result of inadequate electrical contact or poor insulation, from phase to ground or phase to phase, as short-circuit current surges through vaporized metal and carbon. Arc temperatures can reach 35,000 degrees F. and the length and duration of the arc will vary. Burns are severe and often fatal.
  - C. **Arc Blast:** Tremendous air pressure is developed as a result of the instantaneous occurrence of an electric arc, in the form of a shock wave that may cause property damage, injury or death.

7. Energized: Electrically connected to, or is, a source of voltage.
8. AR Clothing: Protective clothing that meets all the requirements of ASTM F 1506 and has been labeled specifically with:
  - A. The tracking identification code system
  - B. Identified as meeting the requirements of ASTM F 1506
  - C. Manufacturers Name
  - D. Size and other associated standard labeling
  - E. Care instructions
  - F. Fiber content
9. Incident Energy: The amount of THERMAL energy impressed on a surface, a certain distance from the source, generated during an electrical arc event. One of the units used to measure Incident energy is calories per centimeter squared (cal/cm<sup>2</sup>).
10. Incident Energy Analysis: A component of an arc flash risk assessment used to predict the incident energy of an arc flash for a specified set of conditions.
11. Qualified Person: One who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received safety training to identify and avoid the hazards involved.
12. Risk: A combination of the likelihood of occurrence of injury or damage to health and the severity of injury or damage to health that results from a hazard.
13. Risk Assessment: An overall process that identifies hazards, estimates the potential severity of injury or damage to health, estimates the likelihood of occurrence and determines if protective measures are required
14. Testing Instrument: An adequately rated voltage test instrument that has the capability to test each phase conductor or circuit part to verify it is de-energized and each phase conductor or circuit part both phase-to-phase and phase-to-ground. *Proximity detectors (non-contact tester, tic-tester) shall not be permitted to be used in this procedure.*
15. Trouble Shooting: The testing of live electrical circuits known as troubleshooting shall be confined to the purpose of diagnostic readings of voltage and amperage only. All methods of safety will be employed during this procedure, and the live parts shut down and locked out for subsequent repair or additional work.

**REQUIREMENTS**

1. Energized electrical work includes working on or near any energized electrical system, whether alternating or direct current, including, but not limited to, service entrance sections, distribution switchgear, transformers, distribution panels, UPS Systems and branch circuit wiring and may include, but not be limited to:
  - A. Voltage Testing
  - B. Circuit Testing
  - C. Trouble-shooting
  - D. Power switching
  - E. De-energizing and Re-energizing Procedures
  - F. Pushing fish tapes or pushing/pulling wire into an energized enclosure
  - G. Work performed on energized enclosures
  - H. Excavations near underground electrical lines
2. All circuits, equipment, devices and other apparatus must be placed into an electrically safe work condition before any work can be performed. If the equipment cannot be placed into an electrically safe condition the Energized Electrical Work Permit, which is part of this procedure, must be utilized and approved as indicated. No management approval shall be granted unless all requirements of the Wilkinson Electric Energized Electrical Work Program have been satisfied.
  - A. All temporary feeder and branch circuits shall be run as a multiconductor cord or in a raceway and not subject to physical damage.
  - B. If a feeder circuit drops from overhead to a panel the drop shall be a hard usage cord i.e. SO cord or equivalent or in a raceway. If Romex or NM cable is utilized for the temporary electric circuit a j-box must be mounted in the ceiling at least 8' from the floor and the circuit converted to raceway or SO cord or equivalent hard usage cable using strain relief connectors.
  - C. Feeder circuits installed underground shall be in a raceway from where it comes through the slab to the panel it feeds.

- D. At no time is Romex or NM cable allowed to be positioned on the floor, in a pinch point or to be unprotected from physical damage.
3. An electrically safe (de-energized) work condition shall be achieved when performed in accordance with Wilkinson Electric program and the following conditions have been met:
- A. Determine all possible sources of electrical supply to the specific equipment. Check applicable up-to-date drawings, diagrams, and identification tags.
  - B. After properly interrupting the load current, open the disconnecting device(s) for each source.
  - C. Where it is possible, visually verify that all blades of the disconnecting devices are fully open, or that draw-out type circuit breakers are withdrawn to the fully disconnected position.
  - D. Apply lockout/tagout devices in accordance with Wilkinson Electric Lockout/Tagout program.
  - E. Use an adequately rated voltage test instrument to test each phase conductor or circuit part to verify it is de-energized. Test each phase conductor or circuit part both phase-to-phase and phase-to-ground. Before and after each test, determine that the test instrument is operating satisfactorily through verification on a known voltage source. Proximity detectors (non-contact tester, tic-tester) shall not be permitted to be used in this process.
4. Where the possibility of induced voltages or stored electrical energy exists, ground the phase conductors or circuit parts before touching them. Where it could be reasonably anticipated that the conductors or circuit parts being de-energized could contact other exposed energized conductors or circuit parts, apply ground-connecting devices rated for the available fault.
- A. Only authorized persons are permitted to work on electrical conductors or circuit parts that have been de-energized and locked out.
  - B. Only authorized persons are permitted to work on electrical conductors or circuits that cannot be de-energized.
  - C. All equipment shall be installed and used in accordance with the manufacturer's instructions.
  - D. Steps shall be taken to maintain electrical equipment's insulation and enclosure integrity.
  - E. All work on equipment that is energized at 50 volts or more, either AC or DC, shall be planned and documented according to the procedures of this program.
  - F. Every attempt shall be made to protect employees from shock, burn, arc-blast and other hazards that are present in this working environment.
    - I. Employees shall be responsible for protecting themselves from such hazards with the assistance and supervision of management, and personal adherence to the process set forth in this program.
  - G. Employees shall use only the appropriate equipment to accomplish an assigned task.
  - H. The true effectiveness of any safety program relies upon the execution and acceptance of the program by the employees affected. This program shall be audited annually and revised as needed. The Supervisor shall encourage input from all employees concerning safety procedures and policies.
5. Hazard Control
- A. Control of electrical hazards shall be established and observed by all employees to minimize hazards from electrical energy.
6. Engineering Controls
- A. Approved clearances will be established for all distribution panels and equipment.
  - B. Electrical rooms, vaults and areas containing equipment will be guarded against accidental damage by suitable barriers and structural means.
  - C. Electrical installations will conform to the requirements of the NEC, including support requirements for all conduit and equipment.
  - D. Adequate lighting shall be maintained in all areas where energized work is to be carried out.
  - E. All enclosures, including junction boxes, switches, panels, etc., as required by the NEC, shall be properly maintained to safely contain energized parts. Poorly grounded or ungrounded electrical equipment may cause shock injuries. Close attention must be paid to the condition of all equipment and the integrity of the grounding system
7. Administrative Controls
- A. Every electrical conductor or circuit part shall be considered energized until proven otherwise.
  - B. De-energized conductors and equipment that have not been locked out or tagged shall be treated as energized parts.
  - C. No barehanded contact is to be made with exposed energized electrical conductors or circuit parts above 50 volts to ground.
  - D. All employees will follow established electrical safety requirements set forth in this Program.
  - E. Work on energized electrical circuits or parts is limited to Authorized Persons, under the requirements set forth in this program.

- F. Each Wilkinson Electric Division will train any qualified employee that may be required to work on or around energized electrical circuits or parts in the procedures set forth in this program to qualify them for working as Authorized Persons.
  - G. Access to electrical rooms or other areas engaged in energized work, is limited to those employees who have a legitimate need to enter.
  - H. Housekeeping duties will not be performed at close distances to live parts unless adequate barriers and insulating equipment are employed.
  - I. Portable ladders shall have non-conductive side rails if the ladder or employee might be in a position to contact live electrical parts.
  - J. Physical barriers and warning signs will be used to prevent unauthorized entry to areas where energized work is being carried out.
  - K. Violation of the safety policies and work procedures set forth in this addendum will be considered willful misconduct and subject to disciplinary procedures, up to and including termination.
8. Protective Equipment
- A. Authorized persons shall use an approved electrical rated mat when engaged in the performance of energized electrical work. An exception can be allowed if electrically rated footwear is being worn.
  - B. Only insulated tools that are designed for working on energized circuits, parts, equipment or systems and rated for the appropriate voltages will be used.
  - C. Metal belt buckles, jewelry, key chains, cell phones, pagers, etc., shall be removed when working on or around energized circuits or parts. Hands should be clean and free of lotion or sunscreen to prevent damaging the voltage rated glove liners. Disposable cloth gloves may be worn inside the liners to limit the effects of perspiration.
  - D. Safety glasses and hard hats will be worn at all times. Additional personal protective equipment must be used as outlined in the Wilkinson Electric Energized Electrical Work Arc Flash PPE and Boundary Table.
  - E. Voltage rated gloves will be stored in the proper canvas bag, with the (rubber) liners separated from the outer leather (glove) protectors.
    - I. Recertify gloves every 6 months and indicate date and type on glove sleeve.
    - II. Authorized employee, performing EEW shall inspect all voltage rated PPE before use.
  - F. Blankets will be stored in protective tubes and bear an inspection date of not more than one year from the date of intended use.
  - G. Voltage rated insulated tools should be clean and have a smooth finish with no breaks in the insulation. These tools should be stored separately or in protective devices to avoid damage from other tools or materials.
9. Procedures Construction / Maintenance
- A. The following process shall apply to all work on, or close to exposed and energized electrical conductors or circuit parts. Additional procedures may be needed for specific tasks.
    - I. Every reasonable effort to perform work de-energized shall be exhausted.
    - II. If the decision is made to work on the circuit, equipment or system energized, refer to the energized electrical safety matrix.
      - 1) The definition of energized work is when working within the Limited approach boundary *or* Arc flash boundary of exposed energized electrical conductors or circuit parts that are NOT placed in an electrically safe work condition.
    - III. To work on energized conductors, circuits or parts as identified in this program you must be:
      - 1) A qualified person as defined by this program
      - 2) An authorized person as defined by this program
    - IV. If the client/owner requires that work must be performed on energized circuits they must sign the appropriate permit and Indemnification Agreement included in this program. If the decision to work on energized circuits is made by the management of the Wilkinson Electric Division, then the owner does not need to sign these forms.
    - V. The qualifications and the number of employees that will be involved in the work will be established and authorized persons will be selected for the work.
    - VI. The work hazards and the extent of the risk shall be thoroughly examined.
    - VII. The appropriate Energized Work form will be selected, completed, and approved.
      - 1) This form will be reviewed by each employee performing the work and will be maintained in the immediate work area.
    - VIII. Ensure the appropriate personal protective equipment has been obtained as outlined in the Arc Flash PPE and Boundary Table
    - IX. Manufacturer's instructions and equipment details shall be consulted prior to any work being performed.

- X. All available electrical plans/drawings shall be consulted prior to any work being performed.
  - XI. Appropriate barricades, signs and warning tape must be displayed to restrict the area to unauthorized personnel as well as create safe working space for authorized persons.
  - XII. If the second person cannot remain outside of the Arc Flash Boundary, he or she must be wearing the same PPE as the authorized person performing the work.
  - XIII. Once the work is complete, you should return the energized equipment PPE kit to the office.
- B. Risk Assessment Procedure
- When performing the Risk Assessment, it is critical to determine the condition of maintenance of the Over Current Devices upstream from the work location. OCPDs that have not had adequate maintenance may not operate within the manufacturer's specifications and consequently the available incident energy may be significantly higher. There are 2 types of Risk Assessments that are related to Energized Electrical work, they are; Arc Flash Risk Assessment and Shock Risk Assessment. The authorized person(s) involved in work on or near electrically energized conductors or circuit parts shall be responsible for completing an Energized Electrical Work Permit before any work may be performed.
- I. The Energized Electrical Work Permit must be 100% complete, signed by the service tech and registered with the Service Dispatcher prior to any work being done.
  - II. The client/owner and/or the general contractor shall be briefed on the potential hazards to persons and property.
  - III. If the client/owner requires that the work be performed on energized circuits, a copy of the Energized Electrical Work Permit shall be given to the client/owner and/or the general contractor. If energized electrical work is required by the client/owner, no work shall begin prior to completion of either (i) receiving the approval/signature of the client/owner and/or general contractor on a completed Indemnification Agreement or (ii) completion of a meeting between Management with the client/owner and/or general contractor that includes:
    - 1) Explanation that Energized Electrical Work is an inherently dangerous work activity not included in the original contemplated project.
    - 2) That the Energized Electrical Work can be performed if justified within the allowances of the NFPA 70E 130.2(A) requirements and explain the appropriate safety precautions that will be necessary and preformed.
    - 3) Energized Electrical Work takes additional time and incurs additional costs.
    - 4) Client/owner and/or general contractor will be charged for the additional time and cost associated if it was not included in the original specifications of the job that the Energized Electrical Work would have to be performed.
  - IV. If Wilkinson Electric Division Management determines that it is not possible to perform the Energized Electrical Work in accordance with the NFPA 70E 130.2(A) allowances and in a safe manner even with the precautions set out in this program, then the work is not to be performed by the Division unless changes can be made to protect our employees.
  - V. Management, including the Operations Manager, Project Manager and Safety Management shall review the Energized Electrical Work Permit and approve the work practices, personal protective equipment. In the event it is service work then the Service Manager and the Division Safety Director must be notified prior to beginning. Work may only begin after management approval. Note: Exception: A single Energized Electrical Work Permit shall be permitted to be filed for work that is repetitive in nature such as trouble shooting on a construction project with local management's approval. An Energized Electrical Work Permit must be filed with management for each individual job site and the unique hazards of each project must be evaluated. This Energized Electrical Work Permit will be valid for a period not to exceed 30 days. After 30 days the energized work procedures must be reevaluated, and a new Energized Electrical Work form completed and signed. The permit will be reviewed each day with the affected employees. Additionally, this form must be revised and updated at any time that conditions or equipment changes.
- C. Exemptions to Energized Electrical Work Permit, an energized electrical work permit shall not be required for the following tasks if there is no exposure to inadvertently or intentional contact with energized electrical circuit, equipment or part and the restricted approach boundary is maintained at all times:
- I. Testing, troubleshooting and voltage measuring
  - II. Thermography and visual inspections if the restricted approach boundary is not crossed.
  - III. Access and egress to an area with energized electrical equipment if no electrical work is performed and the restricted approach boundary is not crossed.
  - IV. General housekeeping and miscellaneous non-electrical tasks if the restricted approach boundary is not crossed.
  - V. Where the employer's arc flash risk assessment identifies no arc-flash hazard.



- D. The Energized Electrical Work Permit must be filled out following the directions presented below for each section.
- I. Date work will be performed: The actual date of install or work shall be placed here. If the date is not yet determined, use a tentative date.
  - II. Time that the work will be performed: Use the estimated time the work will be performed. List both approximate start and stop times.
  - III. Project: Enter the Job Name
  - IV. Supervisor Requesting Energized Electrical Work: Enter the name of the supervisor who will be directly responsible for supervising the work.
  - V. Employees involved in the work: Enter the names of all employees that will be directly involved in the work and the date of their Energized Electrical Work training. Be sure to list all persons that will or could enter the Flash Protection Boundary.
  - VI. Employees Assisting: List all employees that will be working in the area but will not cross the Flash Protection Boundary.
  - VII. The Flash Protection Boundary and Hazard Risk Category shall be determined and listed on the Energized Work Permit.
  - VIII. Explain the work to be performed: A detailed explanation of the work to be performed, including exact procedures to be followed, shall be listed.
  - IX. Required PPE: List all PPE identified by the Arc Flash Risk Assessment or the Arc Flash Label on the equipment if these values are higher than the AR clothing rating indicated in the Wilkinson Electric Arc Flash PPE and Boundary Table.
  - X. Explain safety precautions that will be taken: List in detail all procedures that will be followed to minimize hazards and all tests that will be performed before, during and after the work to be performed.
  - XI. Explain why this work must be done energized and why the equipment cannot be placed in an electrically safe condition: A very detailed explanation of the reasons for the energized work must be included in this section. Explanation should include client's reasons for not de-energizing and any options that were presented to the client and the reasons why the client rejected the options.
  - XII. Rescue Plan: Explain in detail the plan for rescue in the event of either a shock or arc event. Include in the plan the use of the rescue equipment, i.e. rescue hook.
  - XIII. Approval: The Energized Work form must be presented to each of the individuals listed and a signature obtained to indicate they have reviewed and approved the energized work.
  - XIV. Involved Employees: All employees will be listed on the Energized Electrical Work Permit and shall review all the documentation and receive task specific training necessary for the work to be performed. Each employee shall sign the Energized Electrical Work permit after completion of this training.
- Note: Although the space provided limits the Energized Work format to a single page document, the document should be viewed as a guideline to assist in the survey and analysis of flash and electrical hazards prior to work on energized parts. The explanations required by these sections should be detailed and may require additional sheets attached to the Energized Work form.*

10. Program Review shall be done at least once a year

#### **TRAINING**

1. Training requirements shall apply to employees authorized to perform energized electrical work.
2. The training required shall be classroom or on-the-job type or a combination of the two. The type and extent of training provided shall be determined by the risk to the employee.
3. Retraining in safety-related work practices and applicable changes shall be performed at intervals not to exceed three years.
4. An employee shall receive additional training (or retraining) under any of the following conditions
  - A. Supervision/annual inspection indicates failure to comply or understand
  - B. New technology, new equipment, procedure changes
  - C. Asked to perform task(s) that are not their regular duties
5. Employees shall be trained in Emergency Response procedures
6. Employees exposed to shock hazards shall be trained in methods of safe release of victims from contact with exposed energized electrical conductors or circuit parts

7. Employees shall be instructed in methods of first aid and emergency procedures, such as approved methods of resuscitation, if their duties warrant such training. Training of employees in approved methods of resuscitation, including cardiopulmonary resuscitation and automated external defibrillator (AED) use shall be as required by the CPR/First Aid/AED licensing authority.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

5.3.1 Employee Notification Energized Electrical Work Program Compliance Statement

5.3.2 EEW Employee Training and PPE Review

5.3.3 Indemnification Agreement

5.3.4 Energized Electrical Work Permit

5.3.5 Rubber Goods Certification

5.3.6 PPE Requirements for EEW





## **Employee Notification Energized Electrical Work Program Compliance Statement**

As an employee of Wilkinson Electric, I understand that I am not permitted to work on any energized electrical system, equipment, circuit or circuit part unless I am authorized to do so by Wilkinson Electric Management and have received the Wilkinson Electric Energized Electrical Work Training. Employees who are not classified as an Authorized Person with regard to the Wilkinson Electric Energized Electrical Work Program will refuse to perform energized electrical work if directed to work on or near energized electrical systems, circuits or circuit parts.

If I am working on a system, circuit or circuit part and discover that it is electrically energized, I will immediately stop work and notify my supervisor and will not resume until the system, equipment, circuit or part is placed into an electrically safe condition.

If at any time I am unsure of a safety procedure or feel that the situation or circumstance is possibly unsafe, I will apply my **Stop-Work-Authority**, notify my supervisor and not continue to work until the unsafe situation or circumstance is resolved.

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Print Employee Name

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Employee Signature

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Date



## EEW Employee Training and PPE Review

Print Name \_\_\_\_\_ Date: \_\_\_\_\_

**Energized Electrical Work Training**

Initial	Date	Item
		Employee Notification – Energized Electrical Work Program Overview
		Pre-Test Wilkinson Electric Energized Electrical Work Program
		Wilkinson Electric EEW Video
		Post-Test Wilkinson Electric Energized Electrical Work Program
		Review of Written Wilkinson Electric EEW Safety Process
		Review of Mandatory Permit & Indemnification Forms to Perform Energized Work
		70E 24-34 Article 130 – Working on or Near Live Parts Handout

**Energized Electrical Work PPE**

Initial	Date	Item
		Cotton Liners – <i>Size:</i>
		Rubber Gloves & Container – <i>Size:</i>
		Leather Gloves – <i>Size:</i>
		Switchboard Matting & Canister
		Insulating Blanket, Canister & 4 Clamp Pins
		Fire Hood (balaclava)
		Hard Hat w/ Arc Shield & Container
		Coverall – <i>Size:</i>
		Insulated Tools – Kit:

Wilkinson Electric has a **ZERO TOLERANCE** for any Wilkinson Electric employee that performs any energized work that is not within 100% compliance with the Wilkinson Electric 5.3 Energized Electrical Work Program.

\_\_\_\_\_  
Signature



## Indemnification Agreement

FOR: \_\_\_\_\_  
Wilkinson Electric City, State

1. When it is required, the Wilkinson Electric Supervisor will obtain authorization from the person assuming liability before starting the work, using the "Indemnity Agreement" for working on energized electrical systems.
2. As a rule, Wilkinson Electric does not work on energized electrical systems. However, we encounter facilities where shutting down the systems would be detrimental to the facility operation or is otherwise required by the general contractor.
3. We are equipped to handle installations requiring us to work on live energized systems; this work adds a higher level of risk to the installation.
4. When we are asked to install our work in, on, and around live systems we ask the customer to understand and accept the risk associated with the installation. We do this with the following form.

WHEREAS, Wilkinson Electric, will be installing electrical work in close proximity to and/or in contact with live energized parts of electrical equipment, in connection with a subcontract agreement with \_\_\_\_\_, herein after referred to as [Contractor] on a subcontract project known as \_\_\_\_\_ located at \_\_\_\_\_.

WHEREAS, it will be to the advantage of the undersigned firm, person and/or Division to not de-energize the required equipment to complete the installation, and Wilkinson Electric desires to be protected from liability from such risk.

NOW THEREFORE, it is hereby agreed by the undersigned that in the event Wilkinson Electric performs such installation,

The undersigned firms, persons agree as follows:

1. Division Name: \_\_\_\_\_ will be in full control of the area in which they are working, limiting access of all non-qualified personnel in the area.
2. To stop anyone from interfering with the orderly prosecution of the installation.
3. To save and hold harmless and indemnify Wilkinson Electric from and against all loss, liability, claims, demands, suits at law, or inequity and judgments (including attorney's fees and all court costs) and awards, regardless of their respective merits, on account of any injury, loss, or damage to any person or property which may be alleged against Wilkinson Electric and which may have been caused in whole or in part by or in connection with the said installation on the aforesaid job by employees or agents of the undersigned.
4. To assume all damages, loss, liability or injury, or the risk thereof, to any employee, property and equipment of the undersigned from all causes whatsoever in connection with the said installation.

\_\_\_\_\_  
Name of Supervisor

\_\_\_\_\_  
Name of Firm, (Owner, End User)

\_\_\_\_\_  
By:

\_\_\_\_\_  
By:

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Date:



### Energized Electrical Work Permit

Date work will be performed:	Time work will be performed:
Project:	Supervisor requesting energized work:
Employees involved in work, glove size & date of Wilkinson Electric C&I Energized Electrical Work Training:	Employees assisting, glove size & date of Wilkinson Electric C&I Energized Electrical Work Training:
Flash Protection Boundary distance:	PPE Class Required:
Explain work to be performed (use/attach extra sheets as needed):	
Justification of why the circuit/equipment cannot be de-energized or the work deferred until the next scheduled outage, See NFPA 70E 130.2(A), (use/attach extra sheets as needed):	
Explain the procedures that will be followed (use/attach extra sheets as needed):	
Explain the Safety Program and Equipment - <i>Must include Rescue Equipment, i.e. Rescue Hook</i> (use/attach extra sheets as needed):	

Explain Rescue Plan (use/attach extra sheets as needed):

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**APPROVAL:**

Wilkinson Electric C&I Division Manager	Date
Wilkinson Electric C&I Project Manager or Service Manager	Date
Wilkinson Electric C&I Division Safety Manager	Date
Wilkinson Electric C&I Site Supervisor	Date
Customer or Client Signature	Date

*(Sign only if the customer/client requires that work must be performed on energized circuits)*

**I HAVE BEEN BRIEFED & I HAVE REVIEWED THE SAFETY INVOLVED IN THIS ENERGIZED WORK REQUEST. I UNDERSTAND IT IS MY RESPONSIBILITY TO ENSURE ALL PROGRAM REQUIREMENTS & SAFETY CONCERNS ARE STRICTLY COMPLIED WITH & FOLLOWED.**

Journeyman Electrician #1	Date	Date of CPR/First Aid Certification
Journeyman Electrician #2	Date	Date of CPR/First Aid Certification

**FORM IS NOT VALID FOR MORE THAN 30 DAYS FROM THE DATE APPROVED**

**\* Attach the signed indemnification agreement to this form and submit to the Project Manager for job files. This agreement is needed only if the customer/client requires that work on energized circuits must be performed.**

- Distribution List**
- \_\_\_ Site Superintendent
  - \_\_\_ Operations Manager
  - \_\_\_ Safety Manager
  - \_\_\_ Project Manager
  - \_\_\_ Customer / Client
  - \_\_\_ General Contractor



## Insulated Rubber Goods Recertification Checklist

1. Insulated Rubber Gloves

Class and ID number	Issued to	Glove Size	Issued date	Last test date	Due date

2. Insulated Rubber Blankets





Class and ID number	Issued to	Blanket size	Issue date	Last test date	Due date

3. Insulated Tools

Kit ID number	Issued to	Issue date	Condition



## Energized Electrical Work PPE Requirements

<p>PPE Class</p> <p style="text-align: center; color: red; font-size: 24pt;"><b>1</b></p> <p>4 cal/cm<sup>2</sup></p>	<p>Arc-rated long-sleeve shirt          Arc-rated long pants or coverall          Hard Hat w/ Arc-rated face shield          Safety glasses          Hearing protection          Leather &amp; voltage rated gloves (as needed)          Leather work shoes</p>	
<p>PPE Class</p> <p style="text-align: center; color: red; font-size: 24pt;"><b>2</b></p> <p>8 cal/cm<sup>2</sup></p>	<p>Arc-rated long-sleeve shirt          Arc-rated long pants or coverall          Hard Hat w/ Arc-rated face shield w/ balaclava          or          Arc-rated flash suit hood with hard hat          Safety glasses, Hearing protection          Leather &amp; voltage rated gloves (as needed)          Leather work shoes</p>	
<p>PPE Class</p> <p style="text-align: center; color: red; font-size: 24pt;"><b>3</b></p> <p>25 cal/cm<sup>2</sup></p>	<p>Arc-rated long-sleeve shirt          Arc-rated long pants          Arc-rated flash suit hood with hard hat          Safety glasses, Hearing protection          Leather &amp; voltage rated gloves (as needed)          Leather work shoes</p>	
<p>PPE Class</p> <p style="text-align: center; color: red; font-size: 24pt;"><b>4</b></p> <p>40 cal/cm<sup>2</sup></p>	<p>Arc-rated long-sleeve shirt          Arc-rated long pants          Arc-rated flash suit hood with hard hat          Safety glasses, Hearing protection          Leather &amp; voltage rated gloves (as needed)          Leather work shoes</p>	

## AC Arc Flash PPE and Boundary

AC Equipment	Arc Flash PPE Category	Arc Flash Boundary
Panelboards, circuits, parts or other equipment rated 240 V and below <b>Parameters:</b> Maximum of 25 kA short-circuit current available; maximum of 0.03 sec. (2 cycles) fault clearing time; working distance 18 in. (455 mm)	1	19 in. (485 mm)
Panelboards, circuits, parts or other equipment rated over 240 V and up to 600 V <b>Parameters:</b> Maximum of 25 kA short circuit current available; maximum of 0.03 sec (2 cycles) fault clearing time; working distance 18 in. (455 mm)	2	3 ft. (900 mm)
600 V class motor control centers (MCCs) <b>Parameters:</b> Maximum of 65 kA short-circuit current available; maximum of 0.03 sec (2 cycles) fault clearing time; working distance of 18 in (455 mm)	2	5 ft. (1.5 m)
600 V class motor control centers (MCCs) <b>Parameters:</b> Maximum of 42 kA short-circuit current available; maximum of 0.33 sec (20 cycles) fault clearing time; working distance of 18 in. (455 mm)	4	14 ft. (4.3 m)
600 V class switchgear (with power circuit breakers or fused switches) and 600 V class Switchboards <b>Parameters:</b> Maximum of 35 kA short-circuit current available; maximum of up to 0.5 sec (30 cycles) fault clearing time; working distance of 18 in (455 mm)	4	20 ft. (6 m)
Other 600 V class (277 V through 600 V nominal) equipment <b>Parameters:</b> Maximum of 65 kA short-circuit current; maximum of 0.03 sec (2 cycles) fault clearing time; working distance of 18 in. (455 mm)	2	5 ft. (1.5 m)
<b>Note:</b> For equipment rated 600 V and below and protected by upstream current-limiting fuses or current-limiting circuit breakers sized at 200 amperes or less, the arc flash PPE category can be reduced by one number but not below arc flash PPE category 1.		

## DC Arc Flash PPE and Boundary

DC Equipment	Arc Flash PPE Category	Arc Flash Boundary
Storage batteries, dc switchboards and other dc supply sources; 100 V or more but less than 250 V. <b>Parameters:</b> Voltage-250 V rated; Maximum arc duration-2 sec.; Working distance-18 in. (455 mm)		
Short-circuit current less than 4 kA	1	3 ft. (900 mm)
Short-circuit current 4 kA to less than 7 kA	2	4 ft. (1.2 m)
Short-circuit current 7 kA to less than 15 kA	3	6 ft. (1.8 m)
Storage batteries, dc switchboards and other dc supply sources; 250 V up to 600 Volt <b>Parameters:</b> Voltage-600 Volt rated; Maximum arc duration-2 sec.; Working distance-18 in (455 mm)		
Short-circuit current less than 1.5 kA	1	3 ft. (900 mm)
Short-circuit current 1.5 kA to less than 3 kA	2	4 ft. (1.2 m)
Short-circuit current 3 kA to less than 7 kA	3	6 ft. (1.8 m)
Short-circuit current 7 kA to less than 10 kA	4	8 ft. (2.5 m)

**Note:** Apparel that can be expected to be exposed to electrolyte must meet both of the following conditions:

1. Be evaluated for electrolyte protection in accordance with ASTM F1296
2. Be arc-rated in accordance with ASTM F1981



## Energized Electrical Work Program Single Phase 250 Volts or Less

### PROGRAM STATEMENT

1. The electrical safety program is designed to structure the safety process that will effectively meet the realistic demands of professional electrical field employees who are required to work in the presence of electrical energy. Wilkinson Electric has a **ZERO TOLERANCE** for any Wilkinson Electric employee that performs any energized work that is not within 100% compliance with this program.
2. The program is designed to encourage self-discipline to all Wilkinson Electric employees who must perform work on or near exposed energized electrical conductors and circuit parts rated 50 volts and greater up to 250-volt single phase and that they are **authorized** and **qualified** as outlined in this program. For voltages greater than 250-volt single phase, refer to the appropriate Energized Electrical Work Program according to the voltage present.
3. This program has been established to ensure that electrical work on energized parts is performed only when necessary, and every alternative means to carry out de-energized work has been considered and eliminated, and to establish safeguards that will identify and control all hazards encountered in testing, maintenance, service and all other work involving exposure to live electrical parts.
4. This program applies to all Wilkinson Electric divisions, employees, service techs, managers, supervisors, and subcontractors required to perform work on or around energized electrical single-phase circuits or parts that and rated 250 volts, single phase or less. All 3-phase work must comply with section 5.3 or 5.4 determined by the voltage present.

### DEFINITIONS

1. Authorized Persons: An authorized person shall meet all the requirements of a qualified person. They shall be trained in all the following:
  - A. The skills and techniques necessary to distinguish exposed energized parts from other parts of electric equipment.
  - B. The skills and techniques necessary to determine the nominal voltage of exposed energized parts.
  - C. The decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the work safely.
  - D. The Wilkinson Electric Energized Electrical Work Safety Program.
  - E. In addition, an authorized person may hold a valid journeyman electricians license, or the equivalent in experience and training as determined by management.
2. Energized Electrical Work: Any work on electrical equipment, circuits, devices, systems, or any other energized part(s) where an employee is required to deliberately, or could accidentally, place any part of his body, tool or material into or around such electrical devices where the voltage has been deemed to be in excess of 50 volts.
3. De-energized: Current carrying parts that are free from any connection to a source of voltage or from electric charge; not having a potential different than that of the earth.
4. Electrical Hazard: This is recognized to include three separate hazard categories.
  - A. Electric Shock
    - I. Simultaneous contact with both the energized ungrounded and grounded conductors.
    - II. Contact with one of the energized conductors and the ground, and
    - III. Contact with a metallic part that has become energized by an energized conductor while also in contact with the ground.
  - B. Electric Arc: Arcing faults or "flash" burns are generated due to inadequate electrical contact or poor insulation, from phase to ground or phase to phase, as short-circuit current surges through vaporized metal and carbon. Arc temperatures can reach 35,000 degrees F. and the length and duration of the arc will vary. Burns are severe and often fatal.
  - C. Arc Blast: Tremendous air pressure is developed as a result of the instantaneous occurrence of an electric arc, in the form of a shock wave that may cause property damage, injury or death.
  - D. Energized: Electrically connected to a source of voltage or otherwise electrically charged with a potential noticeably different than that of the earth.
5. Qualified Person: A qualified person shall be knowledgeable of the construction and operation of equipment and trained to recognize and avoid the electrical hazards.
  - A. A qualified person must be familiar with and trained in:

- I. Proper use of special precautionary techniques,
  - II. Personal protective equipment,
  - III. Insulating and shielding materials,
  - IV. Along with insulated tools and test equipment.
- B. A person can be considered qualified in respect to certain equipment and methods and still be unqualified for others.
6. Testing Equipment: For this program, only testing equipment that bears the identifying mark of a recognized testing laboratory, such as UL or CSA, will be used in field operations.
7. Trouble Shooting: The testing of live electrical circuits known as troubleshooting shall be confined to the purpose of diagnostic readings of voltage and amperage only. All methods of safety will be employed during this process, and the live parts shut down and locked out for subsequent repair or additional work.

### RESPONSIBILITIES

1. Employee
  - A. Shall adhere to program requirements
  - B. Shall be trained for Wilkinson Electric Energized Electrical Work prior to starting task
  - C. Authorized Employee must meet all defined training and experience requirements
2. Supervisor
  - A. Shall confirm employee EEW training prior to starting task
  - B. Review EEW Permit request and safety requirements with Safety Management prior to anyone starting work.
3. Safety Management
  - A. Review EEW Permit prior to crew starting work
  - B. Provide Training and Review of EEW Program

### PROGRAM REQUIREMENTS

1. Energized electrical work includes working on or near any energized electrical system, whether alternating or direct current, including, but not limited to, service entrance sections, distribution switchgear, transformers, distribution panels, UPS Systems and branch circuit wiring and may include, but not be limited to:
  - A. Voltage Testing,
  - B. Circuit Testing,
  - C. Trouble-shooting,
  - D. Power switching,
  - E. De-energizing and Re-energizing Process,
  - F. Pushing fish tapes or pushing/pulling wire into an energized enclosure,
  - G. Work performed on energized enclosures,
  - H. Excavations near underground electrical lines.
2. All circuits, equipment, devices and other apparatus must be placed into an electrically safe work condition before any work can be performed.
  - A. If the equipment cannot be placed into an electrically safe condition an Energized Electrical Work Permit must be completed and approved by the Supervisor and with the Safety Management. This approval can be accomplished with a phone call prior to beginning any EEW.
  - B. An electrically safe (de-energized) work condition shall be achieved when performed in accordance with Division program and the following conditions have been met:
    - I. Determine all possible sources of electrical supply to the specific equipment. Check applicable up-to-date drawings, diagrams, and identification tags.
    - II. After properly interrupting the load current, open the disconnecting device(s) for each source.
    - III. Where it is possible, visually verify that all blades of the disconnecting devices are fully open, or that draw-out type circuit breakers are withdrawn to the fully disconnected position.
    - IV. Apply lock/out tag/out devices in accordance with Wilkinson Electric lock/out tag/out program.
    - V. Use an adequately rated voltage detector to test each phase conductor or circuit part to verify they are de-energized.
      - 1) Proximity detectors shall be permitted for preliminary testing but shall not be considered an adequately rated voltage detector. An additional test with an adequately rated voltage detector will be required when a proximity tester has been utilized.  
**\*Note:** The suggested test instrument is a vibrometer (Wiggy). The vibrometer does not rely on internal voltage sourced to operate functionally and therefore is the most reliable instrument for determining a circuit is de-energized.



- C. Where the possibility of induced voltages or stored electrical energy exists, ground the phase conductors or circuit parts before touching them. Where it could be reasonably anticipated that the conductors or circuit parts being de-energized could contact other exposed energized conductors or circuit parts, apply ground-connecting devices rated for the available fault.
  - I. Only authorized persons are permitted to work on electrical conductors or circuits that cannot be de-energized.
  - II. All equipment shall be installed and used in accordance with the manufacturer's instructions.
  - III. Steps shall be taken to maintain electrical equipment's insulation and enclosure integrity.
  - IV. Every attempt shall be made to protect employees from shock, burn, arc-blast and other hazards that are present in this working environment.
  - V. Employees shall be responsible for protecting themselves from such hazards with the assistance and supervision of management, and personal adherence to this program.
  - VI. Employees shall use only the appropriate equipment to accomplish an assigned task.
  - VII. The true effectiveness of any safety program relies upon the execution and acceptance of the program by the employees affected.
  - VIII. This program shall be audited annually and revised as needed. The management shall encourage input from all employees concerning safety program requirements and process.
  - IX. Training is essential to employee safety. Each Wilkinson Electric Division shall provide up-to-date training to employees, including proper documentation, on an annual basis.
  - X. Employees shall keep current on personal protective techniques, safety policies and techniques and potential hazards.
  - XI. Hazard Control of electrical hazards shall be established and observed by all employees to minimize hazards from electrical energy
- 3. Engineering Controls
  - A. Approved clearances will be established for all distribution panels and equipment.
  - B. Electrical rooms, vaults and areas containing equipment will be guarded against accidental damage by suitable barriers and structural means.
  - C. Electrical installations will conform to the requirements of the NEC, including support requirements for all conduit and equipment.
  - D. Adequate lighting shall be maintained in all areas where energized work is to be carried out.
  - E. All enclosures, including junction boxes, switches, panels, etc., as required by the NEC, shall be properly maintained to safely contain energized parts.
  - F. Poorly grounded or ungrounded electrical equipment may cause shock injuries.
  - G. Close attention must be paid to the condition of all equipment and the integrity of the grounding system.
- 4. Administrative Controls
  - A. Every electrical conductor or circuit part shall be considered energized until proven otherwise.
  - B. De-energized conductors and equipment that have not been locked out or tagged shall be treated as energized parts.
  - C. No barehanded contact is to be made with exposed energized electrical conductors or circuit parts above 50 volts to ground.
  - D. All employees will follow established electrical safety requirements set forth in this Program and Division Safety Program.
  - E. Work on energized electrical parts is limited to Authorized Persons, under the requirements set forth in this Program.
  - F. Access to electrical rooms or other areas engaged in energized work, is limited to those employees who have a legitimate need to enter.
  - G. Housekeeping duties will not be performed at close distances to live parts unless adequate barriers and insulating equipment are employed.
  - H. Portable ladders shall have non-conductive side rails if the ladder or employee might be in a position to contact live electrical parts.
  - I. Violation of the safety program and work process set forth in this addendum will be considered willful misconduct and subject to disciplinary actions, up to and including termination.
- 5. Protective Equipment
  - A. Approved rubber gloves rated at 500 volts shall be used when required by the matrix.
  - B. Only tools that are designed and rated for the appropriate voltages will be used on energized circuits, equipment or systems.
  - C. Metal belt buckles, jewelry, key chains, cell phones, pagers, etc., should be removed when working with anything energized.
  - D. Proper PPE will be worn at all times as required by the matrix.
  - E. Voltage rated tools should be clean and have a smooth finish with no breaks in the insulation.

6. Exposed Energized Electrical Conductors or Circuits  
Additional program requirements or process may be needed for specific tasks.
  - A. Employees shall exhaust every reasonable effort to perform work de-energized.
  - B. If the decision is made to work on the circuit, equipment or system energized, and then refer to the energized electrical safety matrix.
  - D. To work on energized devices as identified in this program you must be:
    - I. A Journeyman Electrician or the equivalent in experience and training as determined by management.
    - II. Trained on the Wilkinson Electric Energized Electrical Work Program.
    - III. Be considered an authorized person as defined in this program.
    - IV. The work hazards and the extent of the risk shall be thoroughly examined.
    - V. Ensure the appropriate personal protective equipment has been obtained as outlined in the Matrix.
    - VI. Manufacturer's instructions and equipment details shall be consulted prior to any work being performed.
    - VII. All available electrical plans/drawings shall be consulted prior to any work being performed.
    - VIII. If the second person cannot maintain a safe distance (4 - feet) from the exposed part(s), he or she must be wearing the same PPE as the authorized person performing the work.
    - IX. Complete an Energized Electrical Work Permit.
    - X. Call the immediate supervisor and safety manager prior to beginning any energized electrical work and after the EEW has been completed.
7. Program review at least once a year.

**TRAINING**

1. Shall be completed prior to performing EEW
2. Re-training shall occur at least once a year and when employee exhibits behavior that suggests additional training is needed.
3. When new tools, equipment, or process changes.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 5.4.1 Under Construction (Permit)

## Energized Electrical Work Program

### PROGRAM STATEMENT

1. This electrical safety program is designed to structure safety procedures that will effectively meet the realistic demands of professional electrical field employees who are required to work in the presence of electrical energy. Wilkinson Electric has a **ZERO TOLERANCE** for any employee that performs any energized work that is not within 100% compliance with the procedure outlined in this program. This program is designed to encourage self-discipline to all employees who occasionally must perform work on or near exposed energized electrical conductors and circuits rated 600 volts, 3-phase or less and to assure they are **authorized** and **qualified** as outlined in this program.
2. **PURPOSE** This program was established to ensure that electrical work on energized parts is performed only when necessary, and every alternative means to carry out de-energized work has been considered and eliminated, and to establish safeguards that will identify and control all hazards encountered in work involving exposure to live electrical parts and circuits.
3. **SCOPE** This program and procedure applies to all Wilkinson Electric divisions, employees, managers, supervisors, and subcontractors required to perform work on or around energized electrical circuits or parts that are rated 600 volts, 3-phase or less.

### DEFINITIONS

1. **Arc Flash Boundary:** When an arc flash hazard exists, an approach limit at a distance from a prospective arc source within which a person could receive a second degree burn if an electrical arc flash were to occur.  
*Informational Note:* A second degree burn is possible by an exposure of unprotected skin to an electric arc flash above the incident energy level of 5 J/cm<sup>2</sup> (1.2 cal/cm<sup>2</sup>).
2. **Authorized Persons:** One who has met all the requirements of a qualified person, have been authorized by division management to perform work on or around energized electrical circuits or parts and have received training in all the following:
  - A. The skills and techniques necessary to distinguish exposed energized parts from other parts of electric equipment.
  - B. The skills and techniques necessary to determine the nominal voltage of exposed energized parts.
  - C. The decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the work safely.
  - D. The Wilkinson Electric Energized Electrical Work Safety Program within the last 12 months.
  - E. An authorized person must hold a valid journeyman electricians license, or the equivalent in experience and training as determined by division management.
3. **Energized Electrical Work:** When working within the Limited approach boundary *or* Arc flash boundary of exposed energized electrical conductors or circuit parts that are **NOT** placed in an electrically safe work condition.
4. **Arc Flash Suit:** A complete arc-rated clothing and equipment system that covers the entire body, except for the hands and feet. *Informational Note:* An arc flash suit may include pants or overalls, a jacket or a coverall, and a beekeeper-type hood fitted with a face shield. Arc rated clothing and equipment shall be supplied by the Wilkinson Electric Division performing the work.
5. **De-energized:** Free from any electrical connection to a source of potential difference and from electrical charge; not having a potential difference from that of the earth.
6. **Electrical Hazard:** This is recognized to include three separate hazard categories.
  - A. **Electric Shock**
    - I. Simultaneous contact with both the energized ungrounded and grounded conductors,
    - II. Contact with one of the energized conductors and the ground, and
    - III. Contact with a metallic part that has become energized by an energized conductor while also in contact with the ground.
  - B. **Electric Arc:** Arcing faults or "flash" burns are generated as a result of inadequate electrical contact or poor insulation, from phase to ground or phase to phase, as short-circuit current surges through vaporized metal and carbon. Arc temperatures can reach 35,000 degrees F. and the length and duration of the arc will vary. Burns are severe and often fatal.
  - C. **Arc Blast:** Tremendous air pressure is developed as a result of the instantaneous occurrence of an electric arc, in the form of a shock wave that may cause property damage, injury or death.

7. Energized: Electrically connected to, or is, a source of voltage.
8. AR Clothing: Protective clothing that meets all the requirements of ASTM F 1506 and has been labeled specifically with:
  - A. The tracking identification code system
  - B. Identified as meeting the requirements of ASTM F 1506
  - C. Manufacturers Name
  - D. Size and other associated standard labeling
  - E. Care instructions
  - F. Fiber content
9. Incident Energy: The amount of THERMAL energy impressed on a surface, a certain distance from the source, generated during an electrical arc event. One of the units used to measure Incident energy is calories per centimeter squared ( $\text{cal}/\text{cm}^2$ ).
10. Incident Energy Analysis: A component of an arc flash risk assessment used to predict the incident energy of an arc flash for a specified set of conditions.
11. Qualified Person: One who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received safety training to identify and avoid the hazards involved.
12. Risk: A combination of the likelihood of occurrence of injury or damage to health and the severity of injury or damage to health that results from a hazard.
13. Risk Assessment: An overall process that identifies hazards, estimates the potential severity of injury or damage to health, estimates the likelihood of occurrence and determines if protective measures are required
14. Testing Instrument: An adequately rated voltage test instrument that has the capability to test each phase conductor or circuit part to verify it is de-energized and each phase conductor or circuit part both phase-to-phase and phase-to-ground. *Proximity detectors (non-contact tester, tic-tester) shall not be permitted to be used in this procedure.*
15. Trouble Shooting: The testing of live electrical circuits known as troubleshooting shall be confined to the purpose of diagnostic readings of voltage and amperage only. All methods of safety will be employed during this procedure, and the live parts shut down and locked out for subsequent repair or additional work.

## RESPONSIBILITIES

1. Employee
  - A. Shall be trained in Wilkinson Electric EEW prior to starting task
  - B. Shall adhere to all program requirements
  - C. Shall only perform energized electrical work after every reasonable effort to perform work de-energized.
  - D. Shall be trained in Emergency Response First Aid if duties include Rescue operations
2. Supervisor
  - A. Ensure employees are properly trained in the work they are scheduled to perform.
  - B. Shall maintain the Energized Electrical Work Permit Log (EEWP Log)
  - C. Ensure all energized electrical work hazards are identified by a Hazard Analysis and all authorized employees clearly understand the hazards and specific tasks to complete the work safely

## PROGRAM REQUIREMENTS

1. The manager or dispatch will maintain an Energized Electrical Work Log
  - A. Each time an Employee must perform energized work they shall notify the manager or dispatch and the event will be entered on the log and an authorization number will be issued.
2. The following process shall apply to all work on, or close to exposed and energized electrical conductors or circuit parts. Additional procedures may be needed for specific tasks.
  - A. **Employees shall exhaust every reasonable effort to perform work de-energized.**
  - B. If the decision is made to work on the circuit, equipment or system energized, refer to the energized electrical safety matrix. The definition of energized work is:
    - I. When working within the Limited approach boundary *or* Arc flash boundary of exposed energized electrical conductors or circuit parts that are NOT placed in an electrically safe work condition.
  - C. To work on energized devices as identified in this program you must successfully complete the Wilkinson Electric Energized Electrical Work Training Program. Refresher training is required by the NFPA 70E at intervals not to exceed 3 years.

- D. If work must be performed on energized circuits the Employee should explain to the customer, the potential hazards associated with working energized circuits and the precautions being taken to prevent an incident.
    - I. This meeting should be documented with the manager's name, Employee's name, time and date and discussion notes.
  - E. The work hazards and the extent of the risk shall be thoroughly examined.
  - F. The Energized Work Permit shall be completed by the employee and before beginning, contact the manager or dispatch to make them aware energized work will be performed and the estimated time it will take to perform the task.
    - I. This information will be entered on the energized work log.
    - II. Upon completion of the energized work notify the manager or dispatch to verify energized work is completed.
    - III. If the Employee does not report back within the estimated time the manager or dispatch will contact the Employee to verify success of work without incident.
  - G. Ensure the appropriate personal protective equipment and tools are used as identified by the Arc Flash Risk Assessment or the Arc Flash Label on the equipment if these values are higher than the AR clothing rating indicated in the Arc Flash PPE and Boundary Table.
  - H. Manufacturer's instructions and equipment details should be consulted prior to any work being performed.
    - I. All available electrical plans/drawings should be consulted prior to any work being performed.
  - J. Appropriate barricades, signs and warning tape must be employed in order to restrict the area to unauthorized personnel as well as create safe working space for authorized persons.
  - K. Only the authorized employee is allowed to perform the energized work, if there is an apprentice/helper they shall be in support only and remain outside the Arc Flash Boundary.
    - I. If the second person cannot remain outside of the Arc Flash boundary he or she must be wearing the same PPE as the authorized person performing the work.
  - L. Once the work is complete, the Employee will return the energized equipment PPE kit to the vehicle.
3. Survey and Analysis of Flash and Electrical Hazards – Energized Electrical Work Permit
- A. The Energized Electrical Work Permit for must only be used only by Employee. All Employees shall follow the directions listed below for each section of the Energized Electrical Work form:
    - I. List the full name of the Electrician performing the work. List the names of any additional persons that may cross the flash hazard boundary during the performance of the work to be completed.
    - II. If energized electrical work must be performed the Employee is to brief the customer representative on the potential hazards associated with energized electrical work and the precautions being taken to advert an incident.
    - III. Job Name and Number: List the Job Name and Number
    - IV. The Arc Flash Boundary and Hazard Risk Category shall be determined and listed on the Energized Work Permit.
    - V. Location of the upstream over current device that is protecting the work location.
    - VI. Training date for current CPR/First Aid certification.
    - VII. Date and Time the Energized Electrical Work is being performed on: List the Date and time the work will be performed.
      - 1) The approximate start and end times should be listed and called into the Dispatcher to be entered on the Energized Electrical Work Log.
      - 2) A detailed explanation of the work to be performed, including the reasons the work must be performed energized and the options to energized work that were presented to the client.
      - 3) Safety Considerations and Personal Protective Equipment Required:
        - a) The required PPE as determined by the Arc Risk Assessment or Equipment Label shall be checked off.
        - b) Any additional PPE needed shall also be listed.
      - 4) Identify and list the rescue plan.
      - 5) Employee: Shall sign the form after the client has signed the Energized Electrical Work Permit and the Indemnification Agreement.
      - 6) The employee is required to contact the Manager and Safety Manager prior to beginning any energized electrical work and explain why the work is required and the explain the process that will be followed.
      - 7) When finished contact the Manager and Safety Department to inform them the energized electrical work is completed
  - B. Upon completion of energized electrical work contact dispatch or manager to close out the energized electrical work permit on the log.

4. Program Review
  - A. Shall be reviewed at least once a year with incidents in related to this program to ensure compliance with all applicable standards.

**TRAINING:**

1. These training requirements shall apply to employees authorized to perform energized electrical work.
2. The training required shall be classroom or on-the-job type or a combination of the two. The type and extent of training provided shall be determined by the risk to the employee.
3. Retraining in safety-related work practices and applicable changes shall be performed at intervals not to exceed three years. An employee shall receive additional training (or retraining) under any of the following conditions
  - A. Supervision/annual inspection indicates failure to comply or understand
  - B. New technology, new equipment, procedure changes
  - C. Asked to perform task(s) that are not their regular duties
4. Employees exposed to shock hazards shall be trained in methods of safe release of victims from contact with exposed energized electrical conductors or circuit parts
5. Employees shall be instructed in methods of first aid and emergency procedures, such as approved methods of resuscitation, if their duties warrant such training.
6. Training of employees in approved methods of resuscitation, including cardiopulmonary resuscitation and automated external defibrillator (AED) use shall be as required by the CPR/First Aid/AED licensing authority.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 5.5.1 Energized Electrical Work Log
- 5.5.2 Energized Electrical Work Permit







## **Energized Electrical Work Program Greater than 600 volts**

### **PROGRAM STATEMENT**

The line operations electrical safety program is designed to structure safety procedures that will effectively meet the realistic demands of professional electrical line operations employees who are required to work in the presence of electrical energy. Wilkinson Electric has a **ZERO TOLERANCE** for any Wilkinson Electric employee that performs any energized work that is not within 100% compliance with the procedures outlined in this program.

The program is designed to encourage self-discipline to all Wilkinson Electric employees who occasionally must perform work on or near exposed energized electrical conductors and circuit parts rated greater than 600 volts and that they are authorized and qualified as outlined in this program.

Whenever possible, it is recommended to eliminate the hazard through working de-energized or if not possible to eliminate the hazard by covering up the exposed energized parts with rubber goods of one type or another. It must be understood that while covering up the exposed energized parts, the employees need to protect themselves by wearing the correct personal protective equipment (PPE).

This program has been established to ensure that electrical work on energized parts is performed only when necessary, and every alternative means to carry out de-energized work has been considered and eliminated, and to establish safeguards that will identify and control all hazards encountered in testing, maintenance, service and all other work involving exposure to live electrical parts.

This program applies to all Wilkinson Electric Line Operations employees, managers, supervisors, and subcontractors.

### **DEFINITIONS**

1. Authorized Persons: A person determined by Wilkinson Electric to be authorized to perform work on energized parts above 480 volts. An authorized person shall meet all of the requirements of a qualified person. They shall be trained in all of the following:
  - A. Trained in the Wilkinson Electric Energized Electrical Hot Work Procedures and completed the Wilkinson Electric hot Work Training Program.
  - B. The skills and techniques necessary to distinguish exposed energized parts from other parts of electric equipment.
  - C. The skills and techniques necessary to determine the nominal voltage of exposed energized parts.
  - D. The minimum approach distances corresponding to the voltages to which the authorized employee will be exposed.
  - E. The proper use of the special precautionary techniques, personal protective equipment, insulating and shielding material, and insulated tools for working on or near exposed energized parts of electric equipment.
  - F. The decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the work safely.
  - G. In addition, an authorized person will be a qualified journeyman lineman.
2. Contact area: Any location within or from which the worker's body is within reaching, falling or extended reach of energized conductive material beyond stress relief and has a potential to be above 480 volts phase to phase.
3. Danger Zone: A danger zone is any location where an employee is within reach, including a slipping or falling reach or extended by a conductive material being carried, of any conductor having a potential of 480 volts to ground or more.
4. Energized Electrical Work: Any work on electrical equipment, circuits, devices, systems, or any other energized part(s) where an employee is required to deliberately, or could accidentally, place any part of his/her body, tool or material into or around such electrical devices where the voltage has been deemed to be in excess of 480 volts.
5. Flash suit: Protective clothing that provides for easy and rapid removal. The entire flash suit including the window shall have energy absorbing characteristics that are suitable for the arc-flash exposure and shall be supplied by Riviera Electric.

6. De-energized: Current carrying parts that are free from any connection to a source of voltage or from electric charge; not having a potential different than that of the earth. In medium voltages and above the energized parts need to be grounded to an effective earth ground.
7. Electrical Hazard: This is recognized to include three separate hazard categories.
  - A. Electric shock:
    - I. By simultaneous contact with both the energized ungrounded and grounded conductors.
    - II. by contact with one of the energized conductors and the ground, and
    - III. by contact with a metallic part that has become energized by an energized conductor while also in contact with the ground.
  - B. Electric Arc: Arcing faults or "flash" burns are generated as a result of inadequate electrical contact or poor insulation, from phase to ground or phase to phase, as short-circuit current surges through vaporized metal and carbon. Arc temperatures can reach in excess of 35,000 degrees F. and the length and duration of the arc will vary. Burns are severe and often fatal.
  - C. Arc Blast: Tremendous air pressure is developed as a result of the instantaneous occurrence of an electrical arc, in the form of a shock wave that may cause property damage, injury or death.
8. Energized: Electrically connected to a source of voltage or otherwise electrically charged with a potential noticeably different than that of the earth.
9. FR Clothing: Protective clothing that meets all the requirements of ASTM F 1506 and has been labeled specifically with:
  - I. The tracking identification code system
  - II. Identified ad meeting the requirements of ASTM F 1506
  - III. Manufacturer's Name
  - IV. Size and other associated standard labeling
  - V. Care instructions
  - VI. Fiber content
  - VII. The clothing must be designed for easy and rapid removal and the closure design should be appropriate for easy removal of the garment.
  - VIII. Protective Clothing: Clothing including shirts, pants, coveralls and jackets, routinely worn by workers who, under normal working conditions, are exposed to momentary electric arc and related thermal hazards. Protective clothing must be made of all 100% natural fibers and be untreated.
10. Person-in-Charge: A Supervisor at the work site who has the authority to make decisions concerning safety, manpower needs and assignments, work procedures, equipment use. It should be noted that although the Person-in-Charge is ultimately responsible, all employees on the site are responsible for maintaining a safe work environment. All employees, including apprentices, need to take an active part in planning and executing a safe plan of action.
11. Qualified Person: A qualified person shall be knowledgeable of the construction and operation of equipment and trained to recognize and avoid the electrical hazards. Qualified personnel include journeyman lineman or other lineman with higher classifications. A 7<sup>th</sup> or 8<sup>th</sup> step apprentice can be used as a qualified person when a qualified person as defined above is also present and no other apprentices are present.
  - A. A qualified person must be familiar with and trained in:
    - I. The proper use of special precautionary techniques,
    - II. Personal protective equipment,
    - III. Insulating and shielding materials,
    - IV. Along with insulated tools and test equipment.
  - B. A person can be considered qualified in respect to certain equipment and methods and still be unqualified for others.
12. Testing Equipment: For the purpose of this addendum, only testing equipment that bears the identifying mark of a recognized testing laboratory, such as UL or CSA, will be used in field operations.
13. Trouble Shooting: The testing of live electrical circuits known as troubleshooting shall be confined to the purpose of diagnostic readings of voltage and amperage only. All methods of safety will be employed during this procedure, and the live parts shut down and locked out for subsequent repair or additional work.
14. Voltages defined: The PPE specified in these rules is a minimum requirement. When working on energized conductive material in condition C or above, approved live line tools shall be used. Under no circumstances should an employee's hands approach closer than two feet six inches to the energized end of the live line tool.
  - A. Condition A -

- I. Overhead: All energized circuits having a known voltage of not less than 50 volts and not more than 600 volts phase to phase normal operating range.
    - 1) Except: When association with conductors of higher voltage circuits makes energizing the low voltage circuit at a higher voltage possible.
    - 2) When circuits of 600 volts normal operating range or less are located so close to circuits of higher voltage that employees will be in a danger zone.
    - 3) When employees doing work on low voltage lines are likely to come in contact with grounded equipment, wet soil, cross arms, fixtures or poles.
  - II. Work on lines or equipment in Condition A shall be done while wearing the approved rubber gloves, FR clothing, using appropriate rubber protective equipment and using voltage rated insulated tools as needed. Wilkinson Electric will furnish protective equipment.
- B. Underground: All energized circuits having a known voltage of 240 volts or less.
- I. Except:
    - 1) Cables are being pulled in or out and association with cables of higher voltage circuit makes it possible to energize the low voltage circuit at a higher voltage.
    - 2) Circuits of 120/240 volts or less are located so close to circuits of higher voltage that employees will be in a "contact area".
    - 3) Work on lines or equipment in Condition A shall be done while wearing the approved rubber gloves, FR clothing, using appropriate rubber protective equipment and using voltage rated insulated tools as needed. Wilkinson Electric will furnish protective equipment.
- C. Condition B
- I. Overhead:
    - 1) All energized circuits not in Condition A and not exceeding 15,000 volts phase to phase.
    - 2) All circuits in Condition B shall be worked while using approved rubber gloves, sleeves, live line tools, and FR clothing.
  - II. Underground:
    - 1) All energized circuits not in condition "A" and that are known to be not more than 650 volts phase to phase. Work on cables or equipment in condition "B" shall be done while wearing the approved rubber gloves, and FR clothing furnished by Wilkinson Electric.
- D. Condition C
- I. Overhead:
    - 1) All energized circuits not in Condition A or Condition B and those that are known to be above 15,000 volts, but not exceeding 44,000 volts phase to phase.
    - 2) Work on Condition C will be done using approved live line tools, rubber gloves, sleeves, and FR clothing.
  - II. Underground:
    - 1) All energized circuits not in condition "A" or condition "B" and not exceeding 15,000 volts phase to phase.
    - 2) Work on all circuits in condition "C" shall be done while using approved rubber gloves and sleeves, live line tools, and FR clothing furnished by Wilkinson Electric.
- E. Condition D
- I. Underground:
    - 1) All energized circuits not in condition "A", "B", or "C" and that are known to be above 15,000 volts and not exceeding 44,000 volts phase to phase.
    - 2) Work on all circuits in condition "D" shall be done while using the approved rubber gloves, FR clothing, and approved live line tools provided by Wilkinson Electric.

**RESPONSIBILITIES**

1. Employee
  - A. Shall be authorized by attending Wilkinson Electric Energized Electrical Work Training prior to performing any energized electrical work
  - B. Shall only use tools designed for the specific task or job
  - C. Shall protect themselves from exposure by any means necessary including all required PPE
  - D. Shall perform Stop Work Authority if it is necessary to deviate from work method identified during planning phase.
2. Supervisors or Competent Person
  - A. Shall brief all employees who are working on or near hazardous energy and provide methods to control accidental exposure.
  - B. Shall perform a hazard analysis to ensure appropriate work method is identified prior to starting task.

**PROGRAM REQUIREMENTS:**

1. In all electrical work, planning and job briefings are essential to insure the safety of personnel and protection of equipment. Each employee must use special care in considering possible hazards before starting a job. Protective equipment for the job shall be used.
2. Only authorized employees are permitted to perform energized electrical work.
3. Energized electrical work includes working on or near any energized electrical system, whether alternating or direct current, including, but not limited to, service entrance sections, distribution switchgear, distribution lines, transformers, UPS systems and branch circuit wiring and may include, but not be limited to:
  - A. Voltage testing
  - B. Circuit testing
  - C. Trouble-shooting
  - D. Power switching
  - E. De-energizing and re-energizing procedures
  - F. Pushing fish tapes or pushing/pulling wire into an energized enclosure
  - G. Work performed in energized enclosures
  - H. Excavations near underground electrical lines
4. All circuits, equipment, devices and other apparatus must be placed into an electrically safe work condition before any work can be performed. No management approval shall be granted unless all requirements of the High Voltage Energized Electrical Work Program have been satisfied.
5. An electrically safe (de-energized) work condition shall be achieved when performed in accordance with Division program and the following conditions have been met:
  - A. Determine all possible sources of electrical supply to the specific equipment.
  - B. After properly interrupting the load current, open the disconnecting device(s) for each source.
  - C. Where it is possible, visually verify that all disconnects are fully open.
  - D. Apply lock/out – tag/out devices in accordance with Division program.
  - E. Use an adequately rated voltage detector to test each phase conductor or circuit part to verify that they are de-energized.
  - F. With medium voltage or higher systems, or where the possibility of induced or stored electrical energy exists, ground the phase conductors or circuit parts before touching them.
    - I. Leave all grounds in place until all work is completed.
    - II. Ensure that the grounding devices are suitable for the rated fault current available.
6. All work on equipment that is energized at 480 volts or more shall be planned and documented according to the procedures of this program.
  - I. Every attempt shall be made to protect employees from shock, burn, arc-blast and other hazards that are present in this working environment.
  - II. Employees shall be responsible for protecting themselves from such hazards with the assistance and supervision of management, and personal adherence to the policies and procedures set forth in this manual.
  - III. Only authorized persons are permitted to work on electrical conductors or circuits that cannot be de-energized.
7. Clothing and Jewelry
  - A. Exposed conductive articles and other unnecessary metallic accessories will not be worn when working on or near energized equipment.
  - B. Long sleeve shirts with the sleeves rolled down and secured at the wrist shall be worn when working on or near exposed energized equipment, lines or when working aloft.
  - C. When working on or near exposed energized equipment, including work in a danger zone, employees shall wear clothing made of 100% natural fibers, cotton or wool. Employees shall also wear Division provided flame resistant clothing. Synthetic clothing including clothing made from acetate, nylon, polyester or rayon, alone or in blends, is prohibited.
  - D. Hard hats and safety glasses shall be worn at all times when an employee is on the job site.
    - I. Certain specific hazards require special attention. Common sense must be used by the employee to determine the possibility of an arc and the need for additional eye or face protection.
      - 1) FR clothing shall be worn at all times when working on energized electrical conductors, or equipment.
      - 2) Face shields should be worn when performing energized work when the face shield does not create an additional hazard.

**8. Hazard Control**

Control of electrical hazards shall be established and observed by all employees to minimize hazards from electrical energy.

**9. Engineering Controls** are those controls that are created by the manufacturers and electrical standards.

- A. Approved working clearances shall be established and observed at all times.
- B. Electrical installations shall conform to the requirements of the applicable standards and local codes.
- C. Shock injuries may be caused by poorly grounded or ungrounded electrical equipment. Close attention must be paid to the condition of all equipment and the integrity of the grounding system.

**10. Administrative Controls** These controls deal with the paperwork issues involved.

- A. Every electrical conductor or circuit part shall be considered energized until proven otherwise.
- B. De-energized conductors, systems, circuits, or parts that have not been locked out and/or tagged out shall be treated as energized parts.
- C. No bare-handed contact is to be made with exposed energized electrical conductors or circuit parts above 50 volts to ground. Use of leather gloves only is considered to be bare handed. Leather gloves are not to be considered as providing any electrical insulation.
- D. All employees shall follow established electrical safety requirements set forth in this addendum.
- E. Work on energized electrical parts is limited to Authorized persons, under the requirements of this section.
- F. Wilkinson Electric will train employees to qualify them for working as Authorized persons and will establish records and procedures to ensure that only Authorized Persons engage in work on live electrical parts.
- G. Portable ladders, man lifts, and buckets shall be of non-conductive material and approved for work around energized equipment.
- H. Before starting each job, the employee in charge shall conduct a job briefing with the employees involved. The briefing shall cover such subjects as hazards associated with the job, work procedures involved, special precautions, energy source controls, and personal protective equipment requirements.
- I. Violation of the safety policies and work procedures set forth in this addendum will be considered willful misconduct and subject to disciplinary procedures, up to and including termination.

**11. Protective Equipment**

- A. If the live parts operating at 480 volts or more are not placed in an electrically safe work condition, other safety-related work practices shall be used to protect employees who might be exposed to the electrical hazards involved. Such work practices shall protect each employee from arc flash and from contact with live parts operating at 480 volts or more directly with any part of the body or indirectly through some other conductive object. Work practices that are used shall be suitable for the conditions under which the work is to be performed and for the voltage level of the live parts. Appropriate safety-related work practices shall be determined before any person, approaches exposed live parts within the Limited Approach Boundary by using both shock hazard analysis and flash hazard analysis.
- B. Shock hazard analysis-A shock hazard analysis shall determine the voltage to which personnel will be exposed, boundary requirements, and the PPE necessary in order to minimize the possibility of electrical shock to personnel.
- C. Flash Hazard Analysis-A flash hazard analysis shall be done in order to protect personnel from the possibility of being injured by an arc flash. The analysis shall determine the flash protection boundary and the PPE that people within the flash protection boundary shall use.
- D. Work performed in locations containing uninsulated energized overhead lines that are not guarded or isolated, precautions shall be taken to prevent employees from contacting such lines directly with any unguarded parts of their body or indirectly with any conductive materials, tools, or equipment. Where the work to be performed is such that contact with uninsulated energized overhead lines is possible, the lines shall be deenergized and visibly grounded at the point of work, or suitably guarded.
  - I. Authorized persons should wear electrically rated footwear when engaged in the performance of energized work.
  - II. Only tools that are designed and rated for the appropriate voltages shall be used on energized circuits, equipment, or systems.
  - III. Metal belt buckles, jewelry, key chains, cell phones, pagers, etc. should be removed when working on anything energized.
  - IV. Hands should be clean and free of lotion or sunscreen to prevent damaging the voltage rated gloves.
  - V. Safety glasses and hard hats will be worn at all times. Additional PPE must also be used as outlined in this addendum.
  - VI. Rubber goods, such as gloves, blankets and sleeves shall be properly maintained and stored.



- VII. Voltage rated tools should be clean and have a smooth finish with no breaks in the insulation. These tools should be stored separately or in protective devices to avoid damage from other tools or materials.
- VIII. FR clothing suitable for the level of thermal arc blast energies shall be worn whenever the possibility of electrical arcing is present.

12. Process

Shall apply to all work on, or close to exposed and energized electrical conductors or circuit parts. Additional procedures may be needed for specific tasks.

- A. Employees shall exhaust every reasonable effort to perform work deenergized.
- B. If the decision is made to work on the circuit, equipment or system energized, then refer to this addendum. The definition of energized work is:
  - I. Any work on electrical equipment, circuits, devices, systems or any other energized part(s) where an employee is required to deliberately, or could accidentally, place any part of his/her body or any type of tool into or around such electrical devices where the voltage has been determined to be in excess of 480 volts.
- C. Prior to performing any energized work, a hot work permit shall be filled out, approved by management, and reviewed by all affected employees at the tailgate briefing.
- D. To work on energized devices as identified in this program you must be:
  - I. An Authorized/qualified person as defined in this addendum.
  - II. Trained on the Line Operations Energized safety program.
  - III. Be considered an authorized person as defined in this addendum.
  - IV. The qualifications and the number of employees that will be involved in the work will be established and authorized persons will be selected for the work.
  - V. The work hazards and the extent of the risk shall be thoroughly examined.
  - VI. A written pre-job briefing shall be conducted with all affected employees.
  - VII. Ensure the appropriate personal protective equipment has been obtained and examined.
  - VIII. Appropriate barricades, signs and warning devices must be employed in order to restrict the area to unauthorized personnel as well as create safe working space for the authorized persons.

13. Wearing and Use of Rubber Protective Equipment

- A. The rubber protective equipment specified in this addendum are MINIMUM requirements.
- B. A decision about the additional amounts and types of rubber protective equipment that will be needed will be made at the job briefing preceding the work and by the person in charge and as the work progresses. Its use shall be thoroughly explained and discussed at that time. In each case, the decision will be made based on the equipment required to prevent contact by an employee between phase wires or phase to ground. The person in charge shall also consider the arc blast hazards when selecting and assigning PPE.
- C. Rubber gloves of the specified class shall be worn while working on or near any of the following voltage conditions:

<u>Condition</u>	<u>Voltage</u>	<u>Rubber Gloves</u>	<u>Class</u>
A	50 – 600	Mandatory	0, 1, 2
B	601 – 15KV	Mandatory	2
C	15KV – 44KV	Mandatory	**

\*\* Must be approved by Management and the Safety Dept.

- D. Approved rubber gloves will be worn at all times while working in the danger zone or whenever working inside the limited approach boundary.
- E. Rubber gloves must be put on either before climbing the pole or before entering the danger zone, and not removed until outside the danger zone or back on the ground.
- F. Employees on the ground in areas that have the potential of becoming energized will have their rubber gloves on their person and readily accessible as work conditions dictate.
- G. In applying rubber protective equipment such as line hose, insulator hoods and blankets, employees shall protect the nearest and lowest wires first, protecting themselves as work progresses. In removing, the reverse order shall be maintained. Whenever possible, it will be applied from a position underneath the conductor. In condition B and C class two rubber gloves and rubber sleeves must be worn at all times while installing rubber protective equipment.
- H. Rubber protective equipment such as line hose, insulator hoods and blankets must be fastened securely when installed, using sufficient fastenings to prevent a shift in position. They shall be frequently checked during the work.
- I. Rubber protective equipment such as line hose, insulator hoods and blankets will cover all energized conductors and all grounded objects like ground wires, secondary conductors, cables, sheaths, metal

conduits, guys, and span wires that are in body control range, including reaching or falling ranges. In each case, coverage must be complete, including insulators.

- J. When working from insulated aerial baskets or safety boards or platforms in Condition B or C, both class two rubber gloves and rubber sleeves will be worn at all times.
  - K. Face shields should be worn at all times that there exists the possibility of an arc flash or arc blast. Face shields should be worn to reduce the possibility of facial burns.
  - L. FR clothing shall be worn at all times that there exists the possibility of the employee being exposed to the hazards of an arc flash.
14. Work practices for gloving of circuits in excess of 5,000 volts up to 15,000 volts phase to phase -Overhead
- A. This work may be performed only from insulated aerial baskets. Because the mechanical and insulating quality of this equipment is of prime importance, each unit must be inspected visually each day the unit is in use. The insulating fiberglass boom and basket must be thoroughly cleaned at least every 90 days by the crew using the unit. The insulating value of each unit will meet the prescribed standard and will be given a high voltage test every three months. A through mechanical check of the entire unit is to be performed annually.
  - B. Rubber sleeves, gloves and approved safety glasses are to be worn by those actually engaged in rubber glove work. Class 2 gloves, sleeves and blankets are supplied for use on 15KV and are to be inspected and checked by the crew daily and tested by a certified testing agency every 6th month.
  - C. There shall be two qualified employees in the basket and one qualified employee on the ground while performing rubber glove work. Two baskets with one employee in each may be used as a basket crew.
  - D. Before any aerial work begins, a hand line shall be in place. Rope for the hand line shall be rated for 5200 pounds or more.
  - E. Qualified personnel for rubber glove work includes journeyman linemen; 7<sup>th</sup> and 8<sup>th</sup> six-month apprentice linemen; or other linemen with higher classifications.
  - F. Work will be performed on one energized conductor at a time. All other energized or grounded facilities within reaching or falling distance will be thoroughly covered with approved rubber or insulating guards. Special attention should be given to work on concrete, steel or chemically treated poles.
  - G. Rubber gloving of an energized primary shall not be performed during periods of high humidity, high winds or wet weather except in case of emergency.
  - H. The nearest appropriate recloser or breaker will be set for one-time operation before proceeding with rubber glove work.
  - I. Appropriate insulated sticks are to be used to energize or de-energize oil filled equipment. They are to be used also for opening or closing switches and cut outs, installing or removing taps or any other work functions that may produce an arc.
  - J. It is recommended that a foreman and a lineman be selected to train qualified personnel, following the prescribed guidelines. It is expected that safety advisors will lend all possible assistance to this training effort. Films, slides, training yards, necessary tools, equipment and personnel will be made available to carry out this training and instruction program.
    - I. Condition A  
Authorized employees working in condition A shall wear approved rubber gloves, FR clothing, voltage rated insulated tools, safety glasses, and a face shield or FR hood.
    - II. Condition B  
All work performed in condition B shall be performed wearing all PPE required for Underground Condition A above.
    - III. Condition C  
Any work performed in condition C shall be performed using the following PPE:
      - 1) Approved rubber gloves
      - 2) FR clothing
      - 3) Live line tools
    - IV. Condition D  
Work performed in condition D shall be performed using all of the following PPE:
      - 1) Approved voltage rated rubber gloves
      - 2) FR clothing
      - 3) Live line tools
15. Special Conditions
- A. Live Front switch cabinets  
In addition to the requirements for the voltage listed above, employees shall be required to wear a face shield or FR hood when performing energized work in these cabinets regardless of the voltage.

- B. Live Front transformers  
When performing energized work on these transformers regardless of either voltage or the number of phases, in addition to the requirements listed above, face shields or FR hoods shall be worn at all times.
  - C. Confined Space  
Performing energized work in a confined space will require additional FR clothing as well as face shields or FR hoods. The voltage of the exposed parts will determine the level of PPE required.
16. Permitted Energized Work Duties for Apprentices
- A. During the first year an apprentice lineman shall not be permitted to work on energized lines or equipment operating in excess of 240 volts until they have started the second six months, and further shall not be permitted to work alone on energized equipment operating up to 240 volts. In determining the required six months experience on the line crew, the time worked as a groundman, line truck operator or truck operator-groundman on the line crew shall be counted.
  - B. During the second year an Apprentice Lineman will be allowed to rubber glove voltages of 5KV normal operating range and below, and only when assigned to an established qualified Hot Crew. Rubber gloving during this second year is for training only and will at no time take the place of a Lineman or other qualified person on that crew.
  - C. During the third year an Apprentice Lineman will be allowed to rubber glove voltages of 15KV normal operating range and below, and hot sticking voltages in excess of 5KV normal operating range only when assigned to an established qualified Hot Crew. Rubber gloving and hot sticking during this third year is for training only and will at no time take the place of a Lineman or other qualified person on that crew.
  - D. During the fourth year an Apprentice Lineman will be allowed to rubber glove and hot stick work shall be considered a qualified person for purposes of establishing a Hot Crew and will be assisted by a journeyman at all times.
    - I. A fourth year Apprentice Lineman will not be considered qualified for the purpose of training a third year Apprentice Lineman in rubber glove and hot stick work.
    - II. The apprentice will be permitted during the second, third, or fourth years to replace transformer fused and sectionalizing fuses, open and close sectionalizing switches, or open and close pistol grips by hot stick up to 10Kv for training – all switching will be performed with a qualified crew on site and under the direct supervision of a qualified Journeyman Lineman or a person with a higher classification.
17. Program Review
- A. Program review shall be performed at least once a year by the Division Safety Committee and / or following any related incident to ensure program requirements are compliant with NFPA and OSHA standards.
  - B. An audit will be conducted at least annually by the Safety Department and
    - I. Shall cover at least one lockout/tagout in progress and the procedure details.
    - II. Shall be designed to correct deficiencies in the lockout/tagout procedure or in employee understanding.
    - III. Shall be documented and submitted to the Wilkinson Electric Senior VP, Safety by the end of each annual year.
  - C. Recommendations for the revision of this program shall be submitted to the Wilkinson Electric Senior Vice President, Safety in writing.

**TRAINING**

1. Formal training on this program is required before any employee shall be permitted to perform or assist in any energized work. Refresher training shall be performed at least annually or more often as needed or as changes might occur.
2. On the job training shall be performed only by journeyman lineman or above. In no case shall any apprentice of any level be permitted to instruct another apprentice in the energized work practices or policies.
3. Every employee required to perform line work shall receive annual refresher training in the 29 CFR 1910.269 standards.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

No applicable at this time.



## Electrical Transmission and Distribution Line Safety

### PROGRAM REQUIREMENTS

1. Initial Inspections, Tests, or Determinations
  - A. Existing conditions shall be determined before starting work, by an inspection or a test. Such conditions shall include, but not be limited to, energized lines and equipment, conditions of poles, and the location of circuits and equipment, including power and communication lines.
  - B. Electric equipment and lines shall be considered energized until determined to be de-energized by testing.
  - C. Operating voltage of equipment and lines shall be determined before working on or near energized parts.
  - D. No employee shall be permitted to approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table V-1, unless:
    - I. The employee is insulated or guarded from the energized part (gloves or gloves with sleeves rated for the voltage involved shall be considered insulation of the employee from the energized part) or
    - II. The energized part is insulated or guarded from the employee and any other conductive object at a different potential, or
    - III. The employee is isolated, or guarded from any other conductive objects.
  - E. The minimum working distance and minimum clear hot stick distances stated in Table V-1 shall not be violated. The minimum clear hot stick distance is that for the use of live-line tools held by employees when performing live-line work.
  - F. Conductor support tools, such as link sticks, strain carriers, and insulator cradles, may be used: Provided, that the clear insulation is at least as long as the insulator string or the minimum distance specified in Table V-1 for the operating voltage.

**TABLE V-1 – ALTERNATING CURRENT – MINIMUM DISTANCES FOR QUALIFIED PERSONS**

Voltage Range (Phase to Phase)	Voltage Range (Phase to Phase) Hot stick distance
2.1 to 15	2ft. 1 in.
15.1 to 35	2ft. 4 in.
35.1 to 46	2ft. 7 in.
46.1 to 72.5	3ft. 0 in.
72.6 to 121	3ft. 4 in.
138 to 145	3ft. 8 in.
161 to 169	4ft. 0in.
230 to 242	5ft. 3in.
345 to 362	8t. 6in.
500 to 552	11ft. 3in.
700 to 765	15 ft. 0 in.

*Footnote:* For 345-362 KV, 500-552 KV, and 700-765 KV, minimum clear hot stick distance may be reduced provided that such distances are not less than the shortest distance between the energized part and the grounded surface.

2. De-energizing Lines and Equipment
 

When de-energizing lines and equipment operated in excess of 600 volts, and the means of disconnecting from electric energy is not visibly open or visibly locked out, the following portion of this program shall be complied with:

  - A. The particular section of line or equipment to be de-energized shall be clearly identified, and it shall be isolated from all sources of voltage.
  - B. Notification and assurance from the foreman shall be obtained that:
    - I. All switches and disconnects through which electric energy may be supplied to the particular section of line or equipment to be worked have been de-energized.
    - II. All switches and disconnects are plainly tagged indicating that employees are at work.
    - III. That where design of such switches and disconnects permit, they have been rendered inoperable.
  - C. After all designated switches and disconnects have been opened, rendered inoperable, tagged, visually inspected, tests shall be conducted to ensure that equipment or lines have been de-energized.

- D. Protective grounds shall be applied on the disconnected lines or equipment to be worked on.
  - E. Guards or barriers (rubber goods) shall be erected as necessary to adjacent energized lines or equipment.
  - F. When more than one independent crew requires the same line or equipment to be de-energized, a prominent tag for each independent crew shall be placed on the line or equipment by the foreman in charge.
  - G. Upon completion of work on de-energized lines or equipment, each designated foreman in charge shall determine that all employees in the crew are clear, that protective grounds installed by the crew have been removed, and shall report to the designated authority that all tags protecting the crew may be removed.
3. Emergency Procedures and First Aid
- A. The Safety Management shall provide training that our employees are knowledgeable and proficient in:
    - I. Procedures involving emergency situations.
    - II. First-Aid fundamentals including resuscitation.
    - III. Annual retraining of CPR.
  - B. On a crew consisting of 2 or more employees, at least 2 employees shall be CPR/First – Aid certified.
4. Protective Equipment
- A. Rubber protective equipment shall be visually inspected prior to use.
  - B. In addition, and “air” test shall be performed for rubber gloves prior to use.
  - C. Protective equipment of material other than rubber shall provide equal or better electrical and mechanical protection.
  - D. Hard hats shall be worn at the projects by all employees.
  - E. Body belts with straps or lanyards shall be worn to protect employees working at elevated locations on poles, towers, or other structures except where such use creates a greater hazard to the safety of the employee, in which case other safeguards shall be employed.
  - F. Body belts and safety straps shall meet the requirements of OSHA reg. 1926.959. In addition to being used as an employee safeguarding item body belts with approved tool loops may be used for the purpose of holding tools. Body belts shall be free from additional metal hooks and tool loops other than those permitted in 1926.959.
  - G. Body belts and straps shall be inspected before use each day to determine that they are in safe working condition.
5. Live-Line Tools
- A. Only live-line tools having a manufacture’s certification to withstand the following minimum tests shall be used.
    - I. 100,000 volts per foot of length for 5 minutes when the tool is made of fiberglass, or 75,000 volts per foot of length for 3 minutes when the tool is made of wood.
    - II. Or other tests equivalent to those as appropriate.
  - B. All live-line tools shall be visually inspected before use each day. Tools to be used shall be wiped clean and if any hazardous defects are indicated such tools shall be tagged and removed from service.
  - C. Measuring tapes or measuring ropes, which are metal or contain conductive strands shall not be used when working on or near energized parts.
6. Hand Tools
- A. Portable electric hand tools shall:
    - I. Be equipped with three-wire cord having the ground wire permanently connected to the tool frame and means for grounding the other end, or
    - II. Be of the double insulated type and permanently labeled as “Double Insulated” or
    - III. Be connected to the power supply by means of an isolating transformer, or other isolated power supply.
  - B. All hydraulic tools which are used on or around energized lines or equipment shall use non-conducting hoses having adequate strength for the normal operating pressures.
  - C. All pneumatic tools, which are used on or around energized lines or equipment shall:
    - I. Have non-conducting hoses having adequate strength for the normal operating pressures, and
    - II. Have an accumulator on the compressor to collect moisture.
7. Mechanical Equipment
- A. Visual inspections shall be made of the equipment to determine that it is in good condition each day the equipment is to be used.
  - B. Tests shall be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are in proper working condition.
  - C. No employee shall use any motor vehicle equipment having an obstructed view to the rear unless:

- I. The vehicle has a reverse signal alarm above the surrounding noise level or:
  - II. The vehicle is backed up only when an observer signals that it is safe to do so.
8. Aerial Lifts
    - A. The Wilkinson Electric 10.2 Aerial Work Platform Program shall apply to line construction employees.
    - B. When working near energized lines or equipment, aerial lift trucks shall be grounded or barricaded and considered as energized equipment, or the aerial lift truck shall be insulated for the work being performed.
    - C. Equipment or material shall not be passed between a pole or structure and an aerial lift while an employee working from the basket is within reaching distance of energized conductors or equipment that are not covered with insulating protective equipment.
  9. Derrick Trucks, Cranes, and Other Lifting Equipment
    - A. All derrick trucks, cranes, and other lifting equipment shall comply with Subpart N and O of the OSHA 1926 regulations.
    - B. With the exception of equipment certified for work on the proper voltage, mechanical equipment shall not be operated closer to any energized line or equipment than the clearances set forth in Table V-1, unless
      - I. An insulated barrier is installed between the energized part and the mechanical equipment, or
      - II. The mechanical equipment is grounded, or
      - III. The mechanical equipment is insulated, or
      - IV. The mechanical equipment is considered as energized.
  10. Material Handling
    - A. Unloading. Prior to unloading steel, poles, cross arms and similar material, the load shall be thoroughly examined to ascertain if the load has shifted, binders or stakes have broken or the load is otherwise hazardous to employees.
    - B. Pole Hauling. During pole hauling operations, all loads shall be secured to prevent displacement and a red flag shall be displayed at the trailing end of the longest pole.
    - C. Precaution shall be exercised to prevent blocking of roadways or endangering other traffic.
    - D. When hauling poles during the hours of darkness, illuminated warning devices shall be attached to the trailing end of the longest pole.
    - E. Storage. No material or equipment shall be stored under energized bus, energized lines, or near energized equipment, if it is practical to store them elsewhere.
    - F. When materials or equipment are stored under energized lines or near energized equipment, applicable clearances shall be maintained as stated in Table V-1; and extraordinary caution shall be exercised when moving materials near such energized lines or equipment.
    - G. Tag lines. Where hazards to employees exist, tag lines or other suitable devices shall be used to control loads being handled by hoisting equipment.
    - H. Framing. During framing operations, employees shall not work under a pole or a structure suspended by a crane, digger, or similar equipment unless the pole or structure is adequately supported.
    - I. Attaching the load. The hoist rope shall not be wrapped around the load. Adequate lifting slings shall be used.
  11. Grounding for Protection of Employees
    - A. All conductors and equipment shall be treated as energized until tested and grounded.
  12. Installing and/or removing Grounds for Protection of Employees in Energized Work and The Line Operations Hot Work Program shall be followed.
    - A. New Construction. New lines or equipment may be considered de-energized and worked as such where:
    - B. The lines or equipment are grounded, or
    - C. The hazards of induced voltage are not present, and adequate clearances or other means are implemented to prevent contact with energized lines or equipment and the new lines or equipment.
    - D. Communication conductors. Bare wire communication conductors on power poles or structures shall be treated as energized lines unless protected by insulating materials.
    - E. Voltage testing. De-energized conductors and equipment which are to be grounded shall be tested for voltage. Results of the voltage test shall determine the subsequent procedures to be followed.
    - F. Attaching Grounds. When attaching grounds, the ground end shall be attached first, and the other end shall be attached and removed by means of insulated tools or other suitable devices.
    - G. When removing grounds, the grounding device shall first be removed from the line or equipment using insulating tools or other suitable devices.
    - H. Grounds shall be placed between work location and all sources of energy such as close as practicable to the work location, or grounds shall be placed at the work location. If work is to be performed at more than one location in a line section, the section and the conductor to be worked on shall be grounded at

each location. Where the making of a ground is impracticable, or the conditions resulting there from would be more hazardous than working on the lines or equipment without grounding, the grounds may be omitted and the line or equipment worked as energized.

- I. Testing without grounds. Grounds may be temporarily removed only when necessary for test purposes and extreme caution shall be exercised during the test procedures.
- J. Ground lead. A ground lead, to be attached to either a tower ground or driven ground, shall be capable of conducting the anticipated fault current and shall have a minimum conductance of No. 2 AWG copper.

### 13. Overhead Lines

- A. Prior to climbing poles, ladders, scaffolds or other elevated structures, an inspection shall be made to determine that the structures are capable of sustaining the additional or unbalance stresses to which they will be subjected.
- B. Where poles or structures may be unsafe for climbing, they shall not be climbed until made safe by guying, bracing, or other adequate means.
- C. Before installing or removing wire or cable, strains to which poles or structures will be subjected shall be considered and necessary action taken to prevent failure of supporting poles or structures.
- D. When setting, moving, or removing poles, using cranes, derricks, gin poles, A-frames, or other mechanized equipment near energized lines or equipment, precaution shall be taken to avoid contact with energized lines or equipment, except where barriers or protective devices are used.
- E. Unless using suitable protective equipment for the voltage involved, employees standing on the ground shall avoid contacting equipment or machinery working adjacent to energized lines or equipment.
- F. Lifting equipment shall be bonded to an effective ground or it shall be considered energized and barricaded when utilized near energized equipment or lines.
- G. Pole holes shall not be left unattended or unguarded in areas where employees are currently working.
- H. Tag Lines shall be of a nonconductive type when used near energized lines.

### 14. Stringing or Removing De-Energized Conductors

- A. Prior to stringing operations, a briefing shall be held setting forth the plan of operation and specifying the type of equipment to be used, grounding devices and procedures to be followed, crossover methods to be employed, personal protective equipment required, special precautions, and the clearance authorization required.
- B. If the existing line is de-energized, proper clearance authorization shall be secured and the line grounded on both sides of the crossover or, the line being strung or removed shall be considered and worked as energized.
- C. When crossing over energized conductors in excess of 600 volts, rope nets or guard structures shall be installed unless provision is to isolate or insulate the workman or the energized conductor. Where practical the automatic reclosing feature of the circuit-interrupting device shall be made inoperative. In addition, the line being strung shall be grounded on either side of the crossover or considered and worked as energized.
- D. Conductors being strung in or removed shall be kept under positive control by the use of adequate tension reels, guard structures, tie lines, or other means to prevent accidental contact with energized circuits.
- E. Guard structure members shall be sound and of adequate dimension and strength, and adequately supported.
- F. Catch-off anchors, rigging, and hoists shall be of ample capacity to prevent loss of the lines.
- G. The manufacturer's load rating shall not be exceeded for stringing lines, pulling lines, sock connections, and all load-bearing hardware and accessories.
- H. Pulling lines and accessories shall be inspected regularly and replaced or repaired when damaged or when dependability is doubtful.
- I. Conductor grips shall not be used on wire rope unless designed for this application.
- J. While the conductor or pulling line is being pulled (in motion) employees shall not be permitted directly under overhead operations.
- K. A transmission clipping crew shall have a minimum of two structures clipped in between the crew and the conductor being sagged. When working on bare conductors, clipping and tying crews shall work between grounds at all times.
- L. Except during emergency restoration procedures, work from structures shall be discontinued when adverse weather (such as high winds or ice) makes the work hazardous.
- M. Stringing and clipping operations shall be discontinued during the progress of an Electrical storm in the immediate vicinity.
- N. Reel handling equipment, including pulling and braking machines, shall have ample capacity, operate smoothly, and be leveled and aligned in accordance with the manufacturer's operating instructions.
- O. Reliable communication between the reel tender and the pulling rig operator shall be provided.

- P. Each pull shall be snubbed or dead-ended at both ends before subsequent pulls.
15. Stringing Adjacent to Energized Lines
- A. Prior to stringing parallel to an existing energized transmission line, a competent determination shall be made to ascertain whether dangerous induced voltage buildups will occur, particularly during switching and ground fault conditions.
  - B. When there is a possibility that such dangerous induced voltage may exist, the foreman shall comply with the provisions of this written program.
  - C. When stringing adjacent to energized lines the tension stringing method or other methods which preclude unintentional contact between the lines being pulled and any employee shall be used.
  - D. All pulling and tensioning equipment shall be isolated, insulated, or effectively grounded.
  - E. A ground shall be installed between the tensioning reel setup and the first structure in order to ground each bare conductor, sub conductor, and overhead ground conductor during stringing operations.
  - F. The grounds shall be left in place until conductor installation is complete.
  - G. The grounds shall be removed as the last phase of aerial cleanup.
  - H. Except for moving type grounds, the grounds shall be placed and removed with a hot stick.
16. Underground Lines
- A. Appropriate warning signs shall be promptly placed when covers of manholes, handholds, or vaults are removed. What an appropriate warning sign is dependent upon the nature and location of the hazards involved.
  - B. If work involves manholes or vaults more than 4 feet in depth, consult the Wilkinson Electric 19.1 Confined Space Program.
  - C. During excavation or trenching, in order to prevent the exposure of employees to the hazards created by damage to dangerous underground facilities, efforts shall be made to determine the location of such facilities (calling in locates) and work conducted in a manner designed to avoid damage.
  - D. Trenching and excavation operations shall comply with OSHA regs. 1926.651 and 1926.652.
  - E. When underground facilities are exposed (electric, gas, water, telephone, etc.) they shall be protected as necessary to avoid damage.
  - F. When multiple cables exist in an excavation, the cable to be worked on shall be identified by electrical means unless its identity is obvious by reason of distinctive appearance.
  - G. Before cutting into a cable or opening a splice, the cable shall be identified and verified to be the proper cable.
  - H. When working on buried cable or on cable in manholes, metallic sheath continuity shall be maintained by bonding across the opening or by equivalent means.
17. Construction of Energized Substations
- A. When construction work is performed in an energized substation, authorization shall be obtained from the designated, authorized person before work is started.
  - B. When work is to be done in an energized substation, the following shall be determined.
    - I. What facilities are energized, and
    - II. What personal protective equipment and precautions are necessary for the safety of personnel.
    - III. That two or more employees are present before work can begin.
  - C. Barricades or barriers shall be installed to prevent accidental contact with energized lines or equipment.
  - D. Where appropriate, signs indicating the hazard shall be posted near the barricade or barrier.
  - E. Work on or adjacent to energized control panels shall be performed by designated employees.
  - F. Use of vehicles, gin poles, cranes, and other equipment in restricted or hazardous areas shall at all times be controlled by designated employees.
  - G. All mobile cranes and derricks shall be effectively grounded when being moved or operated in close proximity to energized lines or equipment, or the equipment shall be considered energized.
  - H. When a substation fence must be expanded or removed for construction purposes, a temporary fence affording similar protection when the site is unattended, shall be provided. Adequate interconnection with ground shall be maintained between temporary fence and permanent fence.
  - I. All gates to all unattended substations shall be locked, except when work is in progress.
18. Lineman's body belts, safety straps, and lanyards
- A. Hardware for lineman's body belts, safety straps, and lanyards shall be drop forged or pressed steel and have a corrosive resistive finish. Surfaces shall be smooth and free of sharp edges.
  - B. All buckles shall withstand a 2,000-pound tensile test with a maximum permanent deformation no greater than one sixty-fourth inch.
  - C. D rings shall withstand a 5,000-pound tensile test without failure. Failure of a D ring shall be considered cracking or breaking.

- D. Snap hooks shall withstand a 5,000-pound tensile test without failure. Failure of a snap hook shall be distortion sufficient to release the keeper.
  - E. The cushion part of the body belt shall:
    - I. Contain no exposed rivets on the inside.
    - II. Be at least three inches in width.
    - III. Be at least five-thirty seconds inch thick, if made of leather.
    - IV. Have pocket tabs that extended at least 1 ½ inches down and three inches back of the inside of circle of each D ring for riveting on pliers or tool pockets. One shifting D belts, this measurement for pocket tables shall be taken when the D ring section is centered.
  - F. A maximum of four tool loops shall be so situated on the body belt that four inches of the body belt in the center of the back, measuring from D ring to D ring, shall be free of tool loops, and any other attachments.
  - G. Testing of lineman's safety straps, body belts and lanyards shall be in accordance with the following procedures:
    - I. Attach one end of the safety strap or lanyard to a rigid support, the other end shall be attached to a 250-pound canvas bag of sand;
    - II. Allow the 250-pound canvas bag of sand to free-fall 4 feet for (safety strap test) and 6 feet for (lanyard test); in each case stopping the fall of the 250-pound bag.
    - III. Failure of the strap or lanyard shall be indicated by any breakage, or slippage sufficient to permit the bag to fall free of the strap or lanyard.
    - IV. The body belt assembly shall be tested using the same method.
19. Program Review shall be at least once a year.

**TRAINING**

1. Only those employees WHO shall be Authorized to engage in this type of work shall receive training.
2. Awareness training shall be provided to all affected employees

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

No applicable forms at this time



## Ladder and Stairway Safety Program

### PROGRAM STATEMENT

It is the policy of Wilkinson Electric to insure the safety of all employees who use any type of ladder and stairway to perform their work.

### DEFINITIONS

1. Cleat is a ladder crosspiece of rectangular cross section placed on edge upon which a person may step while ascending or descending a ladder.
2. Competent Person is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who are authorized to take prompt corrective measures to eliminate the hazards or remove the employee from the hazardous condition.
3. Double-Cleat Ladder is a ladder with a center rail to allow simultaneous two-way traffic for employees ascending or descending.
4. Failure is a load refusal, breakage or separation of components.
5. Fixed Ladder is a ladder that cannot be readily moved or carried because it is an integral part of a building or structure.
6. Handrail is a rail used to provide employees with a handhold for support.
7. Job-Made Ladder is a ladder that is fabricated by employees, typically at the construction site; non-commercially manufactured.
8. Load Refusal is the point where the structural members lose their ability to carry the load.
9. Point of Access are all areas used by employees for work-related passage from one area or level to another.
10. Portable Ladder is a ladder that can be readily moved or carried.
11. Riser Height is vertical distance from the top of a tread or platform/landing to the top of the next higher tread or platform/landing.
12. Side-Step Fixed Ladder is a fixed ladder that requires a person to get off at the top to step to the side of the ladder side rails to reach the landing.
13. Single-Cleat Ladder is a ladder consisting of a pair of side rails connected by cleats, rungs or steps.
14. Stair Rail System is a vertical barrier erected along the unprotected sides and edges of a stairway to prevent employees from falling to lower levels.
15. Temporary Service Stairway is a stairway where permanent treads and/or landings are to be filled in at a later date.
16. Through Fixed Ladder is a fixed ladder that requires a person getting off at the top to step between the side rails of the ladder to reach the landing.
17. Tread Depth is a horizontal distance from front to back of a tread, excluding nosing, if any

### RESPONSIBILITIES

1. Employee
  - A. Shall attend and participate in all safety training and awareness exercises
  - B. Shall adhere to all program requirements
  - C. Inspect ladders prior to use
  - D. Read all labels and choose the right tool for the job
  - E. May not alter or modify a ladder unless it is in accordance with Manufacturers recommended use.
2. Supervisor
  - A. Shall ensure all employees who use ladders are trained in ladder selection and safe use
  - B. Shall require and enforce ladder inspections
  - C. Shall have all damaged or defective ladders removed from site
3. Competent Person
  - A. Shall perform a periodic visual inspection

**PROGRAM REQUIREMENTS**

1. Safe Work Practices
  - A. A stairway or ladder must be provided at all worker points of access where there is a break in elevation of 19 inches (48 cm) or more and no ramp, runway, embankment, or personnel hoist is provided.
  - B. When there is only one point of access between levels, it must be kept clear to permit free passage by workers. If free passage becomes restricted, a second point of access must be provided and used.
  - C. When there are more than two points of access between levels, at least one point of access must be kept clear.
  - D. All stairway and ladder fall protection systems required by these rules must be installed and all duties required by the stairway and ladder rules must be performed before employees begin work that requires them to use stairways or ladders and their respective fall protection systems.
  - E. Use only approved construction grade ladders.
  - F. Employees will be trained in ladder & stairway safety on an on-going basis.
  - G. Before using, inspect each ladder for defects such as cracked side rails or rungs, broken rungs, etc. and stairways are fully functional for use.
  - H. Metal ladders or ladders with metal side railings are prohibited.
  - I. Never use a defective ladder.
  - J. When defective ladders are found, attach a "danger do not use" tag and immediately remove defective ladders from the work area; defective ladders are to be destroyed as soon as possible.
  - K. All Ladders shall be used per manufacturers' recommendations.
  - L. Maintain clean work areas
  - M. Ensure adequate lighting is available when working in dark hallways, corridors, stairwells, or where permanent lighting has not been established.
2. Inspection
  - A. The Supervisor must require and enforce that each employee inspect their ladder each day before each use looking for signs of wear, misuse, abuse, deterioration, etc. The inspection should include rungs, cleats, rails, hooks, hinges, and tie-off ropes.
  - B. A visual inspection shall be completed on each ladder before use.
  - C. All employees are responsible to ensure that all ladders remain free of defects.
  - D. The use of ladders with broken or missing rungs, broken or split side rails, or other faulty or defective construction is prohibited.
    - I. Ladders with defects will be tagged with a "Danger Do Not Use" tag and removed from service immediately.
    - II. The ladder must be removed from the jobsite or destroyed.
    - III. No one is allowed to take a damaged ladder that has been tagged and removed from service as damaged home.
    - IV. The damaged ladder must be cut up and destroyed.
3. Compliance Requirements
  - A. Ladder Use and Care
    - I. Step/Platform ladders will be used to provide an elevated work platform and straight ladders to provide access to another work level.
    - II. Portable ladders must be placed on a substantial level base, and the area around the top and bottom of the ladder shall be kept clear of debris and material.
    - III. Ladder is to be free of oil, grease, and other slip hazards.
      - 1) Be sure that shoes are not greasy, muddy, or slippery before climbing.
    - IV. Always use three points of contact while ascending or descending a ladder.
      - 1) Employees must face ladder when ascending or descending and use both hands as part of the three-point contact rule.
    - V. Select the correct length ladder for the task.
    - VI. Place portable ladders so that both side rails have secure footing.
      - 1) Provide solid footing on soft ground to prevent ladder from sinking or sliding.
    - VII. Only one employee may work from a ladder at one time.
      - 1) If work requires two employees, a second ladder must be used.
      - 2) If material must be handled, use a rope to hoist tools or material.
    - VIII. If a ladder is to be placed where the opening of the door may displace it, the door must be locked or otherwise guarded (i.e., signage, barricaded, use of personnel).
    - IX. Keep your body centered on the ladder do not reach further than an arm length from ladder.
    - X. Keep your belt buckle between the legs of the ladder.
    - XI. Care should be taken while handling large ladders to prevent injuries and building damage. If the ladder is longer than 12 ft have a second person assist



- XII. Employees must face the ladder at all times, with both feet inside the ladder rails.
- XIII. Always secure a ladder to vehicle using actual "tie-down" straps.
  - 1) Other material, such as Romex, is strictly prohibited.
  - 2) When storing ladders similar straps shall be used to secure the ladders
- B. Prohibited Ladder Use
  - I. Never use ladders exposed to fire or corrosive materials.
  - II. Never overload a ladder; include the weight of tools and materials with body weight.
  - III. Ladders must not be painted. They can be treated only with a transparent non-conductive material and be kept free from dirt or materials that could conceal defects.
  - IV. Never slide down a ladder or jump off.
  - V. Do not leave placed ladders unattended unless properly secured.
  - VI. Never use a portable stepladder as a straight ladder by closing it and leaning it against a structure.
  - VII. Never "loan" an Wilkinson Electric ladder to another contractor or borrow a ladder from another contractor.
  - VIII. Never lean a ladder against unsafe backing such as loose boxes or barrels.
  - IX. Do not extend, move, shift or adjust ladders while in use.
    - X. Ladders must not be placed in a horizontal position and used as a runway or scaffold.
    - XI. Do not "walk" a ladder. Get down and move the ladder as work progresses.
- C. Ladder Use Fall Protection
  - I. Employees must not anchor (tie-off) personal fall protection to portable ladders.
  - II. Structural components of fixed ladders may be utilized for personal fall protection only when determined by the Competent Person to meet the anchorage requirements (5000 lbs.) of fall protection.
  - III. Working Near Guardrails
    - A. Refer to the Fall Protection and Prevention Program
    - B. Employees must use fall protection when working on a ladder if the distance to the guardrail is equal to or less than the height of the ladder including the workers height, ex. 10ft ladder and 8ft to the guardrail.
    - C. If the work is near a guardrail or fall hazard, it is recommended to set the ladder up with the rungs facing (parallel to) the guardrail.
    - D. If you do experience a fall toward the guardrail and the fall hazard, the ladder will prevent you from falling in the direction of the hazard.
    - E. If the ladder is tipped to one side and you experience a fall, you will fall parallel to the guardrail.
- D. Stairways
  - I. Metal stairway landings & pans must be filled prior to use.
  - II. Stairways must be free of obstructions, spills and protections.
  - III. Stair-rails, Handrails or Guardrails must be fully installed prior to use.
  - IV. Stairways must be free of obstructions, spills and protections.
  - V. Stair-rails, Handrails or Guardrails must be fully installed prior to use.
- 4. Straight Ladders (Portable / Extension Ladders)
  - A. Employees cannot work higher than the third (3) rung from top on straight or extension ladders.
  - B. Straight and extension ladders require non-skid feet.
    - 1. Straight ladders cannot be used unless equipped with non-slip base.
  - C. The rungs and steps of portable metal ladders must be corrugated, knurled, dimpled, coated with skid-resistant material, or treated to minimize slipping.
  - D. The minimum clear distance between side rails for all portable ladders must be 11.5 inches (29 cm).
  - E. Ladders must be placed so the distance from the foot of the ladder to the base of the wall or other support is one-fourth the working length of the ladder 4/1 rule.
  - F. Portable ladders must be tied at the top and / or anchored at the bottom to prevent displacement.
  - G. Ladders must be extended at least 36 inches (four rungs) above the landing when used for access to elevated positions.
- 5. Step Ladders
  - A. Wilkinson Electric ladders will be rated for no less than 250lbs – "Type I" Heavy Duty Industrial Use. The purchases of Type II & Type III ladders are strictly prohibited.
  - B. Employees cannot use the top two steps of a stepladder.
  - C. Stepladders cannot be used as straight ladders.
  - D. Stepladders must be fully open and spreader bars locked open when the ladder is in use.
  - E. The use of platform ladders is strongly recommended and is the preferred tool, instead of step ladders

6. Podium/Platform Ladder

- A. Podium ladder has a built in extra-large standing platform at a fixed height for a 360° standing work area.
- B. Platform ladder is a step ladder with the top step being a platform with a top rail guard 2' above the platform to stabilize the user while working hands-free.



12ft platform ladder

14ft step ladder

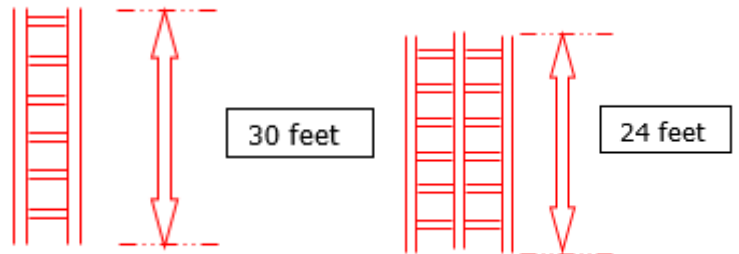
6ft podium ladder

6ft ladder

Platform Ladder	Overall Length	Step Ladder
12 ft	Same As	14 ft
10 ft	Same As	12 ft
8 ft	Same As	14 ft
6 ft	Same As	8 ft
4 ft	Same As	6 ft

7. Job Made Ladder

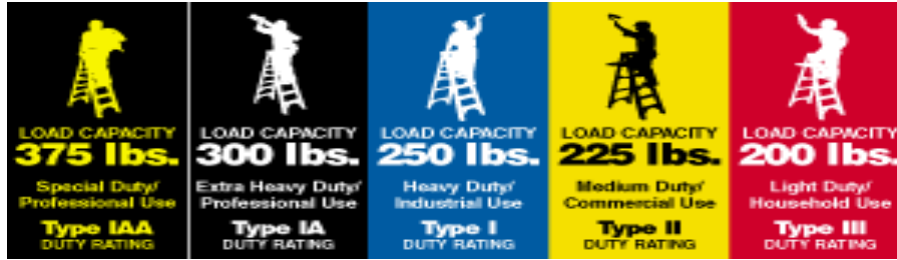
- A. Single cleat ladders must not exceed 30 feet.
- B. Double cleat ladders must not exceed 24 feet.
- C. The width of single cleat ladders must be at least 15 inches, but not more than 20 inches, between rails at the top.
- D. Side rails must be parallel or flared top to bottom by not more than one-quarter of an inch for each two feet of length.
- E. Cleats must be uniformly spaced, 12 inches top to bottom.
- F. Filler blocks must be used on the rails between the cleats.
- G. The cleats must be secured to each rail with three 10d common wire nails or other fasteners of equivalent strength.



**NOTE:** the above information is not intended to instruct Wilkinson Electric employees how to build Job Made Ladders. It is to aid Wilkinson Electric employees to inspect existing job made ladders to assure the safety of Wilkinson Electric employees.

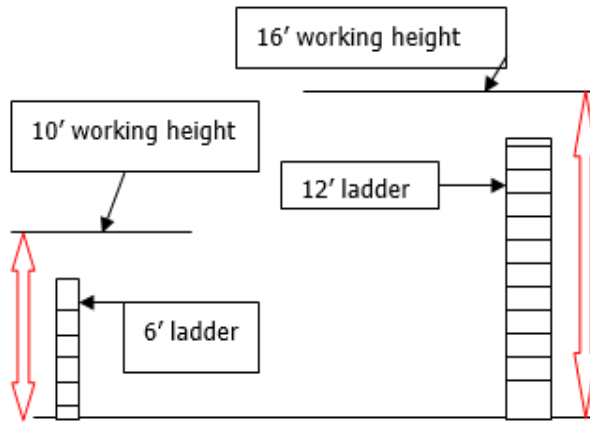
8. Ladder Selection

- A. Load Capacity - Total weight calculations
  - I. Employees Weight
  - II. Tool Weight
  - III. Material Weight
  - IV. Add all weights together for total weight
  - V. The total weight MUST not exceed the load capacity rating of the ladder



(Type II & Type III are prohibited from use)

- B. The ladder load capacity rating is the total weight the ladder will safely handle  
Example: Employee weight 180Lb + tools 40Lb + Material 15Lb = Total Weight 235Lb.  
The minimum load capacity ladder that can be used is a Type I 250Lb duty rating.
- C. Working height vs. Ladder Height



10. Stairways

- A. The following general requirements apply to all stairways used during the process of construction, as indicated:
  - I. Stairways that will not be a permanent part of the structure on which construction work is performed must have landings at least 30 inches deep and 22 inches wide (76 x 56 cm) at every 12 feet (3.7 m) or less of vertical rise.
  - II. Stairways must be installed at least 30 degrees, and no more than 50 degrees, from the horizontal.
  - III. Variations in riser height or stair tread depth must not exceed 1/4 inch in any stairway system, including any foundation structure used as one or more treads of the stairs.
  - IV. Where doors or gates open directly onto a stairway, a platform must be provided that is at least 20 inches (51 cm) in width beyond the swing of the door.
  - V. Metal pan landings and metal pan treads must be secured in place before filling.
  - VI. All stairway parts must be free of dangerous projections such as protruding nails.
  - VII. Slippery conditions on stairways must be corrected. Spiral stairways that will not be a permanent part of the structure may not be used by workers.
- B. The following requirements apply to stairs in temporary service during construction:
  - I. Except during construction of the actual stairway, stairways with metal pan landings and treads must not be used where the treads and/or landings have not been filled in with concrete or other material, unless the pans of the stairs and/or landings are temporarily filled in with wood or other material. All treads and landings must be replaced when worn below the top edge of the pan.
  - II. Except during construction of the actual stairway, skeleton metal frame structures and steps must not be used (where treads and/or landings are to be installed at a later date) unless the stairs are fitted with secured temporary treads and landings.
  - III. Temporary treads must be made of wood or other solid material and installed the full width and depth of the stair.

11. Stairways, Stair-rails and Handrails

- A. Stairways having four or more risers or rising more than 30 inches (76 cm) in height, whichever is less, must have at least one handrail.
  - I. A stair-rail also must be installed along each unprotected side or edge.

- II. When the top edge of a stair-rail system also serves as a handrail, the height of the top edge must not be more than 37 inches (94 cm) nor less than 36 inches (91.5 cm) from the upper surface of the stair-rail to the surface of the tread.
- B. Stair-rails installed after March 15, 1991, must not be less than 36 inches (91.5 cm) in height.
  - I. Stair-rail systems and handrails must be surfaced to prevent injuries such as punctures or lacerations and to keep clothing from snagging
  - II. The height of the top edge of a stair-rail system used as a handrail must not be more than 37 inches (94 cm) nor less than 36 inches (91.5 cm) from the upper surface of the stair-rail system to the surface of the tread.
  - III. The ends of stair-rail systems and handrails must be constructed to prevent dangerous projections such as rails protruding beyond the end posts of the system
- C. Mid-rails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members must be provided between the top rail and stairway steps of the stair-rail system.
  - I. Mid-rails, when used, must be located midway between the top of the stair-rail system and the stairway steps.
  - II. Other intermediate structural members, when used, must be installed so that there are no openings of more than 19 inches (48 cm) wide.
- D. Handrails and the top rails of the stair-rail systems must be capable of withstanding, without failure, at least 200 pounds (890 n) of weight applied within 2 inches (5 cm) of the top edge in any downward or outward direction, at any point along the top edge.
  - I. The height of handrails must not be more than 37 inches (94 cm) nor less than 30 inches (76 cm) from the upper surface of the handrail to the surface of the tread.
  - II. Handrails must provide an adequate handhold for employees to grasp to prevent falls.
  - III. Temporary handrails must have a minimum clearance of 3 inches (8 cm) between the handrail and walls, stair-rails systems, and other objects.
  - IV. Winding or spiral stairways must be equipped with a handrail to prevent using areas where the tread width is less than 6 inches (15 cm).
- E. Screens or mesh, when used, must extend from the top rail to the stairway step, and along the opening between top rail supports.
- F. Intermediate vertical members, such as balusters, when used, must not be more than 19 inches (48 cm) apart.
- G. Unprotected sides and edges of stairway landings must be provided with standard 42-inch (1.1 m) guardrail systems.

**TRAINING**

1. Employer shall ensure employees are trained, as needed
  - A. Recognize hazards related to ladders and stairways and methods to minimize these hazards
  - B. How to select the right ladder for the job intended.
  - C. Nature of fall hazards in the work area.
  - D. Correct procedure for erecting, maintaining, and disassembling the fall protection systems to be used
  - E. Proper construction, use, placement, and care in handling of all stairways and ladders
  - F. Maximum intended load-carrying capabilities of ladders
  - G. OSHA Standard in Subpart X
2. Ladder inspection by a competent person.
3. How to prevent accidents through usage of engineering controls (guardrails, hole covers, door blocking or signage), work practices and use of personal protective equipment.
4. Stairways & Handrails minimum requirements and use
5. Retraining shall occur
  - A. When a lack of proficiency is observed,
  - B. When new equipment is introduced
  - C. When changes or updates are made to the Ladder and Stairway Safety Program or
  - D. When State and/or Federal Standards are updated

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

Not applicable at this time.

## Ladder Inspection

### LADDER INSPECTION

1. All ladders shall be inspected before each use.
2. Ensure the ladder selected is the right tool for the job by checking the labels for Type, capacity rating – weight limit, intended use and conditions

### LADDER MAINTENANCE

A safe ladder includes regular maintenance and minor repairs. Tightening bolts and other fastenings or lubricating moving parts shall be done in accordance to the manufacturer’s instructions. Only authorized repair facilities can make repairs. Defective ladders must be tagged as “Danger Do Not Use” and destroyed. Use all ladders in accordance with the manufacturer’s instructions and never use a ladder for anything other than its intended use.

### LADDER INSPECTION CHECKLIST

LADDER ID	Mon M/D		Tue M/D		Wed M/D		Thu M/D		Fri M/D		Sat M/D		Sun M/D	
<b>ALL LADDERS:</b>	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
<b>Steps or Rungs:</b> Loose, Cracked Bent or Missing														
<b>Rails:</b> Cracked, Bent, Split or Frayed Rail Shields														
<b>Mfg. Labels:</b> Missing or Not Readable														
<b>General:</b> Rust, Corrosion, Oil, Grease, Paint Other														
<b>Other:</b> Bracing, Shoes, Rivets, Foot Pad – Defective														
<b>Moving Parts:</b> Stuck, Squeak or Loose														
<b>Overall Condition:</b> Unstable, Twisted or Warped														
<b>Original Parts:</b> Missing, Poor Repair														
<b>Hardware:</b> Missing, Loose or Broken														
<b>STEPLADDER</b>	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
<b>Pail Shelf:</b> Loose, Bent, Missing or Broken														
<b>Top:</b> Cracked, Loose or Missing														
<b>Spreader:</b> Loose, Bent or Broken														
<b>PLATFORM / PODIUM LADDER</b>	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
<b>Work Platform:</b> Cracked, Bent, Rusted or Broken														
<b>EXTENSION LADDER:</b>	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
<b>Rung Locks:</b> Loose, Bent, Missing or Broken														
<b>Shoes:</b> Non-Slip Worn, Broken or Missing,														
<b>Rope/Pully:</b> Loose, Frayed, Bent, or Broken														
<b>DAMAGED – Unrepairable – Needs “Danger” Tag</b>														
<b>*Free of Defects in Good Condition</b>	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
<b>Damaged ladders shall be tagged “Danger Do Not Use” and removed from project to be destroyed.</b>														
Request New Labels Y or N					Request Repair: Y or N									
<b>Inspected by:</b>					<b>Signature:</b>					<b>Date:</b>				

### Examples of damage or defects that require action







## Fall Prevention and Fall Protection

### PROGRAM STATEMENT

Employees working at an elevation of six (6) feet or more above the ground or next lower level, fall protection must be provided from falls 100% of the time. This policy is applicable to work done while traveling or stationary.

### DEFINITIONS

1. Anchorage: a secure point of attachment such as lifelines, lanyards, or deceleration devices
2. Body Harness: straps that secure about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system
3. Leading edge: the outer edge of a floor, roof or other walking, working surface that is considered unprotected. No guardrail system.
4. Active Fall Protection Systems: Requires some handling and operation by the worker. (donning a body harness, attaching to an anchor point etc.)
5. Positioning device: A system rigged to allow an individual to be supported on an elevated surface, such as a wall, and work with both hands free.
6. Walking/working surface: Any surface, whether horizontal or vertical on which an employee walks or works. Including but not limited to floors, roofs, ramps formwork and structural steel.
7. Work area: A portion of a walking/working surface where job duties are being performed.
8. Passive Fall Prevention Systems: A system that does not require any action from the worker. (Such as donning a body harness attaching to an anchor point or lifeline) They include guardrails, personnel nets, and warning line systems.
9. Competent Person: Employee capable of identifying existing and predictable hazards in surroundings or work conditions which are hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazard or remove the employee from the hazardous condition.
10. Safety trained: An employee trained by a competent person to recognize the hazards associated with fall prevention and protection.
11. Safety monitor: A competent person that is responsible for recognizing and warning workers of fall hazards while in a controlled access zone.

### RESPONSIBILITIES

1. Employee shall
  - A. Participate in training and pass the competency test
  - B. Adhere to all program requirements
  - C. Identify hazards and report unsafe conditions immediately to supervisor
2. Supervisor Responsibilities
  - A. Ensure program compliance
  - B. Ensure all employees attend training prior to starting task that requires fall protection
  - C. Ensure rescue plan is in place.

### PROGRAM REQUIREMENTS

1. General Safety Rules
  - A. Fall Protection, (Personal Fall Arrest Systems, Guardrails, etc.) are an absolute last resort towards Fall Prevention. Engineering controls, such as waiting for the glazing, or permanent handrails to be installed before working near any edges, is preferred. In the event that Fall Protection is necessary, properly built Guardrails are preferred over Personal Fall Arrest Systems, Administrative Controls, Safety Nets and Controlled Access Zones etc.
  - B. The fall prevention guidelines established by Wilkinson Electric require that employees exposed to a potential free fall greater than six (6) feet must receive and implement proper fall prevention methods.
  - C. Employees will only be allowed to perform duties requiring the employee to get closer than six (6) feet to an unprotected edge, platform, or walkway of any building without prevention in place if compliance creates a greater hazard. The Supervisor must authorize such exemptions and approval from the Division Safety Manager is required.

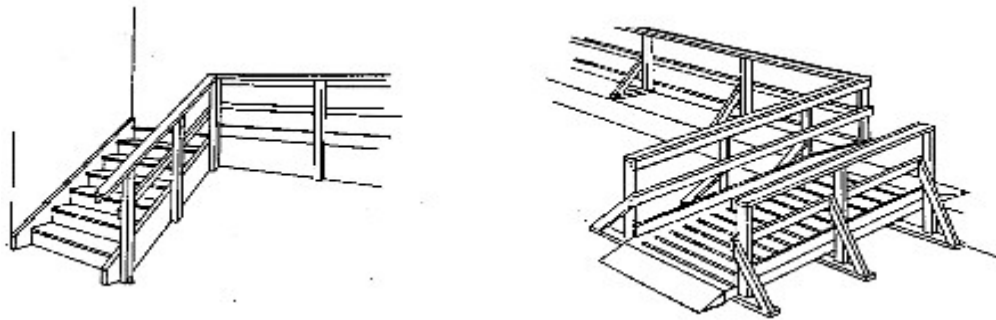
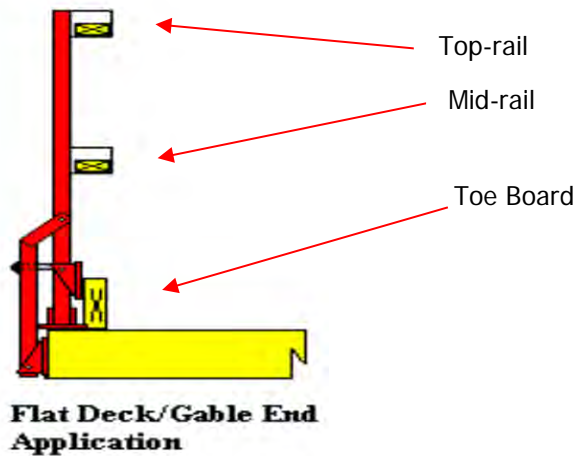
- D. Employees are not to step across any elevated opening greater than 12 inches when that opening is elevated 6 feet or more above a walking/working surface.
  - E. Employees are not to enter a work area where a fall potential greater than six (6) feet exists unless fall protection or fall prevention is in place and training is completed in the recognition of fall hazards. Employees unable to enter assigned work areas due to a fall hazard must immediately report the condition to the Supervisor.
  - F. The Supervisor or Competent Person is responsible to select the appropriate method, of fall protection. The Competent Person must first attempt to use a passive form of fall prevention before selecting an active fall protection system.
  - G. All floor openings must be protected by either standard guardrails or by covers.
  - H. Platforms or walkways whether permanent or temporary, that are four (4) feet or more above adjacent floor or ground level, must be protected by a standard guardrail.
  - I. All flights of stairs with 4 or more risers must have well-braced handrails on both sides.
  - J. Do not ride the hook/ball of a crane.
  - K. Do not ride the load of a crane or forklift.
  - L. Do not ride the forks on forklifts.
  - M. Use a safe means of access to the work area.
  - N. Immediately replace guardrail systems (or portions thereof) removed during the course of work to facilitate hoisting, landing material, etc.
  - O. Excavations with a depth greater than four (4) feet must have a barricade, guardrail or fence installed.
  - P. Minimum requirements of a personal fall protection system consist of:
    - I. An anchorage point body harness
    - II. lanyard with a deceleration device It must have minimum static load strength of 5000 lbs.
2. Fall protection begins with the recognition of the hazard. Fall prevention planning begins prior to the start of a project or task.
- A. Fall prevention: (Passive) A system that does not require any action from the employee, (such as donning a body harness and attaching to any anchor point) they include guardrails, warning line systems and personnel nets. Fall prevention as defined, eliminates the potential for exposure to a fall. For this reason, it is preferred over fall protection devices and should be the first choice for eliminating exposure to fall hazards. Fall prevention devices include:
    - I. Layout and arrangement of tools, material and equipment.
    - II. Identify aisles, passageways, entrances, exits, and insure these are maintained free of obstructions and tripping hazards.
    - III. Insure proper illumination.
    - IV. Addressing inclement weather conditions (rain, sleet, snow, ice, mud).
    - V. Good housekeeping is the key to the prevention of same level falls.
      - 1) Unusable and waste material must be stored in designated areas out of passageways and shall not be allowed to accumulate in the work area or around worktables, desks, threading machines, etc. as to cause a hazard.
      - 2) Surfaces must be kept free of slipping hazards (grease, oil, chemicals, metal shavings, etc.)
      - 3) Floor holes and openings shall be covered and secured as not to create a tripping hazard.
    - VI. Attempts must be made to maintain even floor surfaces.
    - VII. Electrical cords, welding leads, hoses, etc. must be elevated or so positioned as not to cause a tripping hazard.
    - VIII. Excavations deeper than 4 feet must be protected from falling by guardrails, fences, or barricades.
  - B. Guardrails. Approved guardrails act as a barrier to the fall exposure.
    - I. It consists of a top-rail, mid-rail, and a toe board.
    - II. Standard protection against falls is the assurance that adequate guardrails, handrails, mid-rails and toe boards are installed on all work surfaces including platforms, scaffolds. Etc.
    - III. Passive fall protection must be used as designed by the manufacturer.
    - IV. Employees are not permitted to stand on guardrail systems.
    - V. Attempts must be made to either install permanent guardrails or install temporary guardrails on or around surfaces that are four feet above the floor level.
    - VI. Guardrail specifications
      - 1) Top Rail Capable of 200 lbs. of force with less than 3 inches deflection with no permanent deformation. Should be 42 inches high but can be no less than 39 inches high and no more than 45 inches high.



- 2) Mid-Rail Capable of 150 lbs. with no permanent deformation Maximum opening 19 inches between rails
  - a) Wood At least 2" by 4" top-rail At least by 6" mid-rail on 8-foot maximum centers Minimum 1500-psi construction grade lumber
  - b) Pipe 1.5" Outside diameter on 8-foot maximum centers
  - c) Steel 2" by 2" by 3/8" angle iron on 8-foot maximum centers
  - d) Wire Rope 3/8" diameter cable stretched taut - less than 3-inch deflection. Flagged at 6-ft. intervals with high visibility material.



3) Example of Guardrails



Handrails

C. Stair rails specifications

- I. Stairways having four (4) or more risers or more than 30 inches shall be equipped with handrails.
- II. Handrails Capable of 200 Lbs. Force with less than a 2-inch deflection with no deformation, the height will be no more than 37 inches nor less than 30 inches from the upper surface of the handrail to the surface of the stair tread. And a three (3) inch clearance between the handrail and other objects.
- III. Mid-rails Will be located at a height midway between the top rail surface and the stairway steps.

3. Safety nets: A system designed to provide protection around an elevated work area where a fall hazard exists. The net is designed to catch a person before he/she hits the ground or other objects.
  - A. Safety net system - used when employees are more than 25 feet above the ground, water surface or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines or a safety harness is impractical.
    - I. Only nets designed by the manufacturer as fall protection nets may be used.

- II. They must be installed in accordance with all manufacturer requirements, as close to the work level as possible and extend outward from the surface.
- III. Nets may have maximum 6" by 6" openings and must be either certified by a qualified person or pass a 400-lb. drop test: prior to use, whenever relocated, after repair and every 6 months if left in place.
- IV. A Competent Person must inspect nets in use at least weekly for wear, damage, and deterioration.
- V. Inspections must be documented.
- VI. Nets will be installed as close to the work surface as possible but no more than thirty (30) feet below the working level.

Typical Personnel Safety Net System	
Vertical distance from work surface to netting	Minimum required horizontal distance from the edge of the work surface
0 to 5 feet	8 feet
5 to 10 feet	10 feet
10 to 30 feet	13 feet



4. Hole: A gap or void two (2) inches or more in diameter in a floor, roof, or other walking or working surface.

A. Hole Covers. Hole or floor opening covers must be strong enough to support at least twice the maximum intended load and must be installed and secured in a manner that prevents their accidental displacement or removal.

I. Hole or floor opening covers must also be clearly marked:

B. Hole cover specifications

I. All covers shall be capable of supporting without failure at least two times the intended load imposed by workers, material, or equipment.

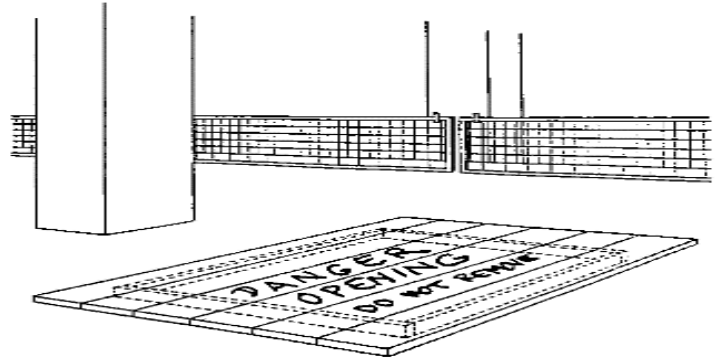
C. Fall Protection (Active) a system designed to limit a person's vertical free fall to six (6) feet or restrict a person's travel so that no leading edges are reachable in any direction and requires some handling and operation by the worker.

I. Employees working from elevated positions with less than a 6-foot fall hazard, but above dangerous equipment or conditions, must be protected from falling onto the hazard by fall protection.

II. Limit the fall distance. The fall distance begins and is measured from the level of a workstation on which an Employee must initially step and where a fall hazard exists. It ends with the greatest distance of possible continuous fall, including steps, openings, projections, roofs, and direction of fall.

III. Limit the distance of travel so that the employee is unable to reach a fall hazard.

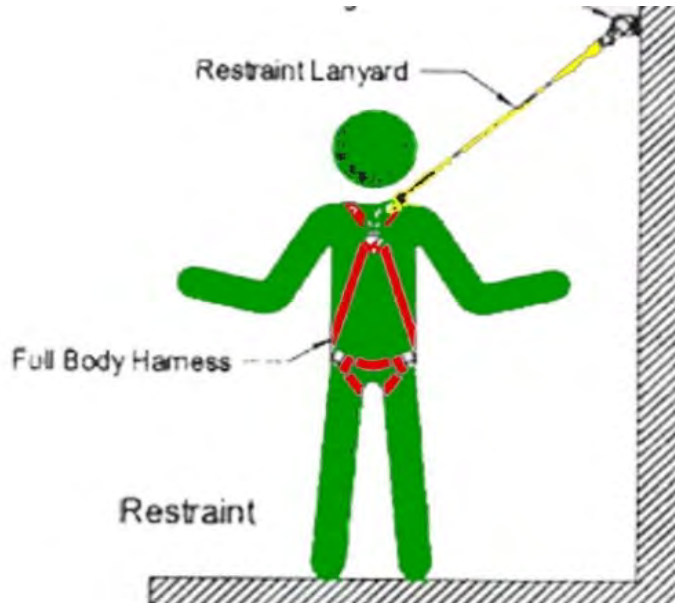
**"Danger - Hole Cover - Do Not Remove" or "Hole" or "Cover"**



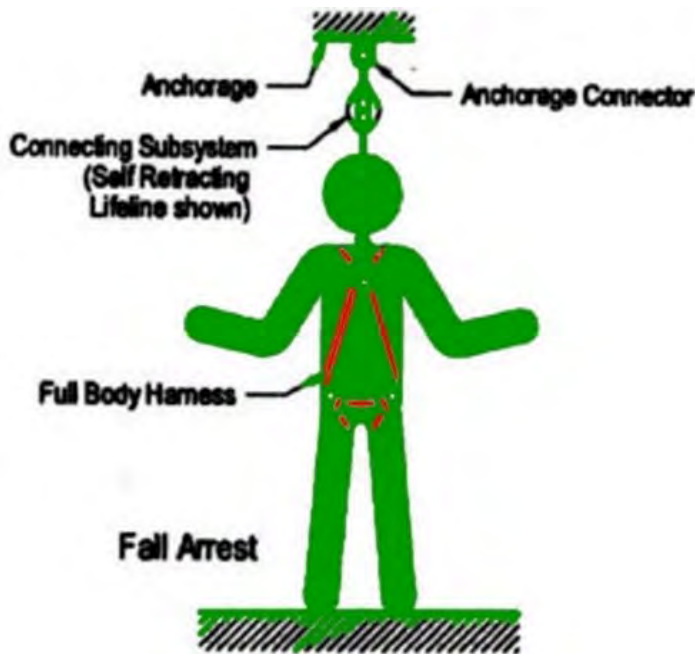
5. Active fall protection equipment will not work by itself and must be connected to the individual to be protected.

A. Personal fall arrest system - a means to prevent injury to an employee that has fallen from a work level. It consists of an anchorage point, connectors, and a body harness, lanyard, and deceleration device. Employees using the personal fall protection system must be secured to an anchorage point 100% of the time during an exposure of 6 feet or more.

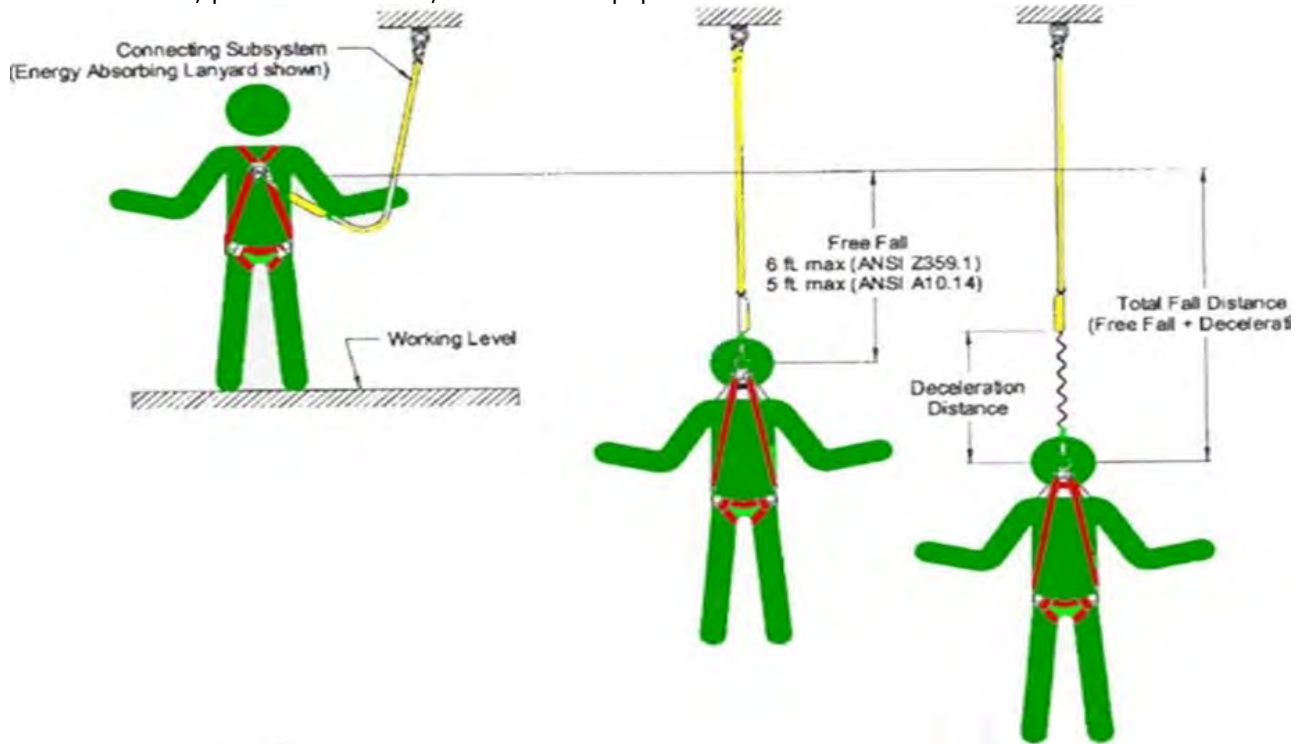
- B. Restraint lines are designed to limit travel so that no fall hazard area is reachable in any direction of movement. Restraint lines and their anchorage points must be capable of supporting at least 3,000-lbs. tensile load.



- 6. Fall Protection (Fall Arrest)
  - A. Only fall protection equipment approved and identified and listed in this section will be used.
  - B. All fall protection equipment must be inspected prior to each use and must be maintained in good working order at all times. Equipment or components found to be defective must be immediately removed from service red tagged and returned to the Safety Manager.
  - C. Fall protection equipment is for fall protection use only and is not to be used for any other purpose such as positioning.
  - D. All components of personal protection; i.e. harnesses, lanyards, anchorage, lifelines and connectors must have minimum break strength of 5000 pounds.
  - E. Any equipment that is used as part of a fall protection system but could also be used for other activities (such as slings, chokers, carabineers, etc.) must be tagged, identified, or otherwise controlled and used only as part of a fall protection system. Equipment manufactured for uses other than fall protection, must be evaluated and approved by the Safety Manager prior to incorporating them as part of a fall protection system.



- F. All fall protection equipment must be designed, purchased and used in accordance with this procedure and all applicable manufacturer and regulatory requirements.
- G. In "hot-work" operations or those involving chemicals or other factors that could cause damage, fall protection equipment must be designed and/or protected to avoid burning or deterioration.
- H. Task specific procedures to rescue employees in the event of a fall must be in place before using a fall arrest system.
- I. Distance Requirements:
  - I. A fall protection system must not allow for more than a 6-foot free fall.
  - II. The fall protection system must be used and secured in a fashion so that the user cannot contact the next lower level should a fall occur. This includes:
    - 1) Free Fall Distance, plus
    - 2) Deceleration Device/Shock
    - 3) Absorbers, plus free fall
- 7. Restraint Lines: A body harness, anchor point, and restraint line used to limit the individual's travel that will not allow the person to be exposed to a vertical fall.
  - A. Employee height (distance from anchor point to D-ring) Capable of 3000 lb. tensile load and limit travel so that no edges are reachable in ANY direction
- 8. Use of Fall Protection Equipment
  - A. Full Body Harness: A system of straps, buckles and attachment points that covers the torso.
  - B. An approved full body harness must be used as protection against falls to a lower level when guardrails or other Division-approved fall prevention means cannot be utilized.
  - C. Full body harnesses must also be worn and properly secured to an overhead object capable of supporting five thousand pounds. A full body harness must also be worn and secured when Employees are working from aerial lifts, personnel baskets, and similar equipment.



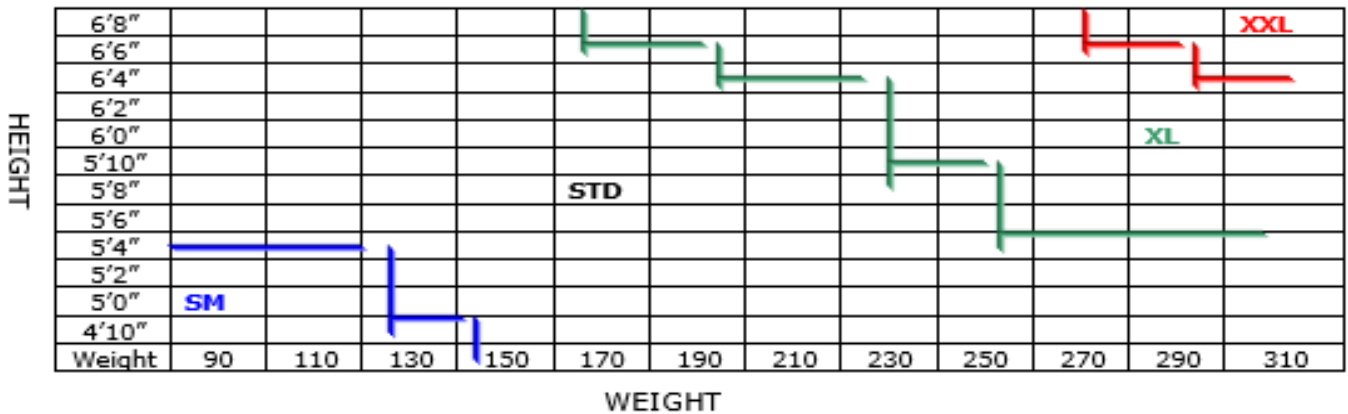


- D. Full body harnesses must fit and be worn properly with the straps tucked so as not to get caught on equipment or otherwise cause a hazard. Chest straps must be worn between the chest and collarbone, with the rear D-ring being worn between the shoulder blades.
- E. Full body harnesses used on Wilkinson Electric projects must, at a minimum, be equipped with a "D"-ring located in the center of the back. Additionally, some harnesses come equipped with various "D"-rings whose use is based on their location:
  - I. Back - general fall protection use
  - II. Front - used with climbing systems
  - III. Side - positioning devices only, not to be used as fall protection
  - IV. Shoulder - rescue line attachment.



Full body harness positioned properly on the body

BODY HARNESS SIZE & WEIGHT CHART	
IMPORTANT: Heavy Clothing will affect the fit of a full body harness. FEDERAL REGULATIONS PROHIBITS: Any worker whose total combined weight (body weight and tool weight) that exceeds <b>310 lbs.</b> from using this equipment	



- 9. Snap hooks: A self-closing self-locking hook shaped member that can be opened to receive an object.
  - A. Only self-closing, self-locking snap hooks are allowed for fall protection on Wilkinson Electric projects
  - B. Snap hooks must open and close properly and be fully closed around their anchorage point.




Typical self-closing, self-locking snap hooks

- 12. Anchorage Points: A secure point of attachment for lanyards, lifelines, or deceleration devices with minimum load strength of 5000 pounds
  - A. Anchorage points must be capable of supporting at least a 5,000-lb. load per person, or a safety factor of 2 designed by a qualified person. They should be independent of the work surface when possible.
  - B. The anchorage point should be at least as high as the harness "D"-ring and preferably higher to minimize free fall distance. Keep in mind, there can be no more than a six-foot free fall.
  - C. When workers are working out of a spider basket, the lifeline and the basket support line must be connected to separate structures.  
Minimum Requirements for concrete drop in anchors

Concrete P.S.I.	Anchor Diameter	Embedment Depth	Spacing Requirements	Torque Foot Pounds
2000	5/8 inch	2-1/2 inches	12 inches	154
3000	5/8 inch	2-1/2 inches	12 inches	154
4000	1/2 inch	2 inches	12 inches	78
6000	1/2 inch	2 inches	12 inches	78

Performance table is based on Red Head (Multi-Set II) RM or RL carbon or SRM-18-8 S.S. or SSRM-316 S.S. anchors

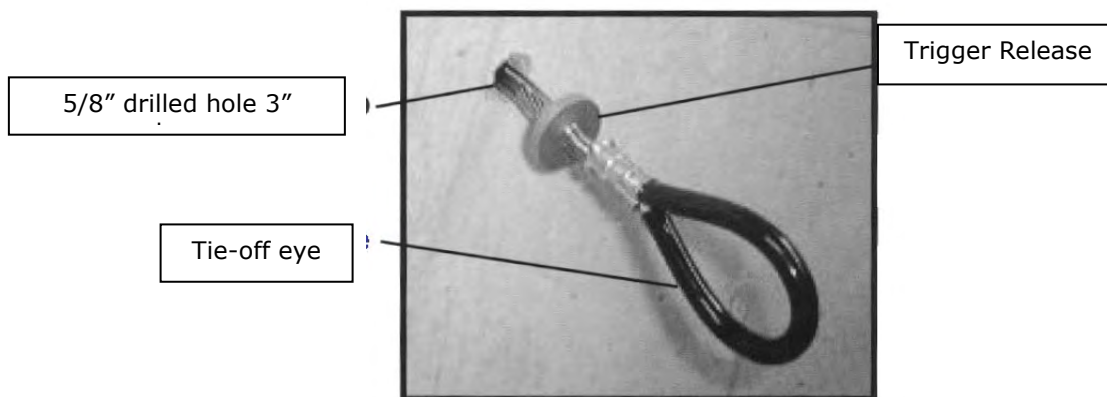
Bolt torque and grade Specifications are SAE "5 "



**WARNING**

Failure to read and follow instructions on the use of this product could result in serious personal injury. This product must be used in strict compliance with Local, State, & Federal OSHA Regulations. Be safety conscious.

Manufactured anchoring devices



Reusable Anchor Point For 4000 psi Concrete Applications



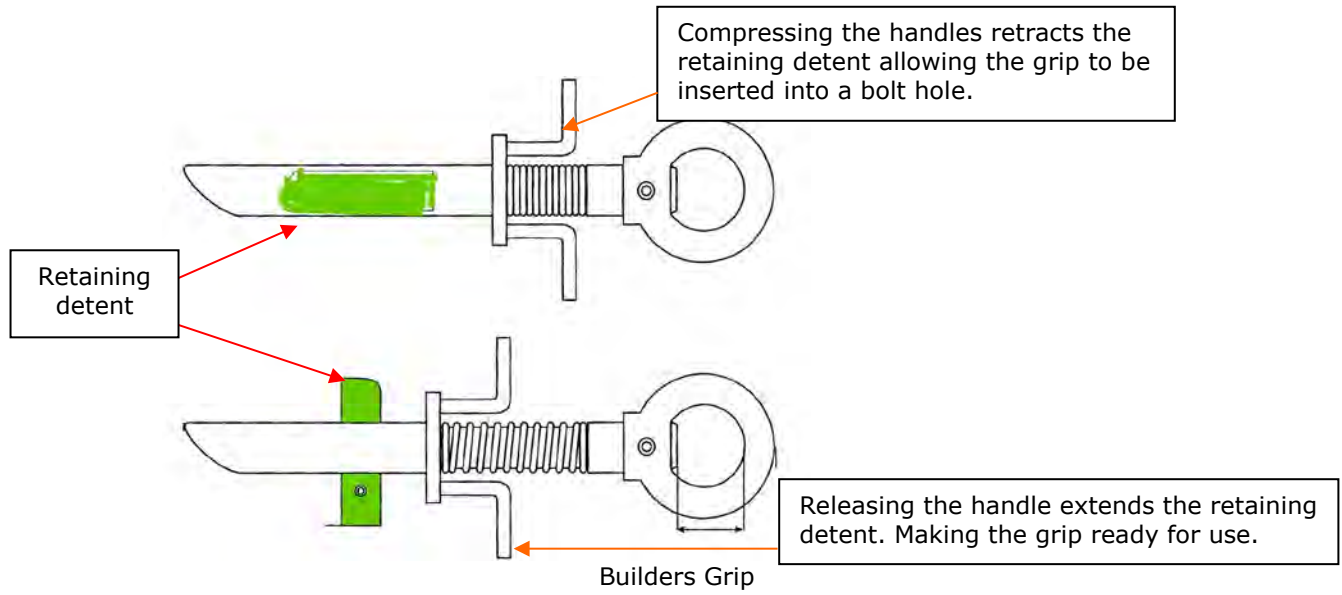
D-Bolt anchorage

This attachment device can be used with a 1/2" drop-in anchor or bolted through structural steel Manufactured Horizontal and vertical structural beam clamp



**Web-strap anchor sling**

Ideal anchor points for structural steel beams and concrete columns.

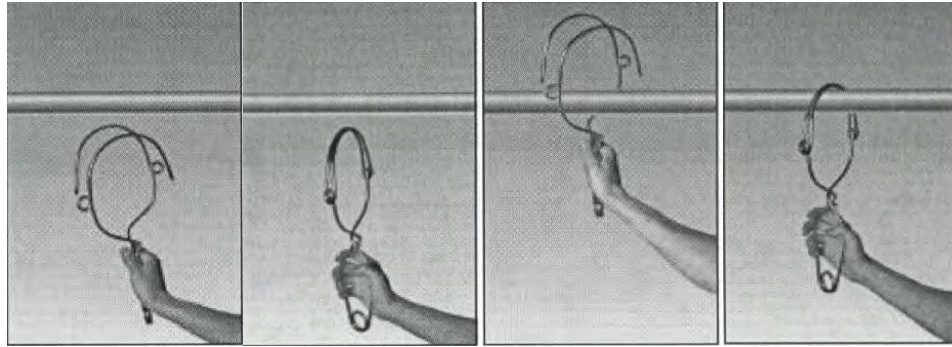


Designed to connect through structural steel flange boltholes from 3/4" to 7/8" in diameter

**Continuous Insert Anchor Device**

This unit is designed to be used with 1-5/8" unistrut, either poured in place or mechanically fastened overhead.





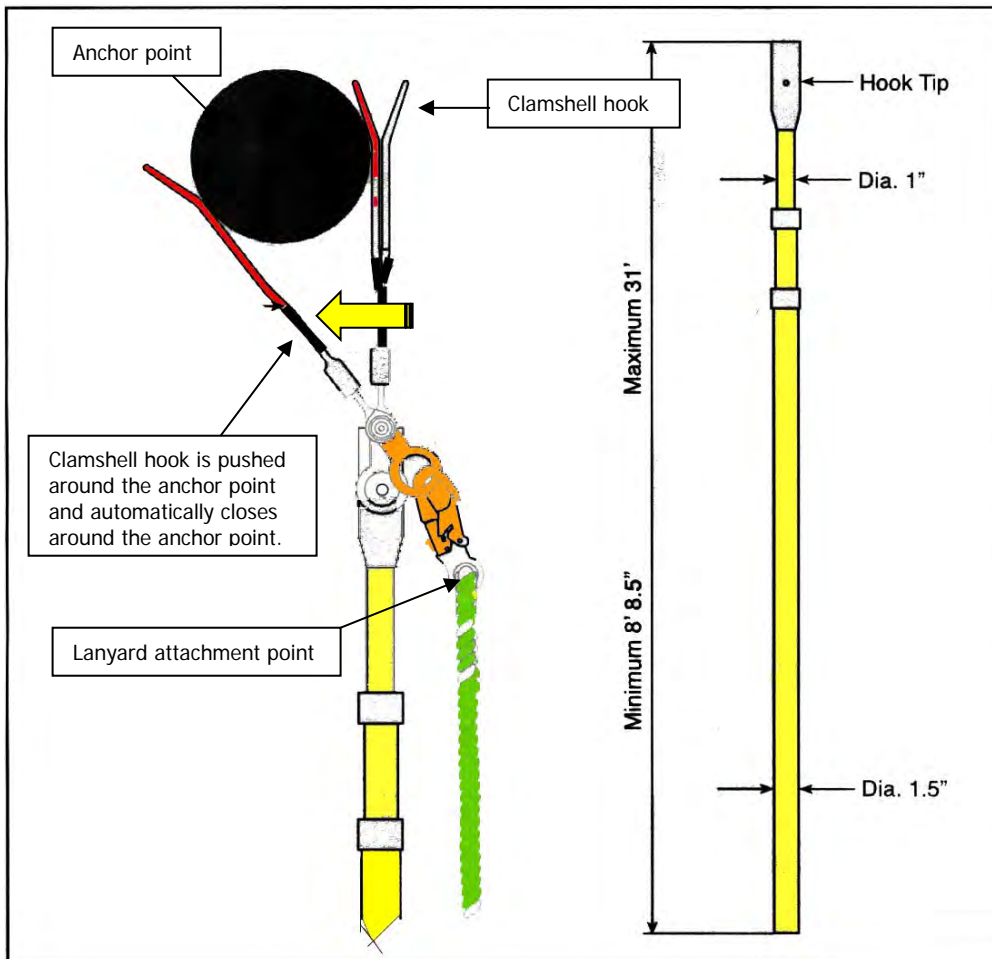
**Handgrip**

The handgrip is an easy open and close unit. Will accommodate a wide Variety of anchorage point sizes and configurations from 2" through 4" in diameter.

13. Operation of clamshell hook

- A. Attach hook to telescopic pole.
- B. Attach lanyard to clamshell hook.
- C. Extend clamshell hook to anchor point.
- D. Push the clamshell hook over the anchor point.
- E. The clamshell hook automatically closes over the anchor point, the hook is ready to use.
- F. Removal is accomplished by twisting the pole.

This system provides a quick and easy method of attaching a lifeline or retractable line to an anchor point overhead and out of reach. And can accommodate anchorage points up to 5-7/8" in diameter.



First Man Up Clamshell Hook system



14. Deceleration Devices (Shock Absorbers): Rip stitch or specially woven lanyard that tears or deforms which serves to dissipate or limit the energy imposed on an individual during fall arrest.
- A. Shock absorbers are required as part of an overall fall protection system.
  - B. At a minimum, shock absorbers are required as part of fall protection lanyards.



Detachable deceleration device

15. Lanyard: A flexible line of rope, wire, or strap, which generally has connectors at each end and is used to connect the body harness to an anchorage point.
- A. The shortest length lanyard possible should always be used.
  - B. Lanyards must have a maximum length to provide for a free fall distance of no more than six feet.
  - C. Lanyards must be used in conjunction with a shock absorber or shock absorbing system.
  - D. Lanyards must be maintained free of knots.
  - E. Employees may not be attached to the same lanyard.
  - F. Dual or "Y" lanyards are required to achieve 100% fall protection.
  - G. When not in use, the lanyard must be secured in a fashion as to not cause a tripping hazard or become entangled in equipment.

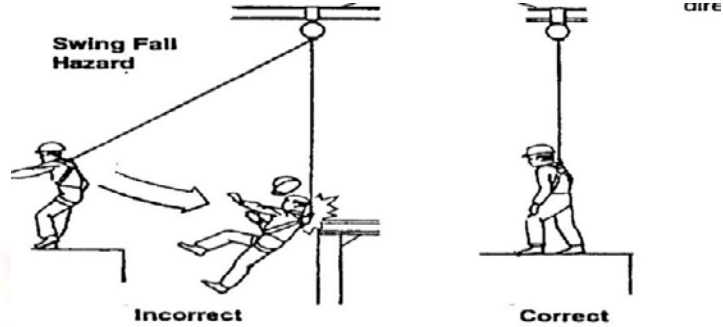


Dual type lanyard with deceleration device for 100% tie off

16. Retractable Devices: A deceleration device containing a drum wound line, which can be extended or retracted from the drum. After the onset of a fall the drum automatically locks to arrest the fall. The extension limit varies from six (6) to three hundred (300) feet.
- A. Retractable devices are designed to arrest a fall within 2 feet.
  - B. Tag lines must be used to prevent the uncontrolled retracting of these devices.
  - C. Retractable devices must be used with the wearer at less than a 45-degree angle from the device to prevent the hazards of a swing fall.
  - D. Only retractable devices bearing current manufacturer certification shall be used. When using retractable lifelines workers should be aware of their position to the anchorage point and stay directly overhead as possible to prevent a swing hazard in case of a fall arrest.



Retractable fall stop device

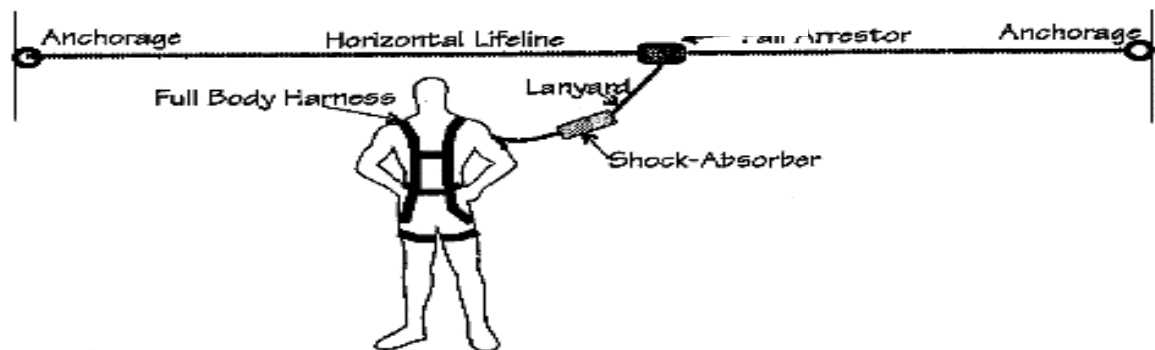


17. Vertical Lifelines: A flexible line with a means of connection each end to an anchor point and serves as a means to connect a personal fall arrest system and allows the individual to move in a vertical direction.
- A. One employee may only use vertical lifelines at a time. Separate vertical lifelines are required for each employee when multiple uses are required.
  - B. Vertical lifelines must be equipped with a formed eye termination at one end for suspension from the anchorage point and must extend below the lowest level of travel.
  - C. The lower end must be either attached to a second anchor point or weighted down to provide stability.
  - D. Grab devices must be compatible with the type and size of rope or cable used and should remain above the shoulders of the user.
  - E. Manufacturer will specify maximum lanyard length for use on their vertical lifelines (usually nine inches). Standard six-foot lanyards are normally not permitted.



Typical vertical rope grab lifeline

18. Horizontal Lifelines: A flexible line with a means of connecting each end to an anchor point and serves as a means to connect a personal fall arrest system to and allows the individual to move in horizontal direction.
- A. Horizontal lifelines must be both designed by a qualified person with a safety factor of at least (2) two or manufactured components erected by competent persons and used in compliance with all manufacturer requirements and safety factors.





Manufactured temporary horizontal lifeline

19. Inspection and Storage
  - A. Fall protection equipment must be stored in a clean dry location away from exposure to abrasive or cutting tools, equipment or materials, excessive heat, and chemicals.
  - B. Full body harnesses should be hung by the D-ring for storage.
  - C. The Employee prior to each use must inspect all fall protection equipment.
20. Harnesses, Lanyards and Lifelines
  - A. Inspect all equipment before each use.
  - B. Buckles: Many body harnesses have interlocking buckles called (friction buckles). Look for bends, cracked, or nicks. Test buckles to insure coupling is secure.
  - C. Rope or Webbing: Look for frayed, cracked, cut, burned, or other damage to wedding, and loose or broken stitching.
  - D. D-rings: Bent, cracks, nicks, or gouging.
  - E. Manufacture's label: The following information must appear on the label.
    - I. Vendor identification
    - II. Size of harness
    - III. Manufacture date
    - IV. Model number
  - F. Snap-hooks: All snap-hooks will have a two-stage automatic closing and locking mechanism. Check for bends, cracks, nicks, rust and corrosion, and mechanism works properly.
  - G. Equipment found to be defective must be immediately removed from service, red tagged as defective and returned to the Safety Management for disposal.
  - H. The Competent Persons must conduct in-depth inspections of all jobsite fall protection equipment periodically (at least annually).
  - I. The Competent Person shall utilize the specific fall protection equipment manufacturer's inspection instructions to perform the in-depth inspection.
  - J. Some types of fall protection equipment (such as self-retracting lifelines) require periodic re-certification by the manufacturer at scheduled intervals. The Competent Person must be familiar with these requirements and have a documented re-certification performed as required.
  - K. Fall protection equipment subjected to fall forces, must be immediately removed from service, red tagged as defective and returned to the Safety Management for disposal.
21. Program Review shall be completed at least once yearly with incidents that are relative to this program to improve program and reduce fall related injuries.

**TRAINING**

1. Fall Prevention Training shall occur upon occur prior to being assigned the task and when a lack of proficiency is observed, or new equipment is introduced
  - A. Refresher training is required annually and if a lack of proficiency is observed, or when new equipment is introduced
2. Employees must be trained on the proper use, care, and limitations of fall protection equipment, before such equipment is assigned.
  - A. The Wilkinson Electric Fall Protection Program

- B. Evaluating Fall Hazards
  - C. Fall Prevention
  - D. Equipment Use, Care and Limitations
  - E. Proper Fitting and Wearing of Fall Protection Equipment
  - F. Requirements and Proper Use of Anchor Points
  - G. Inspection
3. Training Documentation shall include: Required for ALL Fall Protection Training
- A. Signature of Instructor and Employee
  - B. Date of training
  - C. Written competency test

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

7.1.1 Fall Prevention and Protection Comprehension Quiz

## Hand and Power Tools Program

### PROGRAM STATEMENT

Employees will receive proper on the job training in the use of hand and power tools.

### DEFINITIONS

1. Qualified person: A person by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience has successfully demonstrated their ability to solve or resolve problems relating to the subject matter.
2. Safety trained: An Employee trained by a Competent Person to recognize the hazards associated with the use of hand, electrical, powder actuated, fuel-powered, pneumatic, and lifting tools.
3. Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazard or remove the employee from the hazard.

### RESPONSIBILITIES

1. Employee
  - A. Shall inspect all tools and equipment prior to use
  - B. Shall use the right tool for the task
  - C. Shall comply with all PPE requirements as stated by the manufacturer
  - D. Shall not use defective or damaged tools
  - E. Shall properly store tools and equipment
  - F. Shall avoid using compressed air to remove construction dust from clothing, tools, or equipment
  - G. Shall request training prior to using new or unfamiliar tools.
2. Supervisor
  - A. Shall ensure employees receive proper training
  - B. Shall provide or replace tools as needed to perform tasks safely
  - C. Shall have all damaged or defective tools removed from the project
  - D. Shall provide employee supervision and oversight to maintain company safety standards

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. Inspect tools and equipment for defects and cleanliness prior to each use. Defective tools and equipment must be red "Danger Do Not Use" tagged and immediately removed from the work area.
  - B. Comply with all PPE requirements specified by the manufacturer. If a face shield is required, basic eye protection must also be used. PPE requirements applicable to the operator apply equally to non-operators assisting with the task.
  - C. Do not use tools that are stressed, worn or in need of repair.
  - D. Shut off or disconnect tools from power source before making any adjustments. In certain cases, this may involve implementing lockout procedures.
  - E. Do not store hand tools or equipment on top of ladders.
    - I. Secure tools to ladder ONLY when in use. Do not store tools or object on ladders when not occupied
    - II. Tool belt shall be used to store tools while ascending and descending a ladder
  - F. Wear tool pouches on the side. Do not carry tools in pants pockets. OSHA regulations recognize carrying tools in pockets is dangerous, especially if tools are sharp or pointed and a citation can be issued for this.
  - G. Tools should neither be dropped nor thrown from place to place, nor from person to person.
  - H. Do not use excessive pressure or force on any hand tool.
  - I. Make sure all portable electrically powered tools are grounded or double insulated to prevent electrical shock. The universal symbol for double insulated is a square within a square and is usually found on the handle of the tool.
  - J. Use GFCI's with all portable power generators.
  - K. Do not use electric cords for hoisting tools.
  - L. Make sure all air hoses exceeding 2-inch diameter have a Flow Control Valve installed at the source of supply.
  - M. Do not use compressed air to clean.
  - N. Make sure pneumatic power tools are secured to the hose or whip by a positive means to prevent accidental disconnection.
  - O. Keep hands dry and warm during operation of tools and equipment. Cold reduces circulation in the fingertips.
  - P. Lightly grasp tools that vibrate excessively.
  - Q. Stationary tools designed to be fastened, must be securely mounted to prevent movement or injury.

- R. When power tools are designed to accommodate guards, they must be equipped with the guards. Make sure all guards furnished by the manufacturer are in place at all times during use.
2. Inspection and Storage
- A. All tools must be kept clean and pass inspection by the user prior to each use. Those tools found to be defective are not be used. Such tools must be:
    - B. Red "Danger Do Not Use" tagged.
    - C. Removed from the work area
    - D. Repaired or replaced as recommended by the manufacturer.
  - E. Tools must always be returned to their proper storage place after each use. Improperly stored tools can become damaged and create a hazard.
  - F. Examine extension cords and ground wires for worn insulation, exposed strands of wire and/or missing ground plugs before using. If any of these conditions exist, have the cord repaired properly or replaced immediately.
  - G. Grinding wheels must be stored in a dry place with constant temperature above freezing and protected from physical damage that could cause cracking. A damaged grinding wheel can come apart in use and send small projectiles into the area around it. The projectiles can be moving at high speeds and may injure a person.
  - H. Tools must never be left unattended in a place where it would be available to unauthorized persons.
3. Powder Actuated Tools
- A. Powder Actuated tools should all be used with the same respect as a firearm.
  - B. Only properly trained operators may use powder actuated tools. When properly trained, each Employee will receive documented training from a Qualified Person, to be kept on their person as proof of training.
  - C. Use only approved tools with all built-in safety features including shields or guards that cannot be removed without making the tool inoperative.
  - D. Tools must be tested to ensure the safety devices are working properly. Defective tools must be red "Danger Do Not Use" tagged and removed from service immediately.
  - E. As a minimum, goggles and hearing protection are required when using any powder activated tool.
  - F. Rules for Safe Operation:
    - I. Hold tools firmly against and perpendicular (at a 90-degree angle) to the surface of the material.
    - II. Wear hearing protection and goggles when using the tool. This applies equally to those assisting with the task.
    - III. Do not store or use tools and cartridges in explosive or flammable atmospheres.
    - IV. Take precautions for the safety of persons in the immediate vicinity. Do not fire the tool until you are sure there is no one behind the surface you are working on in case of accidental penetration.
    - V. Never point a loaded or unloaded tool at another person, and always keep hands clear of the open end of the barrel.
    - VI. Always leave tool unloaded until it is being prepared for immediate use. Keep cartridges in the carrying case provided with the tool, and do not allow them to be carried loose in the operator's pockets.
    - VII. Use only the cartridge and load strength recommended by the manufacturer to control penetration.
    - VIII. Post warning signs in areas where the tool is to be used. The sign shall read:  
**"POWDER ACTUATED TOOL IN USE IN THIS AREA"**
    - IX. Use caution when driving fasteners or pins into soft material.
    - X. Drive fasteners a safe distance from the edge of material and in accordance with the manufacturer's instructions.
4. Electrical Tools
- A. Do not use ungrounded electrical tools, unless specifically approved/marked as double insulating, and not requiring a ground wire. The universal symbol for double insulated is a square within a square and is usually found on the handle of the tool.
  - B. Do not use electrical power tools with frayed cords. Electrical tape on a frayed cord does not constitute a repair of the cord.
  - C. Do not operate a machine you are not familiar with.
  - D. Do not drag cords over sharp edges or run them across aisles where they can be damaged or cause someone to trip.
  - E. Do not hang extension cords across sharp objects.
  - F. Do not roll up extension cords while they are energized.
  - G. Extension cords should be elevated 7' above ground to avoid tripping hazards and damage to the cord. Use non-conductive material to secure cords. Never use nails or tie wire.
  - H. Lock out and tag the power supply to machines while repairing or adjusting them. Electrical repairs can only be made by an authorized electrician.
  - I. Keep machine guards in position at all times.



- J. Do not wear loose or torn clothing, gloves, neckties, wristwatches, etc., when working with electrical equipment.
  - K. Ensure that electrical cords are clear of any moving parts that could snag the cord and entangle it, resulting in damage to the cord and/or equipment.
  - L. Unplug hand tools before changing parts or attempting adjustments.
  - M. Do not hoist or lower electrical tools by the cord.
  - N. Anytime portable electric tools and/or temporary electrical lines (extension cords) are used outdoors/indoors, a ground fault circuit interrupter (GFCI's) must be used to protect Employees from electrical shock hazards. (For additional information regarding refer to Wilkinson Electric 5.1 Electrical Safety Program)
5. Pedestal, Bench, and Portable Grinders
- A. **WARNING:** Remove or secure any loose-fitting clothing before using grinders.
  - B. Wheel rating must exceed the maximum potential RPM of the grinder on which it is mounted.
  - C. Only manufacturer approved compatible attachments are permitted.
  - D. Not more than one wheel is mounted between a single set of flanges.
  - E. All abrasive wheels shall be mounted between flanges which are at least 1/3 the diameter of the wheel.
  - F. On all portable tools, the control switch shall be instant-pressure controlled without a locking pin.
  - G. Guards must be installed and maintained.
  - H. If dust hazards exist, the proper respiratory protection shall be used.
  - I. Face shield and goggles shall be used.
  - J. Guards, work rests, eye shields, and other permanent protection devices must not be removed from any grinding or buffing wheels of Pedestal and Bench Grinders.
  - K. The user is responsible for installing all wheels and determining that they are designed for the speed of the grinder.
  - L. Dress the wheel, if it is out of true.
  - M. Grinding must not be forced.
  - N. If you are using the wire brush wheel, the work piece should be held at horizontal center of the brush.
  - O. The wire tips should do the work. Forcing work into the brush results in
    - I. No increase in cutting action.
    - II. An increase in wire breakage.
    - III. A tendency for work to become snagged.
  - P. Small pieces being brushed should be held in a simple jig, pliers or fixture that will prevent the operator's hand from contacting the surface of the brush.
  - Q. There will be a maximum of 1/8" space between the grinding wheel and work rest.
  - R. Do not grind non-ferrous metals.
6. Pneumatic tools
- A. When the air source is furnished by gas or diesel compressors keep them outside or vent them to the outside to prevent carbon monoxide poisoning.
  - B. If you are using a permanent source of air, make sure it is not oxygen. Oxygen mixed with the oil in your air hose and tool may cause an instant explosion and fire. Oxygen mixed with petroleum and 1 foot/pound pressure may result in an explosion.
  - C. Air hose and hose connections used with pneumatic tools must be designed for the pressure and service to which they are subjected.
  - D. Air hoses and connections must be checked daily for defects.
  - E. Air hoses must be protected from vehicle traffic, pedestrians, and sharp objects. Do not place hoses where they will become tripping hazards.
  - F. All connections must be pinned or chained to prevent whipping should disconnection occur.
  - G. Disconnect source and "bleed" hose before breaking connection on any air tool. Never crimp hoses to stop air.
  - H. Pneumatic hand tools must be disconnected from the source, and pressure in hose lines released, before any adjustments or repairs are made.
  - I. A tool retainer must be installed on each piece of equipment that, without such a retainer, may eject the tool (example: chisel, drill bit, etc.).
  - J. Never point a pneumatic hammer at anyone. There is always the chance the retainer might fail. The bit must be in contact with the work surface before pulling the trigger.
  - K. Always wear goggles and hearing protection when using air tools for chipping or using air to clean-off equipment.
  - L. Never use air tools to blow against clothing, any part of the body or use to clean/dust-off personnel.
  - M. Metatarsal and shin guards must be worn for complete foot protection when using ground tampers that leave the ground such as "pogo sticks", pavement breakers or jackhammers.
  - N. Keep tools clean and stored properly where they belong.
  - O. The use of hoses for hoisting or lowering tools is not permitted.

- P. All hoses exceeding 2-inch I.D. shall have a safety device at the source of supply or branch line to reduce the pressure in case of hose failure.

#### 7. Lifting tools

- A. Chain-falls and come-a-longs are designed to be operated as recommended by the manufacturer.
- B. Never wrap the chain of a chain hoist around the load.
- C. Know the weight of the load and capacity of the lifting device.
- D. Before making a lift with the chain fall, be sure the load is rigged properly and the lift area is barricaded and free of personnel.
- E. Make all lifts true vertically to prevent a shifting and swaying of loads and excessive wear on the hoist.
- F. Do not use cable-type lever hoists if the cable is frayed or damaged. Hoist is to be red "Danger Do Not Use" tagged and removed from service immediately.
- G. Never use a cheater bar on the handle of the come-a-long.

#### 8. Hand Tools

- A. Use the right tool for the job.
- B. Do not hold screwdriver work in palm of hand. The screwdriver may slip causing injury.
- C. Screwdrivers should be filed properly to prevent slipping.
- D. Hammers must have a clear path for back-swing, and the target area must be free from obstructions.
- E. Hammers with "mushroomed" heads should never be used as they might glance off the target, or the damaged head may splinter and send metal fragments flying.
- F. Never hold with your hand any object to be struck with a hammer by another worker. Hold the object with pliers or another tong-type device.
- G. Wooden handles shall be kept free of splinters or cracks and shall be kept tight in the tool.
- H. Do not use a file for a pry or hammer as it is brittle and breaks easily.
- I. Files shall be fitted with handles to protect workers from the pointed file end.
- J. Adjustable (crescent) and combination wrenches should be snug on bolts and/or nuts to avoid slipping.
- K. Never use a wrench as a hammer or a hammer on a wrench that is not designed for such use.
- L. Never use a cheater bar on a wrench or "double wrench" a nut. Use a hammer wrench or impact instead.
- M. Wrenches shall not be used when jaws are sprung to the point that slippage could occur.
- N. Do not use a drill as a reamer (get a larger bit).
- O. Do not change bits without unplugging the cord.
- P. Do not use chisels with defects:
  - I. Mushroomed heads.
  - II. Chipped points.
  - III. Over-tempered surfaces.
  - IV. Do not use as a pry bar.
  - V. Do not use one too short for hand safety.
  - VI. Do not chip toward yourself or others.
  - VII. Do not use without safety glasses, face shield and leather work gloves.
- Q. Do not use tools with unsafe defects:
  - I. Worn or battered heads.
  - II. Over-tempered.
  - III. Dull cutting edges.
  - IV. Rough, loose, cracked, or split handles.
  - V. Nicked edges.

- 9. Program shall be reviewed at least once a year with related incidents

#### **TRAINING**

- 1. All Employees shall receive basic tool and equipment safety during New Employee Orientation
  - A. Refresher training shall occur at least once a year or a lack of proficiency is observed, or when new equipment is introduced, unless another frequency is dictated by a specific Wilkinson Electric Program
- 2. All Employees using Wilkinson Electric provided tools will be properly supervised in the safe and proper operation of such equipment, by a Competent Person.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS** Not applicable at this time.



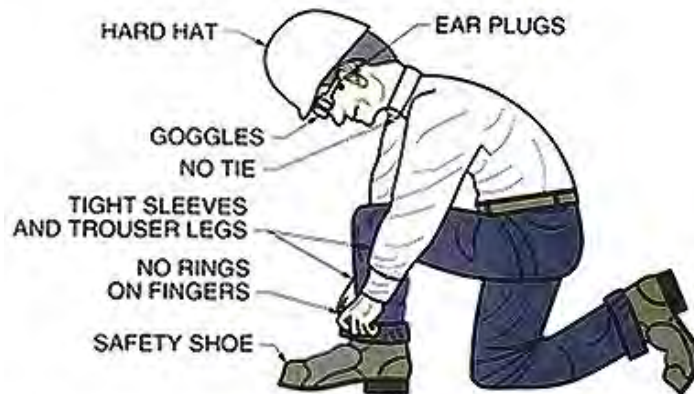
## Personal Protective Equipment Program

### PROGRAM STATEMENT

Prior to starting work, each location and each task shall be assessed to determine if hazards are present, or likely to be present, that could be capable of causing harm to Employees. This program applies to all employees performing service work, working on construction sites, warehouses, prefab shops and manufacturing facilities. It does not apply to office personnel performing routine office/clerical duties.

### DEFINITIONS

1. Safety trained: An employee trained by a Competent Person to recognize the hazards associated with personal protective equipment.



### RESPONSIBILITIES

1. Employee
  - A. Must wear an Wilkinson Electric issued hard-hat, safety glasses and gloves.
  - B. Must wear safety toe leather work boots that meet ANSI Z41 standards, extend over the ankle with a designed heel and a shank. Lace-up style boots will be fully laced at all times (tennis shoe type are not allowed). Safety toes are not required for residential employees working in wood frame housing.
  - C. Must be trained in the proper use, storage and sanitary maintenance of any PPE prior to use by the employee.
  - D. Must report for work wearing clothes that are in good repair and appropriate for the task assigned. Shirts shall have at least two-inch sleeves at a minimum. Frayed clothing or clothes with holes will not be allowed on site. Baggy pants are not allowed.
  - E. Jewelry is prohibited in work areas.
  - F. Must use required PPE.
  - G. Must use appropriate protection against falls of 6 feet or more. Must wear gloves 100% (reference Hand and Arm Protection section of this policy).
2. Supervisor
  - A. Supervision is required to assure all employees wear the proper PPE as required while in the workplace.
  - B. Ensure all employees are trained in proper use, care, maintenance, and disposal of PPE
  - C. Identify all hazards or potential hazards and confirm appropriate PPE is available to perform task safely
  - D. Enforce PPE program requirements on usage
3. Safety
  - A. Provide PPE training to all employees upon hire, when updates are made to the program, and at least one refresher yearly
  - B. Support supervisors in hazard identification and proper PPE selection

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. All Personal Protective Equipment (PPE) will be provided by Wilkinson Electric at no cost to the employee with the exceptions of work boots, prescription eyewear and volt meters.
  - B. PPE shall be used in conjunction with other efforts to eliminate hazards such as engineering controls, guards, and safe work practices.
  - C. Every employee is required to have a voltage tester/detector and it is to be on their person when there is the potential for energized electrical circuits, parts or equipment on a project. Reference Section 5.2

Wilkinson Electric Lockout/Tagout Procedures and 5.3 Energized Electrical Work Procedures of the Wilkinson Electric Safety Manual for further guidance and requirements. **ALWAYS TEST-VERIFY-TEST BEFORE YOU TOUCH!**

2. Inspection and Storage

- A. Employees are required to inspect all PPE prior to use. When inspecting the PPE look for:
  - I. Damage
  - II. Cuts, cracks and/or abrasions
  - III. Scratches in the surface
  - IV. Weathered components
  - V. Hardening or stiffening of pliable surfaces
  - VI. Rips or tear spots
  - VII. Deterioration due to age, chemical contact and/or heat exposure
- B. Equipment that is defective or damaged shall not be used, and immediately replaced.
- C. PPE shall be stored in a manner that will not adversely affect its integrity.
- D. PPE must be stored in a location that is free of harmful agents, such as chemical, particulate, sunlight, temperature extremes, excessive moisture, or physical agents, such as sharp objects.

3. Head Protection

- A. All Wilkinson Electric employees must wear hard hats at all times while in any work area.
- B. Wilkinson Electric employees must wear only hardhats issued by Wilkinson Electric.
- C. Hard hats must be worn in conjunction with welding hoods.
  - I. Soft hoods are not permitted.
- D. No employee is permitted to:
  - I. Wear hard-hats backwards.
  - II. Drill holes in the shell of the hard hat.
  - III. Alter the shape of the hat or bill.
  - IV. Remove the suspension straps or cut/alter them in any way.
  - V. Paint hard hats.
  - VI. Attach any stickers to the hardhat unless approved by Wilkinson Electric.
- E. Exceptionally long scalp hair may pose a hazard of getting caught in equipment or entangled and pulled into rotating equipment. All long hair must be tucked away or underneath the hard hat. Furthermore, long scalp hair must not interfere with the proper fitting of the hard hat.
- F. Do not wear any items (caps, hoodies, etc.) under the hard hat unless it is specifically designed by a manufacturer to be worn under a hard hat.
- G. Employees are required to inspect head protection prior to use to ensure the equipment is in safe condition. Equipment that is defective or damaged is not to be used. Inspect the head protection for:
  - I. Dents
  - II. Cracks
  - III. Suspension connector cracks
  - IV. Torn, loose or worn suspension straps
  - V. Cleanliness/sanitation



4. Hearing Protection

- A. Operators of heavy equipment must use approved hearing protection at all times while operating such equipment.
- B. All employees must wear hearing protection at all times when the sound levels in the work area exceed those shown in the following table:

Sound level dBA slow response	Duration per day, hours
90	8
92	6
95	4
97	3
100	2
102	1.5
105	1
110	0.5
115	0.25 or less



- C. The Division will make a variety of hearing protection available to the employees. However, Wilkinson Electric employees may wear only hearing protection approved by Safety Management. Approved hearing protection will include:
  - I. Ear plugs
  - II. Headband plugs
  - III. Ear muffs
- D. Employees are required to inspect hearing protection prior to use to ensure the equipment is in safe condition. Equipment that is defective or damaged or does not pass inspection is not to be used.
- E. Inspect hearing protection for: Ear plugs, disposable & reusable.
  - I. Softness
  - II. Discoloration
  - III. Cleanliness
- F. Ear muffs
  - I. Check cushions – wash as needed
  - II. Cracks in cushions or shell
  - III. Check for proper fit – loose muffs offer no protection

#### 5. Eye and Face Protection

- A. Employees must wear Wilkinson Electric issued (employees are responsible for the prescription safety eyewear) eye protection at all times while on a job-site or in a work area. Refer to the attached Eye and Face Protection Selection Chart for additional guidance.
- B. Prescription eyewear must meet the requirements of the ANSI Z-87.1 2010 standards. All prescription safety eyewear must be capable of protecting from any and all exposures to the eye the same as non-prescription safety eyewear.
- C. All prescription safety eyewear must have an integral side shield as part of the eyewear design, and **detachable side shields ARE NOT ALLOWED**. They must be a part of the manufacturers design, built into the frame and lenses. Please follow the following guidelines for protection by these markings:
  - I. Lens markings for Rx:
    - 1) All lenses will have the manufacturer's logo
    - 2) Coverage for small heads will have: "H" (this pertains to rimless designs)
    - 3) Impact rated will have a "+"
    - 4) Specific lens types will need to be marked as noted:
      - a) Clear: No Mark
      - b) Welding: "W" Shade Number
      - c) UV Filter: "U" Scale Number
      - d) Visible Light Filter: "L" Number
      - e) IR Filter: "R" Scale Number
      - f) Variable Tints: "V"
      - g) Special Purpose: "S"
  - II. Frames and shield markings for Rx:
    - 1) All frames will have the manufacturer's logo.
    - 2) Size markings will be in accordance with ANSI Z80.5 – 2004 and will include the "A" Dimension, DBL on the fronts with temple length on the temples.
    - 3) Impact rated frames will be marked "Z87-2+" on the front and on one temple.
    - 4) Small head tested frames will be marked with the letter "H."
  - III. Sequence of markings:
    - 1) Frames for Rx spectacles that are impact rated will have a manufacturer's logo, Standard mark ("Z87-2") and impact mark ("+").
    - 2) Lenses for Rx that are impact rated will have a manufacturer's logo, impact mark ("+") and other special marks as indicated by lens type.
- D. Prescription eyewear that does not meet the eye protection requirements will be allowed to be worn only if equivalent eye protection is worn over their prescription lenses (i.e. ANSI Z-87.1 OTG glasses). Prescription eyewear will not be provided by Wilkinson Electric and is the responsibility of the employee.
  - I. If there are any questions as to the correct type of prescription safety eyewear that can be purchased and used on any Wilkinson Electric jobsite, please contact your Division Safety Manager for details.
- E. Employees may wear contact lens on job-sites in conjunction with basic or required eye protection.
- F. Soft and gas permeable contact lens are currently allowed to be worn with respiratory protection.



- G. Goggles should not be worn over basic eye protection. However, goggles may be worn in conjunction with a face-shield.
- H. Approved impact-type goggles or face shield must be worn to ensure greater eye protection from flying particles. Tasks which require goggles, or a face shield include, but may not be limited to:
  - I. Chipping
  - II. Power Sawing
  - III. Scraping
  - IV. Hammering
  - V. Buffing
  - VI. Grinding
  - VII. Blowing
  - VIII. Pneumatic Tool Use
  - IX. Drilling overhead
- I. Goggles or a face shield that complies with ANSI Z-87.1 1989 must be worn to provide face protection to the employee from flying particles, splashes, or drilling overhead.
  - I. A face shield provides only protection to the face and eyes from direct impact objects.
  - II. Additional eye protection must be worn in conjunction with a face shield.
- J. Burning goggles shall be worn when an oxy-fuel torch is used for cutting or burning and the lenses must be at least Number 3 shade.
- K. A welding hood with a filtered lens of Number 10 shade or darker must be used to provide protection from damaging light radiation produced during electric arc welding.
  - I. Approved safety glasses with side shields and hard hats shall be worn in conjunction with the welding hood to ensure protection from popping hot slag when the hood is raised and overhead work exposures.
  - II. Pipe liner hoods (pancakes) are strictly forbidden.



#### 6. Foot Protection

- A. Employees must wear the required footwear as specified in the policy statement of this PPE program. Wilkinson Electric does not provide safety toe boots which are the responsibility of the employee.
- B. All footwear, except rubber boots, shall be made of leather and have a defined heel. The defined heel must be an original design by the manufacturer.
- C. Special purpose footwear (i.e., crush resistant, chemical resistant, puncture resistant and di-electric footwear) shall be selected and used to provide protection to employees from these identified hazards, refer to SDS.
- D. Employees who perform tasks which expose them to potential foot/leg injury hazards (using jackhammer, ground tamper, etc.) shall wear additional foot/leg protection, such as metatarsal and shin guards.



#### 7. Hand and Arm Protection

- A. Employees are required to wear gloves 100% of the time while on active construction or service projects, when performing work/tasks in warehouse or prefabrication facilities and while performing office/facility maintenance or repairs. The policy requirements are as follows:
  - I. Employees are required to use the appropriate hand protection to protect against identified hazards such as those from cuts or lacerations, abrasions, skin absorption or harmful substances, punctures, chemical burns, thermal burns and harmful temperature extremes, and electrical contact.
  - II. All gloves shall be full finger type gloves.
  - III. All exceptions to this policy require prior approval from the Safety Department for tasks requiring increased dexterity.
    - 1) The task and potential hazards shall be outlined using a JHA/PTP/Work Plan.
- B. Kevlar or Dyneema sleeves will be utilized where there is potential for the arm to come into contact with sharp edges that could cause lacerations, cuts or abrasions.
- C. Selection Guidelines for Hand Protection
  - I. There is no one glove that can provide protection against all potential hand hazards. It is important to select the most appropriate glove for the specific application. Reference the attached Wilkinson Electric Glove Selection Guide; it is a guide only; all tasks should be evaluated for potential hazards and appropriate PPE.
  - II. Employees must use Wilkinson Electric provided gloves. Other factors which may affect glove selections that meet Wilkinson Electric standards, include:



- 1) Fit (Sizes)
  - 2) Dexterity needed (Thicker gloves may prevent using hands/fingers fully)
  - 3) Degree of exposure to the hazard
  - 4) Durability of the glove for the task at hand
- III. Chemical properties such as toxins, corrosives or irritants, as well as local affects (area contacted) or systemic effects (absorbed through skin) must be determined prior to selecting gloves. The corresponding Safety Data Sheet (SDS) can provide this information and possibly additional guidance for hand protection and other PPE
- IV. If gloves are worn for chemical protection, requirements for proper disposal must be established and communicated to affected employees.
8. PPE administered by other Wilkinson Electric Safety Programs
- A. Respiratory Protection
- I. Reference Wilkinson Electric 21.1 Respiratory Protection Program
  - II. If a hazardous condition exists, remove yourself and coworkers away from the hazard and call your supervisor or safety.
  - III. If a hazard analysis identifies the need for respiratory protection
    - 1) Notify the Division Safety Manager immediately
    - 2) Do not perform any task that requires a respirator without proper training and sign-off from Safety
    - 3) Do not use a filtering face piece (dust masks) as a form of respiratory protection
- B. Conditions that may require respirator protection
- 1) Cutting or Grinding concrete, drywall, or other possible silica containing materials shall not be performed without referencing 24.1 Respirable Crystalline Silica Awareness Program
  - 2) Working with or around hazardous chemicals may require the use of a respirator. Check the SDS.
  - 3) Dry Sweeping is prohibited – a sweeping compound may eliminate the dust Do not work in areas where other contractors are dry sweeping.
  - 4) All employees should avoid the area where painting is occurring if possible.
    - a) If you cannot avoid the area, request a SDS for the product from the painting contractor.
    - b) This will give you the information needed to determine if the product could create a hazardous atmosphere.
    - c) In any situation that you are not sure of, call Safety Management for guidance.
  - 5) Respirator training will be conducted and coordinated by Safety Management
- C. *Fall protection* will comply with Wilkinson Electric 7.1 Fall Prevention and Protection Program Employees who need fall protection shall receive specific training on the proper use of the fall protection equipment
9. Program shall be reviewed at least once a year with incidents related to this program

**TRAINING**

1. Employees shall be trained on assigned PPE
  - A. Upon hires a part of New Hire Orientation
  - B. Whenever new PPE is assigned to them
  - C. Refresher training at least once yearly or when the employee demonstrates the need for follow-up training.
2. Employees will be trained on:
  - A. When to use the personal protection equipment
  - B. How to use the personal protection equipment
  - C. Limitations of the personal protection equipment
  - D. Proper care, maintenance, useful life, and disposal of the equipment
3. The Employee must demonstrate their understanding prior to use

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 9.1.1 Eye and Face Protection Selection Chart
- 9.1.2 Hand Protection Glove Selection Chart





### Eye and Face Protection Selection Chart

Taken from 29 CFR 1910 Subpart I Appendix B - Non-Mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection

The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations.

Source	Assessment of Hazard	Protection
<p><b>Impact</b> Chipping, grinding, machining, masonry work, woodworking, sawing, drilling, chiseling, powder fastening, riveting, and sanding.</p>	Flying fragments, objects, large chips, particles, sand, dirt, etc.	Spectacles with side protection, goggles, face shields. See notes (1), (3), (5), (6), and (10). For severe exposure, use face shield.
<p><b>Heat</b> Furnace operations, pouring, casting, hot dipping and welding</p>	Hot Sparks	Face shields, goggles, and spectacles with side protection. For severe exposure use face shields. See notes (1), (2), (3).
	Splash from molten metals	Face shields worn over goggles see notes (1), (2), (3).
	High temperatures	Screen face shields, reflective face shields see notes (1), (2), (3).
<p><b>Chemicals</b> Acids and chemical handling, degreasing plating</p>	Splash	Goggles, eyecup and cover types. For severe exposure, use face shield. See notes (3), (11).
	Irritating Mists	Special-purpose goggles.
<p><b>Dusts</b> Woodworking, buffing, general dusty conditions.</p>	Nuisance dust	Goggles, eyecup and cover types. See note (8).
<p><b>Light and/or Radiation</b> Welding: Electrical arc</p>	Optical radiation	Welding helmets or welding shields. Typical shades: 10-14. See notes (9), (12)
Welding: Gas	Optical radiation	Welding goggles or welding face shield. Typical shades: gas welding 4-8, cutting 3-6, brazing 3-4. See note (9)
Cutting, torch brazing, torch soldering	Optical radiation	Spectacles or welding face-shield. Typical shades, 1.5-3. See notes (3), (9)
Glare	Poor vision	Spectacles with shaded or special-purpose lenses, as suitable see notes (9), (10).

**Eye and Face Protection Selection Chart:**

1. Operations involving heat may also involve light radiation. As required by the standard, protection from both hazards must be provided.
2. Face shields should only be worn over primary eye protection (spectacles or goggles).
3. As required by the standard, filter lenses must meet the requirements for shade designations in 1910.133(a) (5). Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.
4. As required by the standard, persons whose vision requires the use of prescription (Rx) lenses must wear either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eyewear.
5. Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment. It should be recognized that dusty and/or chemical environments may represent an additional hazard to contact lens wearers.
6. Caution should be exercised in the use of metal frame protective devices in electrical hazard areas.
7. Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.
8. Welding helmets or face shields should be used only over primary eye protection (spectacles or goggles).
9. Non-side shield spectacles are available for frontal protection only but are not acceptable eye protection for the sources and operations listed for "impact." *\*Does not comply with Wilkinson Electric Policy*
10. Ventilation should be adequate, but well protected from splash entry. Eye and face protection should be designed and used so that it provides both adequate ventilation and protects the wearer from splash entry.
11. Protection from light radiation is directly related to filter lens density. See note (4). Select the darkest shade that allows task performance.



 <h2 style="text-align: center;">Glove Selection Guide</h2>	 <p><b>Mechanics Style</b></p>	 <p><b>Leather</b></p>	 <p><b>Dyneema Gloves</b></p>	 <p><b>Kevlar</b></p>	 <p><b>Dyneema / Kevlar Sleeves</b></p>
<b>Working Task</b>					
Installing Overhead Conduit/MC Cable/Cable Tray	■	■			
Installing conduit or raceway in slab	■	■			
Installing conduit/MC Cable/Raceway in metal stud wall			■	■	■
Pulling Wire	■	■			
Installing electrical panels			■	■	
Working in/on electrical panel			■	■	■
Using knife or other instrument to cut or strip			■	■	■
Working on/around materials w/ sharp edges			■	■	■
Working on/around materials w/ rough edges	■	■			
Installing lay-in light fixtures			■	■	
Working on/around metal lathe			■	■	■
Clean up/Housekeeping	■	■			

**This is a guide only, all tasks should be evaluated for potential hazards that may be present and use of the appropriate PPE. Always consult with your Safety Manager.**



## Equipment Inspection Checklist

Project Name & Number	Hour Meter	Start Date						
Equipment Type & Serial Number	Hour Meter	End Date						
<b>Y = Yes   N = No   N/A = Not Applicable</b>	<b>DATES:</b>							
<b>Inspection Item &amp; Description</b>	<b>M</b>	<b>T</b>	<b>W</b>	<b>T</b>	<b>F</b>	<b>S</b>	<b>S</b>	
Operator has proper training & holds training card								
Operator read & understood safety manual								
Work Plan completed & discussed with crew								
Tires inflation (visual wear and damage)								
Brakes (parking)								
Lights								
Hydraulic system (fluid level and leaks)								
Battery (clean & secure)								
Horn								
Backup alarm								
Gauges and instruments								
Cleanliness of vehicle								
Seatbelts wear & tear								
Engine Area (leaks, visual service indicators for fuel/air filters)								
Oil (fluid level, leaks, service due time or date)								
Water (Fluid level, hoses, belts, leaks)								
Name plates and warning decals								
Load charts								
Roll over protection cab (damage)								
Grease fittings (service daily)								
Fire extinguisher (if applicable)								
Rigging (chains, slings, ropes)								
Fuel System (correct type of fuel, service indicators)								
<b>WORK AREA ASSESSMENT:</b> Survey work area for potential hazardous operating conditions prior to AWP usage. "Check" work area, if conditions are present, refer to the Daily Pre-Task Work Plan. Ensure hazards identified are addressed during pre-task planning with sufficient strategies to mitigate the hazards or risks.								
<b>Floor/Ground:</b> Drop offs, holes, uneven surfaces, sloped floors, unstable ground, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Housekeeping:</b> Debris, floor obstructions, cords, construction materials, supplies, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hazardous Energy:</b> Electrical power cables or panels, chemical/gas/drain lines, utilities, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Overhead Obstructions:</b> Tight working conditions, adjacent structures, pipe racks, beams, ceiling grids, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Operator/Inspector Names &amp; Signatures</b>	<b>Initials</b>							

**NOTE:** Complete this checklist before each use of Equipment. If anything is answered "defective" the equipment must be repaired & re-inspected before returning it to service. **Maintain completed forms on Equipment.**



## Equipment Safety Program

### PROGRAM STATEMENT

Employees will be trained properly to operate, use and work in and around equipment that has the potential to do physical harm if not handled or operated correctly.

### DEFINITIONS

1. Authorized: An employee trained and assigned to perform a specific type of duty or duties.
2. Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazards or remove the employee from the hazardous condition.

### RESPONSIBILITIES

1. Employee
  - A. Shall receive training in the use of equipment prior to use.
  - B. Shall perform all equipment inspections as required, prior to each use.
  - C. Shall choose the right equipment for the job and task
  - D. Shall use all equipment for its intended use and in accordance with the manufacturer's instructions
2. Supervisor
  - A. Shall have employees trained prior to using equipment
  - B. Shall ensure equipment is maintained in accordance with the manufacturer's instructions

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. Know how to operate the equipment you are using as per the manufacturers guidelines.
  - B. Seatbelts will be worn at all times when operating equipment.
  - C. All equipment must be equipped with an audible backup warning device.
  - D. Do not use heavy machinery when you are drowsy, intoxicated, or taking prescription medication that may affect your performance.
  - E. Use only equipment that is appropriate for the work to be done.
  - F. Inspect your equipment to ensure that it is in good working condition before beginning a job. In addition, ensure that regular inspections and maintenance are conducted as appropriate.
  - G. Do not stress or overload your equipment.
  - H. Ensure the following before leaving equipment unattended:
    - I. All buckets, blades, forks etc. are on the ground.
    - II. Transmission is in neutral (if the transmission is an automatic, place in park).
    - III. Engine is off.
    - IV. Equipment is secure against movement.
  - I. Never get on or off moving equipment.
  - J. Wear hearing protection when operating equipment without a cab.
  - K. Do not attempt to lubricate or adjust a running engine.
  - L. Turn the engine off before refueling.
  - M. Keep all shields and safety guards in place.
  - N. Avoid underground utilities and overhead power lines.
  - O. Forklift general operations will comply with:
    - I. Only authorized Employees may operate equipment.
    - II. Do not allow yourself to be distracted while raising or lowering a load.
    - III. If you must stop during an operation, check the exact position of the mast in relation to other material before resumption of activity.
    - IV. Do not allow riders.
    - V. Do not raise people on a forklift.
    - VI. Do not speed.
    - VII. Drive up and back down ramps.
    - VIII. Do not walk, stand, or work under the elevated portion of a forklift (even if it is not loaded).
    - IX. Ensure that the forklift has an overhead barrier to protect the operator from falling objects.
    - X. Always set the emergency brake when leaving the equipment unattended.
  - P. Backhoe and front-end loaders general operations will comply with:
    - I. Only authorized Employees may operate backhoes and front-end loaders.
    - II. Always operate at a safe speed.
    - III. Travel with the bucket low to the ground.
    - IV. Always lower the bucket before servicing the equipment or leaving the loader unattended.
    - V. Use a rigid-type coupler when towing loads.

- VI. Always check with the utility division before digging.
- VII. Be extremely careful when operating near banks and slopes.
- VIII. When cutting a bank, be careful not to cause a cave-in.
- IX. Do not drive on an overhang.
- X. Always set the emergency brake when leaving the equipment unattended.

## 2. Inspection

- A. The operator prior to each use must inspect all heavy equipment.
  - I. All inspections will be performed per the equipment manufactures guidelines.
  - II. Any defective equipment will be repaired or replaced before continued use.

## 3. Forklifts Specific Operations

- A. Only authorized Employees may operate forklifts.
- B. Do not allow riders. Do not raise people on a forklift.
- C. Do not speed.
- D. Drive up and back down ramps.
- E. Do not walk, stand, or work under the elevated portion of a forklift (even if it is not loaded).
- F. Ensure that the forklift has an overhead barrier to protect the operator from falling objects.
- G. Always work within the capacity limits of your forklift. Consult with the manufacturer before modifying the operation or capacity limits of a forklift.
- H. Do not operate a forklift in areas with hazardous concentrations of acetylene, butadiene, hydrogen, ethylene, or diethyl ether, or other explosive environment.
- I. Never lift a load while moving. Wait until you are completely stopped before raising the mast.
- J. Be sure the top load sits squarely on the stack. An uneven load could topple.
- K. Travel with loads slightly tilted back to provide stability.
- L. Travel with loads at the proper height. A stable clearance height is usually 4 to 6 inches at the tips and 2 inches at the heels of fork blades. Lift stacked loads in the same manner as loads on the floor.
- M. When preparing to leave the forklift unattended, lower the mast, neutralize the controls, shut the power off, and set the brakes. The forklift is "unattended" when the operator is not seat belted in the seat of the equipment.
- N. When ascending or descending a grade in excess of 10 percent, drive the forklift with the load upgrade.
- O. If you cannot see over a load, drive in reverse. Do not try to look around a load and drive forward.
- P. If the forklift was originally equipped with seatbelts by the manufacturer, they must be maintained and worn during operation.
- Q. Always sound your horn before rounding corners, entering or exiting doorways, and to warn pedestrians, that may not see you, of your approach.
- R. When traveling between indoors and out, allow your eyes time to adjust to the lighting differences.
- S. Never use a gasoline or diesel-powered forklifts inside buildings, trucks, trailers, or railcars without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
- T. Beware of traffic hazards.
- U. Keep fire or spark producing devices away from batteries.

## 4. Backhoe Specific Operation

- A. Only authorized Employees may operate backhoes.
- B. Do not allow riders.
- C. Travel with bucket low to the ground.
- D. Travel at safe speeds.
- E. Check for underground utilities before digging.
- F. If the backhoe was originally equipped with seatbelts by the manufacturer, they must be maintained and worn during operation.
- G. Use the backhoe only for its intended use.
- H. Never use a gasoline or diesel-powered backhoe inside buildings without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
- I. Be sure Employees are out of the trench before digging.
- J. Beware of traffic hazards.
- K. Keep fire or spark producing devices away from batteries.

## 5. Trencher Specific Operation

- A. Only authorized Employees may operate trenchers.
- B. Travel at safe speeds.
- C. Check for underground utilities before digging.
- D. If the trencher was originally equipped with seatbelts by the manufacturer, they must be maintained and worn during operation.
- E. Use the trencher only for its intended use.

- F. Never use a gasoline or diesel-powered trencher inside buildings without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
  - G. Keep all body parts and clothing away from moving parts.
  - H. Never re-fuel the trencher while it is hot or running.
  - I. Always have a Class B fire extinguisher available and close by when re-fueling.
  - J. Keep fire or spark producing devices away from batteries.
6. Soil Compactor Specific Operation
- A. Only authorized Employees may operate compactors.
  - B. Where proper shin and metatarsal guards.
  - C. Keep all body parts and clothing away from moving parts.
  - D. Never use a gasoline-powered compactor inside buildings without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
  - E. Never re-fuel the compactor while it is hot or running.
  - F. Always have a Class B fire extinguisher available and close by when re-fueling.
7. Air Compressor Specific Operation
- A. Only authorized Employees may operate compressor.
  - B. Never use a gasoline-powered compressor inside buildings without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
  - C. Never re-fuel the compressor while it is hot or running.
  - D. Always have a Class B fire extinguisher available and close by when re-fueling.
  - E. Have positive locking pins on all hose connections.
  - F. Use only approved tools and accessories with the air compressor.
  - G. Never exceed the maximum PSI (pounds per square inch) rating of the tools and accessories.
  - H. Always bleed off and release the pressure before removing hoses, tools and accessories.
  - I. Keep all body parts and clothing away from moving parts.
  - J. Keep fire or spark producing devices away from batteries.
8. Light Tower Specific Operation
- A. Only authorized Employees may operate light tower.
  - B. Never use a gasoline powered Light Tower inside buildings without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
  - C. Never re-fuel the light tower while it is hot or running.
  - D. Always have a Class B fire extinguisher available and close by when re-fueling.
  - E. Stay a minimum of two feet distance from light tower lamps in operation.
  - F. Do not touch or handle the bulbs in the light tower when they are hot.
  - G. Place light tower on stable ground and out of the high traffic areas to prevent damage.
  - H. Place light towers as far away from the work area to allow maximum beam spread and maximum intensity (foot candles) at the work location.
  - I. When operating a light tower, ground the unit when possible.
  - J. Keep fire or spark producing devices away from batteries.
9. Generator Specific Operation
- A. Only authorized Employees may operate generator.
  - B. Never use a gasoline or diesel-powered generator inside buildings without proper ventilation. Carbon monoxide can accumulate resulting in serious injury or death.
  - C. Never re-fuel the generator while it is hot or running.
  - D. Always have a Class B fire extinguisher available and close by when re-fueling.
  - E. Provide proper grounding per the NEC (national electrical code).
  - F. Be sure all guards are installed and intact on generator before using.
  - G. Place generator on stable ground and out of the high traffic areas to prevent damage.
  - H. Electrically check all receptacles on generator to be sure they are working properly, before putting generator into service.
  - I. Keep all body parts and clothing away from moving parts.
  - J. Keep fire or spark producing devices away from batteries.
10. Hydraulic Tooling Specific Operation
- A. Hydraulic equipment operates under very high pressures. Any worn parts or improper alignment of the tool could result in tool structural failure and injury to anyone in the vicinity of the tool.
  - B. Always keep hydraulic pump clean with caps on the hydraulic connections.
  - C. Always keep hydraulic hoses clean with caps on the hydraulic connections.
  - D. Always replace worn parts immediately.
  - E. Fix or replace leaking rams, hoses and/or pumps immediately.

- F. Never use a substitute for a pin or pin lock. The manufactured pins and their locks are designed for the hydraulic stresses put on them; a substitute may not be.
- G. Store all metal parts properly to prevent damage to them.
- H. Keep all body parts and clothing away from moving parts.

11. Program Review at least once a year with related incidents

### EQUIPMENT SAFETY ALERT SYMBOLS



**MEANS:  
ATTENTION! BE ALERT!  
YOUR SAFETY IS INVOLVED**

**THIS SAFETY SYMBOL IS USED FOR IMPORTANT SAFETY MESSAGES. WHEN YOU SEE THIS SYMBOL, FOLLOW THE SAFETY MESSAGE TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE.**

#### UNDERSTANDING SIGNAL WORDS

A signal word - DANGER, WARNING or CAUTION is used with the safety alert symbol.



**DANGER** Identifies the hazard or unsafe practice that will result in severe injury or death.



**WARNING** Identifies the hazard or unsafe practice that could result in severe injury or death.



**CAUTION** Identifies the hazard or unsafe practice that could result in minor injury or property damage.



**NOTICE** Identifies important installation, operation or maintenance information.

### TRAINING

1. Prior to operating heavy equipment, employee must be trained and exhibit practical understanding and competency
2. Re-training shall occur at least once a year and when employee exhibits behavior that suggests additional training is needed.
3. When new equipment is introduced, all affected employees shall receive training

### RECORDKEEPING

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

### FORMS

#### 10.1.1 Equipment Inspection Form



## Aerial Work Platforms Program

### PROGRAM STATEMENT

To insure the safety of every employee operating and/or working near operating aerial work platforms (Boom lifts, scissor lifts, bucket trucks, telescope single person-lift and crane suspended work platforms).

### DEFINITIONS

1. Aerial Work Platform (AWP) is a mobile mechanical device used to temporarily access work at height operations. Includes: Scissor Lift, Boom Lift;
2. Trained Operator: An employee instructed by a certified instructor on the safe operation of aerial work platforms and one who recognize the limitations and hazards associated with operating aerial work platforms.
3. Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees, and who is authorized to take prompt corrective measures to eliminate the hazard or remove the employee from any hazardous condition.
4. Trainer: One who has the knowledge by training and experience, to train others in the safe and proper use of aerial work platforms.

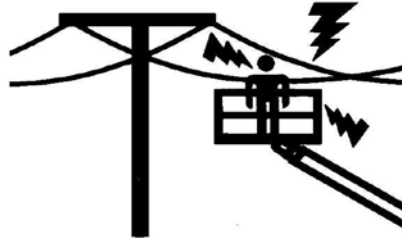
### RESPONSIBILITIES

1. Employee
  - A. May only operate equipment after successfully completing Wilkinson Electric AWP Training
  - B. May not be on equipment unless properly trained.
2. Operator
  - A. Shall only operate equipment in accordance with manufacturer's instruction manual
  - B. Shall inspect equipment before each use
  - C. While operating equipment, ensure weight capacity is not exceeded.
  - D. Ensure only trained employees are on the lift.
3. Supervisor
  - A. Shall periodically check inspection sheets to confirm compliance with Wilkinson Electric Program Requirements

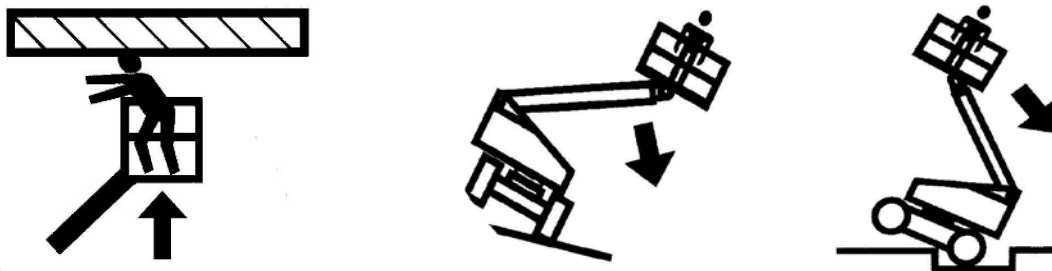
### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. Only trained Wilkinson Electric employees can operate Wilkinson Electric owned or rented equipment; under no circumstances should untrained employees or employees from any other third party, operate, borrow or use such equipment.
    - I. An employee must be trained to operate each specific piece of equipment and must establish proof of training (Wilkinson Electric Training Card) prior to operating equipment
    - II. No untrained person shall enter or use an Aerial Work platform, whether they are operating the controls or assisting another employee.
    - III. To become a trained operator an employee must be trained by a Competent Person on each specific piece of equipment being used.
  - B. Before starting any work from an aerial work platform, a "Supervisor Work Plan" must be implemented. Correct equipment must be selected for the anticipated work. When selecting equipment consider the following:
    - I. Working height. This will determine the platform height of the equipment.
    - II. Working reach (up and over an obstacle).
    - III. Load limitations.
    - IV. Terrain.
    - V. Clearance restrictions.
    - VI. Method of propulsion (gas, diesel, electric, LPG).
    - VII. Ventilation of exhaust fumes.
  - C. Precautions to avoid all known hazards in the work area will be taken by the lift operator and the Supervisor.
  - D. Perform a lift inspection, prior to each use, to ensure systems are functioning properly.
    - I. Operating and emergency controls.
    - II. Safety devices.
    - III. Personal protective devices.

- IV. Air, hydraulic, electrical, and fuel systems.
- V. Loose or missing parts.
- VI. Tires and wheels.
- VII. Placards, warnings, control markings, and operating manual.
- VIII. Outriggers, stabilizers.
- IX. Guardrail system.
- E. Safety During Operating Equipment
  - I. All employees entering and/or exiting the aerial work platforms must face the lift and use the three points of contact as described in the "Ladder Safety" section.
  - II. Lifts will have a "dead-man" type control that will stop all functions when released.
  - III. When riding in a platform both feet must be firmly positioned on the floor.
  - IV. Avoid operating lifts over ground personnel, and warn them not to work, walk or stand under a raised platform. Position barricades if necessary.
  - V. Keep non-operating personnel at least six (6) feet away from lift during driving operations.
  - VI. Check clearance above, on both sides and below the platform before moving the lift in any direction.
  - VII. Lower work platform to the lowest possible level before moving the lift. The lift does not need to be lowered when moving straight forward and/or straight backwards on level concrete.
  - VIII. Ensure ground conditions are adequate to support the lift.
  - IX. Do not exceed rated platform weight capacity.
  - X. Do not rest platform on piping, conduit, cable tray or similar structures.
- F. Guardrail systems are installed, and access gates or opening are closed per manufactures instructions.
- G. All safety devices (gate latches, gate chain,) must be in place before operating the lift.
  - I. Any defects or malfunctions that affect the safety of operations will be identified and then repaired before using the lift.
- H. Maintain a ten (10) foot clearance from any part of an electrical line or apparatus up to 50,000 volts. An additional one (1) foot clearance is required for each additional 30,000 volts.



- I. Do not position a ladder, or any other object, on lifts to provide additional reach.
- J. Insure you have adequate clearance and all personnel are clear before deploying the outriggers.
  - I. Insure the outriggers have solid footing and level the unit.
  - II. Mudsills may be required in soft or unstable ground.
- K. Check travel path for persons, holes, bumps, drop-offs, debris, pit or hole covers.



- L. Never "slam" the control lever through neutral to an opposite position.
- M. Do not use high speed when driving:
  - I. In restricted, congested areas.
  - II. With the platform raised.
- N. A minimum of 2'-0" clearance must be kept between the edge of the aerial work platform and any floor opening and/or edge of a slab drop off.
- O. Only use aerial work platforms for their intended design and purpose.

- P. If used for transferring to or from a structure, use extreme caution when exiting or entering the lift above the ground. (This practice should be discouraged whenever possible). The following precautions should be used:
- I. It is recommended to use the lifts gate.
  - II. Position the platform within one (1) foot of the structure.
  - III. Allow for vertical movement as weight is being transferred.
  - IV. An approved dual lanyard and body harness system must be used.
  - V. The lanyard anchor point must have a 5000-pound minimum break strength.
  - VI. Before exiting the lift, the lanyard must be attached to an anchor point on the structure.

## 2. Inspection

- A. Aerial work platforms are to be inspected at the following times:
- I. Initially when the lift arrives.
  - II. Daily before use.
  - III. On a monthly basis, for all long-term rentals or long-term usage.
  - IV. Annually for the boom truck.
- B. Monthly, initial and daily inspections are to be used to check for the obvious defects in the equipment. An "Equipment Inspection Checklist" for aerial working platforms has been developed by Wilkinson Electric and is Section 10.1.1 of the Wilkinson Electric Safety Program. Only monthly inspections are required to be kept in the project files. The checklist can be used for a daily and/or initial checklist but does not have to be kept in the project file.
- C. The boom truck must have yearly (or every 1000 hours) inspections and testing per the manufacturer's recommendations.
- D. Any aerial work platforms found to have a functional defect that would create a safety hazard is to be removed from service, repaired and then re-inspected before returning to service.

## 3. Equipment Specific Requirements

### A. Boom lifts

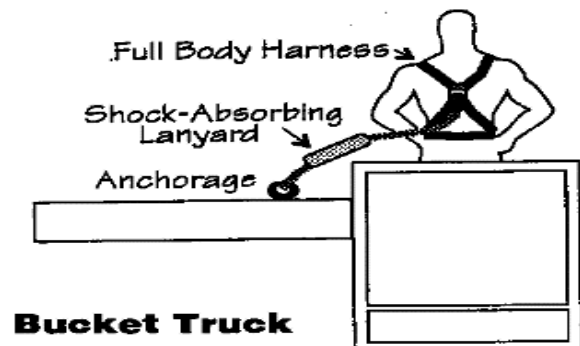
- I. All persons occupying the work platform will wear a full body harness and lanyard.
- II. Inspect the lift before use.
- III. Do not operate lifts in a raised position when wind conditions exceed 30 MPH.
- IV. The operator will always face the direction the platform is moving.
- V. Always position the boom over the rear (drive) axle in line with the direction of travel.
  - 1) If the boom is over the front axle the steering controls will be reversed.
- VI. Outriggers (if equipped) must be set fully extended before raising the platform.
- VII. Insure there is adequate clearance for the swing of the counterweight. Confirm when turning the boom, the counterweight section does not injure anyone or damage the surrounding structure.
- VIII. When parking the lift, insure platform is in its lowest position.

### B. Scissor Lifts and Telescoping single person lift -

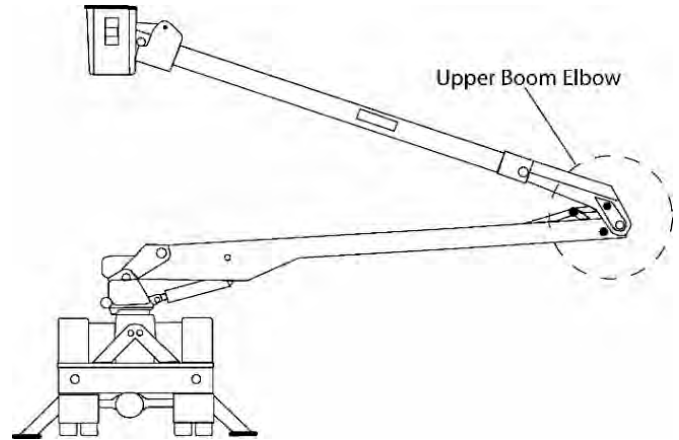
- I. Inspect the lift before use.
- II. Operate on a surface within the limits specified by the manufacturer.
- III. All outriggers, stabilizers or other stability enhancing means must be used as required by the manufacturer.
- IV. When parking the lift insure platform is in its lowest position.
- V. Always walk a lift through a doorway. Never ride a lift when transferring it from one room to another through a doorway.
- VI. Keep all Employees, tools and materials within the confines of the lift's toe boards.
- VII. Stock lengths of conduit can overhang the end of a lift as long as it does not create additional hazards.

### C. Bucket trucks

- I. All persons working from the basket will wear a full body harness and lanyard.
- II. Inspect the unit before each use.
- III. Insure there is adequate clearance for the swing of the upper boom elbow. Confirm when turning the boom, the upper boom elbow does not injure anyone or damage the surrounding structure.
- IV. Operate on a surface within the limits specified by the manufacturer.



- V. Do not operate bucket in a raised position when wind conditions exceed 30 MPH.
- VI. Have an equipment inspection and dielectric test completed on the boom truck once a year or every 1000 working hours.
- VII. Outriggers (if equipped) must be set fully extended before raising the bucket.
- VIII. The truck shall not be moved unless the boom is lowered, and the bucket is cradled.
- IX. Riding in the bucket with the truck moving is prohibited.
- X. When the boom is maneuvered over a street or highway, precautions must be taken to avoid accidents with pedestrians and traffic.
- XI. The operator will always look in the direction the bucket is moving.
- XII. When employees are working on the same pole, in no case shall they work simultaneously on energized equipment of different polarities.



4. Program review shall be at least once a year

#### **TRAINING**

1. Operators must be trained on the same type of equipment they will operate.
2. Training will consist of instruction and equipment proficiency demonstration.
3. Training records will be maintained by the Safety Department and indicated on the Wilkinson Electric Safety Training Card.
4. The documentation of training must have the name of the employee trained, type of training given, date of training and name of the trainer.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

- 10.2.1 Pre-Operation Checklist
- 10.2.2 Aerial Lift Comprehension Test
- 10.2.3 Operator Evaluation Checklist

## AWP Inspection Checklist

Project Name & Number	Hour Meter	Start Date
Aerial Platform Type & Serial Number	Hour Meter	End Date

Y = Yes   N = No ( <i>defective</i> )   N/A = Not Applicable   DATES:							
Inspection Item & Description	M	T	W	T	F	S	S
Operator (all Users) trained & possess valid training card/cert							
Work Plan has been completed & reviewed							
Manufacturer's Operation/Safety manuals stored on AWP							
Safety decals are in place and legible							
Control panel is clean & all buttons/switches are clearly visible (no paint overspray, etc.)							
All safety indicator lights work. Motion alarms are functional							
All guardrails are sound & in place, including basket chains/gate door							
All switch & mechanical guards are in good condition							
Inspect for defects: cracked welds, battery/fuel leaks, hydraulic leaks damaged control cables or wire harness, etc.							
Work platform extension slides in and out freely with safety locking pins in place to lock setting on models with extension platforms							
Work platform & extension slides are clean, dry, & clear of debris							
Operating & emergency controls work properly, EMO button or Emergency Stop. Emergency lowering function operates properly							
Both upper and lower controls are adequately protected from inadvertent operation							
Drive controls function properly & are accurately labeled (up, down, right, left, forward, back)							
Upper drive controls interlock mechanism is functional (i.e. foot pedal, spring lock, or two hand controls)							
Lower operating controls successfully override the upper controls							
Tires/Wheels are in good condition; adequate air pressure if pneumatic							
Braking devices are operating properly							
SRL/Lanyards hooked to manufacturers approved anchorage points							
<b>WORK AREA ASSESSMENT:</b> Survey work area for potential hazardous operating conditions prior to AWP usage.							
<b>"Check" Area for conditions; if conditions do not match daily workplan discuss with Supervisor</b>							
Ensure hazards identified are addressed during daily pre-task work planning with strategies to mitigate the hazards or risks.							
<b>Floor/Ground:</b> Drop offs, holes, uneven surfaces, sloped floors, unstable ground, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Housekeeping:</b> Debris, floor obstructions, cords, construction materials, supplies, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hazardous Energy:</b> Electrical power cables or panels, chemical/gas/drain lines, utilities, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Overhead Obstructions:</b> Tight working conditions, adjacent structures, pipe racks, beams, ceiling grids, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Operator/Inspector Names &amp; Signatures</b>	<b>Initials</b>						

**NOTE:** Complete this checklist before each use of an AWP. If anything is answered "defective" the lift must be repaired & re-inspected before returning it to service. **Maintain completed forms on AWP.**



## Powered Industrial Truck Program

### PROGRAM STATEMENT

To establish guidelines to reduce the potential for employee injury and to comply with all applicable standards and regulations. Only trained and authorized employees will be permitted to operate a powered industrial truck

### DEFINITIONS

1. Trained Operator: An employee instructed by an approved instructor on the safe operation of powered forklifts and one who recognize the limitations and hazards associated with operating powered forklifts.
2. Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees, and who is authorized to take prompt corrective measures to eliminate the hazard or remove the employee from any hazardous condition.
3. Trainer: A person within or outside the employment of Wilkinson Electric, who has the training, knowledge and experience, to train others in the safe and proper use of powered forklift being used.

### RESPONSIBILITIES

1. Employee / Operator
  - A. Shall operate equipment in accordance with this program and manufacturer's instructions
  - B. Shall perform all inspections in accordance with this program
    - I. Report inspection deficiencies immediately to Supervisor
  - C. Shall report all incidents to Safety Management immediately and Supervisor
  - D. Shall not operate equipment unless trained by and Wilkinson Electric Authorized Trainer
2. Supervisor
  - A. Shall ensure employees are trained prior to task assignment
  - B. Provide supervision and review inspection sheets regularly.
  - C. Shall remove equipment from service when deficiencies are found and schedule repairs or replacement

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. No person shall operate a powered forklift until they have been trained.
  - B. All forklifts will be inspected prior to being used at the beginning of each shift
    - I. If the vehicle is found unsafe, it must be reported to the manager immediately
    - II. No forklift will be operated in an unsafe condition
    - III. The forklift operator must utilize the "Forklift Pre-Operation Inspection Form". These inspection forms shall be turned into the supervisor immediately following completion
  - C. Only trained and authorized employees will be permitted to operate a powered industrial truck.
  - D. All accidents involving a forklift shall be reported immediately.
  - E. Operators shall conduct an inspection of their truck and complete a pre-operation inspection form.
  - F. Seat belts shall be worn by operators at all times. Removing seat belts from a forklift is prohibited.
  - G. No person shall be permitted to stand or pass under the elevated portion of any lift truck whether loaded or empty.
  - H. Only an approved safety platform will be used to lift employees who need to perform work overhead. The platform must be securely fastened to the mast and/ or forks. A means shall be provided whereby the personnel must stay at the controls at all times when someone is on the platform.
  - I. Operators shall keep the operator's compartment free from foreign objects, oil, grease, mud, and snow to minimize the danger of slipping or stumbling.
  - J. The forklift's controls shall only be operated from the driver's seat.
  - K. The forks shall not be used to push or ram loads.
  - L. Smoking shall not be permitted on forklifts, in the battery changing area, or in the propane (LPG) refueling and tank storage area.
  - M. Fire aisles, exits, access to stairways, and fire equipment shall be kept clear.
2. Loading and Unloading
  - A. Operators shall know or approximate the weight of the load and the location of the load center and ensure the load is within the forklift's rated capacity before raising the load.
  - B. Operators shall inspect the load for stability, projections, poor stacking, damaged skids or pallets before lifting it.
  - C. Unstable or leaning stacks shall be restacked.
  - D. Loads shall be stacked no closer than 18 inches below the sprinkler heads.



- E. Weight shall never be placed on the rear of the lift truck to increase lifting capacity.
  - F. All towing shall be done from the rear of the truck utilizing the proper draw bar pin.
3. Traveling
- A. The driver shall look in the direction of travel, particularly when traveling in reverse, and always maintain a clear view of the path.
  - B. Arms and legs are prohibited from being placed between the uprights of the mast or outside the running lines of the lift truck.
  - C. The mast shall not be raised or lowered while the lift truck is traveling, nor shall the operator travel with the mast elevated.
  - D. The lift truck shall be driven with the forks low to the ground, whether loaded or unloaded.
  - E. Operators shall sound their horn whenever an object blocks their vision, when approaching blind spots such as corners, when approaching crossing aisles, when near doorways, when approaching other lift trucks, or when in pedestrian areas.
  - F. The lift truck shall be kept under control at all times.
  - G. A safe distance shall be maintained between forklifts when traveling in the same direction – approximately three lift truck lengths or 20 feet.
  - H. Other lift trucks traveling in the same direction at intersections, blind spots, and other dangerous locations shall not be passed.
  - I. The lift truck shall be operated at speed that will permit it to be brought to a stop in a safe manner.
  - J. The driver shall slow down for wet and slippery floors.
  - K. While negotiating turns, speed shall be reduced to a safe level and the driver shall watch the rear end swing of the lift truck.
  - L. The driver slows down at cross aisles and other locations where vision is obstructed.
  - M. Drivers shall use caution when traveling from bright daylight areas to dimly lit areas, and vice versa.
  - N. The driver shall ensure that there is sufficient clearance under overhead installations, lights, pipes, sprinkler systems, etc.
  - O. Running over loose objects or holes on the road surface shall be avoided.
  - P. The operator shall travel in reverse if the load obstructs the forward view.
  - Q. Forklift operators are not permitted to carry passengers.
  - R. Operators shall give pedestrians the right of way.
  - S. The operator shall not be permitted to drive up to another person standing in front of a bench or other hard surface.
  - T. The mast shall be tilted back slightly when traveling with a load.
  - U. A safe distance shall be maintained from the edge of ramps or platforms while on elevated docks.
  - V. Eating and drinking are prohibited while driving a forklift.
  - W. Stunt driving, and horseplay are not permitted.
4. Ramps and Railroad Tracks
- A. Ramps shall be ascended or descended slowly.
  - B. When ascending or descending ramps, loaded lift trucks shall be driven with the load upgrade.
  - C. On ramps, the load shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.
  - D. Lift trucks shall be driven straight up or down ramps to prevent tipping.
  - E. When ascending a ramp with a load that obstructs the driver's view, the driver shall use a spotter if available or honk continually while slowly ascending the ramp. Once above the ramp, the driver shall immediately turn around and drive in reverse.
  - F. Railroad tracks shall be crossed diagonally whenever possible.
  - G. Lift trucks shall be parked no closer than 8 feet from the center of railroad tracks.
5. Docks
- A. Operators shall not exceed the rated capacity of the dock plate and check that it is secured before driving on it.
  - B. Operators shall check the condition of the trailer floor before entering.
  - C. Forklifts shall not be used to open or close freight doors.
  - D. Before entering a trailer, the forklift operator is responsible for ensuring that the trailer wheels are properly chocked.
  - E. The operator is responsible for ensuring the trailer has a fixed jack for support if the trailer is not coupled to a tractor.
6. Parking



- A. When a driver dismounts the lift truck, he or she shall fully lower the forks or attachment, neutralize the controls, set the parking brake, straighten the wheels, and turn off the power.
- B. Correct parking is particularly important near the edge of ramps, platforms, and docks. Parking in this case shall be done parallel with the edge.
- C. Always remove the key when a forklift is not in use.

7. Program Review at least once yearly

**TRAINING**

1. Employees
  - A. Shall receive training prior to task assignment
  - B. Shall receive training at least every 3 years
  - C. Refresher training as needed and in response to any incident
2. The training to be specific to the lift trucks operated and the hazards of the workplace in which they will be operated.
3. Periodic evaluation (at least every three years) of the operator's performance must be documented.
4. Refresher training is also required if: the operator is observed operating the lift truck in an unsafe manner, the operator is involved in an accident or near-miss incident, the operator's evaluation reveals he or she is not operating the lift truck safely, the operator assigned to a different type of lift truck, or workplace conditions change that could affect the safe operation of a lift truck.
5. Difference between powered forklift trucks and cars, and between sidewalk pedestrians and plant pedestrians
6. An operational test will be administered to each employee being trained on forklifts. At a minimum, the operational test will include:
  - A. Truck operating controls and safety devices
  - B. Attachments
  - C. Inspections
  - D. Picking up the load
  - E. Traveling
  - F. Setting the load down
  - G. Loading and unloading boxcars and highway trucks
  - H. Leaving the truck
  - I. Seat belt use
  - J. Refueling and recharging
  - K. Maintenance and repair
  - L. Hazardous materials and hazardous areas
  - M. All aspects of training must be well documented

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 10.3.1 PIT Inspection Checklist
- 10.3.2 Powered Industrial Truck Comprehensive Test
- 10.3.3 Powered Industrial Truck Test Summary



## Forklift Inspection Checklist

Check Before the Start of Each Shift

Date:
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Truck Number:	Operator:	Supervisor:
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Hour Meter Reading:	Start of Shift:	End of Shift:
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Visual Checks	Yes	No	N/A	Operational Checks	Yes	No	N/A
Tire Condition				Horn			
Head and Tail Lights				Steering			
Warning Lights				Service Brakes			
Hour Meter				Parking Brakes			
Other Gauges				Forward/Reverse Controls			
Seat Belt Condition				Lift/Tilt/Side Shift Controls			
Engine Oil Level				Reverse Warning Alarm			
Transmission Oil Level							
Radiator Water Level							
Propane Tank Securing Device & Hoses				<b>Daily Maintenance</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
Fork/Attachment Condition				Clean Engine with Compressed Air			
Mast & Overhead Guards							
Fire Extinguisher Condition							
Obvious Damage/Leaks							
Seat Anchor Bolts							

Remarks: Explain all items needing attention or repair.



## Excavations and Trenching

### PROGRAM STATEMENT

All employees engaged in operations or activities requiring entry into, or work around excavations will be properly instructed on safe work practices and protected from the hazards associated with excavation work.

### DEFINITIONS

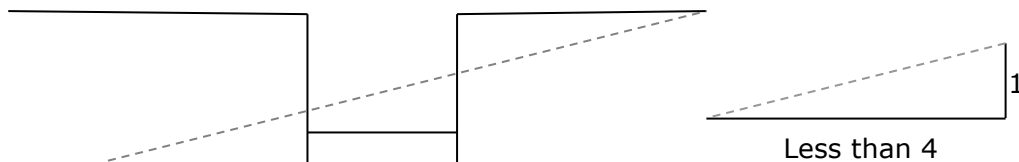
1. **Competent Person:** One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who are authorized to take prompt corrective measures to eliminate the hazards or remove the employee from the hazardous condition.
2. **Cemented soil:** A soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.
3. **Cohesive:** To stick together to form a mass.
4. **Cohesive soil:** Clay (fine grained soil) or soil with high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical side slopes, and is plastic when moist. Cohesive soil is hard to break up when dry and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.
5. **Dry soil:** Soil that does not exhibit visible signs of moisture content.
6. **Excavation:** Any man-made cut, cavity, trench, or depression in the Earth's surface formed by earth removal.
7. **Fissured:** A soil material that tends to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.
8. **Granular soil:** Gravel, sand or silt (course grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.
9. **Layered system:** Two or more distinctly different soil or rock types arranged in loose powdery layers or weak planes in rock or shale are considered layered.
10. **Moist soil:** A condition in which a soil looks or feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Most granular soil that contains some cohesive material will exhibit signs of cohesion between particles.
11. **Plastic:** a property of a soil, which allows the soil to be deformed or molded without cracking, or appreciable volume change.
12. **Saturated soil:** A soil in which the voids are filled with water. Saturation does not require low. Saturation or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or shear vane.
13. **Soil Classification System:** A method of categorizing soil and rock deposits in an order of stability Type "A", Type "B", Type "C", in a decreasing order of stability. Based on an analysis of the properties and performance characteristics of the deposits and the environmental conditions of exposure.
14. **Stable rock:** A natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.
15. **Submerged soil:** Soil, which is underwater or is free seeping.
16. **Trench:** A narrow excavation (in relation to length) made below the surface of the ground. In general, the depth of a trench is greater than its width, but the width of a trench (measured at the bottom) is not greater than 15 feet.
17. **Unconfined compressive strength:** The load per unit area at which a soil will fail in compression. It can be determined by laboratory testing or estimated in the field using a pocket penetrometer, by thumb penetration tests.
18. **Wet soil:** Soil that contains significantly more moisture than moist soil, and cohesive material will slump or begin to flow when vibrated.
19. **Solid Rock:** Rock void of any fissures, cracks and fractures and with no intermingling layers of soil. Classified as Type "B" Also. Wilkinson Electric only recognizes type "B" soil or lower.

20. Accepted engineering practices" means those requirements which are compatible with standards of practice required by a registered professional engineer.
21. Aluminum Hydraulic Shoring" means a pre-engineered shoring system comprised of aluminum hydraulic cylinders (cross braces) used in conjunction with vertical rails (uprights) or horizontal rails (wales). Such system is designed specifically to support the sidewalls of an excavation and prevent cave-ins.
22. Bell-bottom pier hole means a type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a belled shape.
23. Benching (Benching system) means a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.
24. Cave-in means the separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.
25. Competent person means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
26. Cross braces mean the horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either uprights or wales.
27. Excavation" means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.
28. Faces or sides means the vertical or inclined earth surfaces formed as a result of excavation work.
29. Failure" means the breakage, displacement, or permanent deformation of a structural member or connection so as to reduce its structural integrity and its supportive capabilities.
30. Hazardous atmosphere" means an atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.
31. Kick-out means the accidental release or failure of a cross brace.
32. Protective system" means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.
33. Ramp means an inclined walking or working surface that is used to gain access to one point from another and is constructed from earth or from structural materials such as steel or wood.
34. Registered Professional Engineer" means a person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a "registered professional engineer" within the meaning of this standard when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.
35. Sheeting means the members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system.
36. Shield (Shield system)" means a structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either premanufactured or job-built in accordance with 1926.652(c)(3) or (c)(4). Shields used in trenches are usually referred to as "trench boxes" or "trench shields."
37. Shoring (Shoring system)" means a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.
38. Sloping (Sloping system)" means a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

39. Stable rock means natural solid mineral material that can be excavated with vertical sides and will remain intact while exposed. Unstable rock is considered to be stable when the rock material on the side or sides of the excavation is secured against caving-in or movement by rock bolts or by another protective system that has been designed by a registered professional engineer.
40. Structural Ramp" means a ramp built of steel or wood, usually used for vehicle access. Ramps made of soil or rock are not considered structural ramps.
41. Support system means a structure such as underpinning, bracing, or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.
42. Tabulated data means tables and charts approved by a registered professional engineer and used to design and construct a protective system.
43. Trench box or Trench Shield – see Shield
44. Uprights: means the vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with or interconnected to each other, are often called "sheeting."
45. Wales: means horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.
46. Type A soil: Cohesive soil with unconfined, compressive strength of 1.5 ton per square foot or greater. Cohesive soils are clay, silty clay, sandy clay, and clay loam. Cemented soils like caliche and hardpan are considered Type "A" soils. Wilkinson Electric does not recognize Type "A" soil classification. All soil tested and classified as Type "A" will be reclassified as Type "B" or lower. NOTE: No soil is Type "A" if:
  - A. The soil is fissured.
  - B. The soil is subject to vibration from heavy traffic, pile driving or similar effects.
  - C. The soil has been previously disturbed.
  - D. Material that is part of a sloped, layered system where the layers dip into the excavation on a slope that is four horizontals or greater to one vertical.
  - E. The material is subject to other forces that require it to be classified as a less stable material.

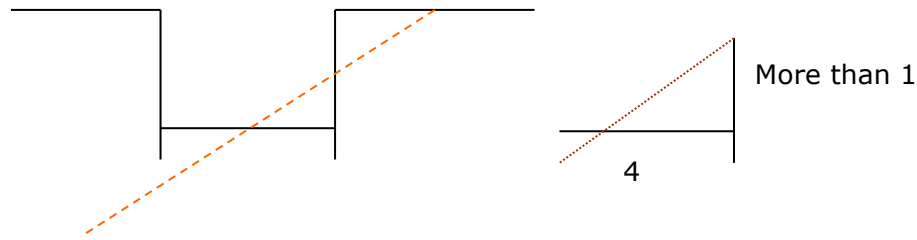


47. Type B soil: Cohesive soil with an unconfined compression strength greater than 0.5 ton per square foot but less than 1.5 ton per square foot. Granular cohesion less soils include angular gravel (crushed rock) silt, silt loam, sandy loam.
  - A. Previously disturbed soil except those classified as type C.
  - B. Soil that meets Type "A" compression strength but is fissured.
  - C. Rock that is not stable.
  - D. The soil is part of a sloped, layered system where the layers dip into the excavation on a slope less than four horizontal to one vertical.



48. Type C soil: Cohesive soil with an unconfined compressive strength of 0.5 tons per square foot or less. Granular soils including gravel, sand, and loamy sand.
  - A. Submerged soil or soil that water is freely seeping.
  - B. Submerged rock that is not stable.

- C. Material in a sloped, layered system where the layers dip into the excavation on a slope of four



## RESPONSIBILITIES

### Employee Responsibilities

- A. Wear appropriate PPE at all times while in a work zone
- B. Adhere to all program requirements
- C. No employee shall enter an excavation deeper than four (4) feet unless an adequate protective system is in place.
- D. Employees are prohibited from entering an excavation until the Competent Person has completed an inspection and a Daily Excavation Checklist along with a Soil Typing Checklist. Such an inspection must take place before the start of work each day and as necessary throughout the shift.
- E. Employees shall not work in excavations in which there is accumulated water, or which water is continually accumulating unless the proper precautions have been taken.

### Supervisor

- A. Shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulation applicable to his work environment to control
- B. Shall approve all excavating on site prior to starting work
- C. Shall ensure employees are trained prior to starting work
- D. Provide all materials needed to perform task safety
- E. Shall notify Safety Management of excavations greater than 4' deep.
- F. Registered Engineer
- G. Shall provide engineered shoring when required within this program
- H. Competent Person
- I. Shall design and inspect in accordance with this program
- J. Makes confined space determination
- K. Safety Department
- L. Shall provide training when requested

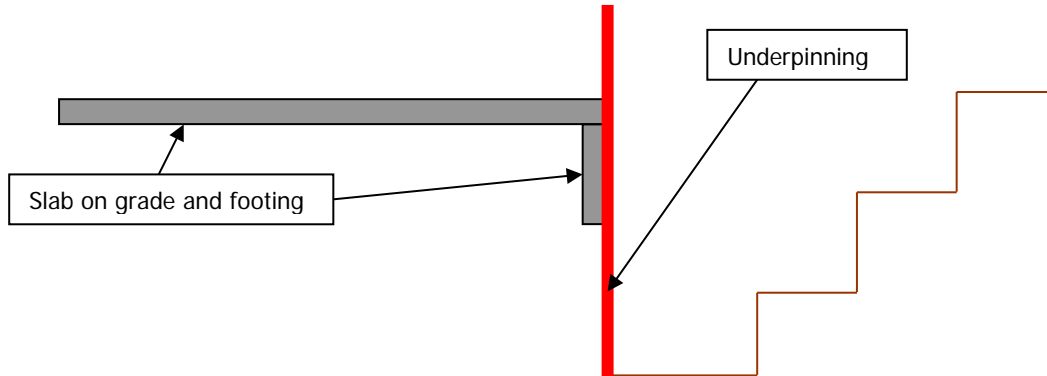
## PROGRAM REQUIREMENTS

### 1. Safe Work Practices

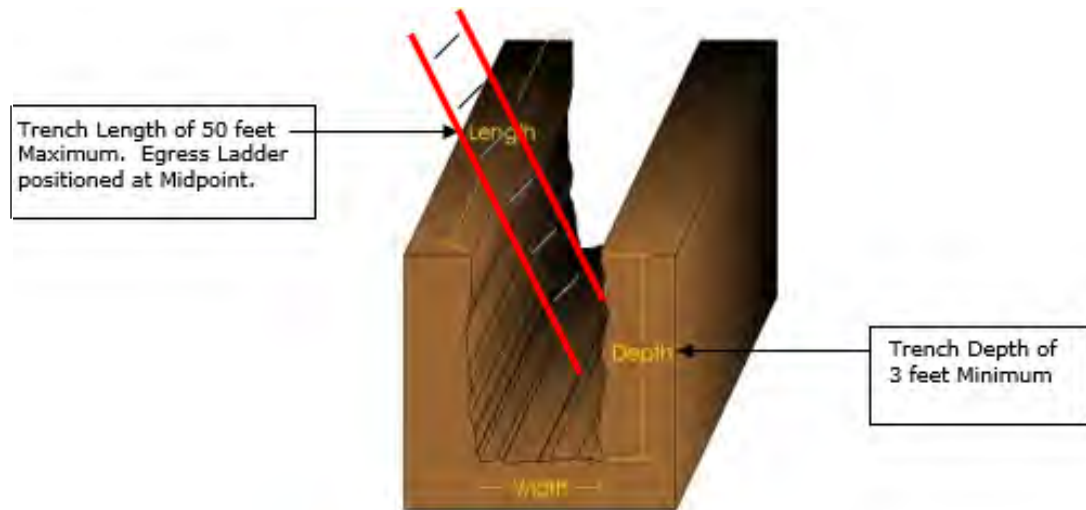
- A. The maximum depth an excavation can be is 20'-0" without a Registered Engineer's design and approval.
  - B. Shoring must be provided in all excavations over 4'-0" in depth and up to 20'-0" without a Registered Engineer's design and approval), where benching or sloping is not used.
  - C. Benching or sloping (depending on soil type) must be used for all excavations over 4'-0" in depth (and up to 20'-0" without a Registered Engineer's design and approval), where shoring is not used.
  - D. It will be necessary to call-in Safety Management when working in:
    2. A shored excavation deeper than 4'-0" in depth
- An excavation over 6'-0" and is benched or sloped.
- A. Utility companies or owners must be contacted to establish the location of the underground utility installations. Be sure you receive a confirmation number.
  - B. While the excavation is open, existing underground utility installations shall be protected, supported or removed to protect all employees from the possible structural failure of the unearthed existing utility.
  - C. All surface objects that may present a hazard to Employees by rolling or falling into an excavation shall be removed or secured. Excavated or other material and equipment shall be kept at least two (2) feet from the edge of excavations or behind retaining devices sufficient to prevent material or equipment from falling or rolling into the excavation.
  - D. Adequate barricades providing physical protection shall be provided at all excavations. All wells, pits, shafts, etc. must be barricaded or covered.
  - E. Where oxygen deficiency (less than 19.5%) or a hazardous atmosphere exists or could exist, the atmosphere in the excavation shall be tested before Employees enter excavations.
  - F. Except in stable rock, excavation below the level or base of footing of any foundation or retaining wall shall not be permitted unless the wall is underpinned, and all other precautions taken to ensure the stability of the adjacent walls and the safety of Employees involved in the work.



- G. Excavations greater than twenty (20) feet deep, Safety Management must be notified, and a Registered Professional Engineer must design and approve any support/shield systems to be used.
- H. If protective shoring equipment is going to be utilized the Safety Manager must be notified



- I. A stairway, ladder, ramp or other safe means of access and egress shall be located in excavations that are three (3) feet or more in depth, so as to require no more than twenty-five (25) feet of linear travel for employees.
  - I. Ladders must extend 36 inches above the point of support at the top of the excavation.
  - II. The Competent Person shall design structural ramps used solely by Employees.
  - III. Step ladders will not be used as a safe means of access or egress.



- J. All soil classifications will be Type "B" or Type "C". Although the testing of the soil could result in giving the soil a Type "A" soil classification, Wilkinson Electric will not recognize the soil as Type "A". Soil tested and found to have the properties of Type "A" will need to be reclassified as Type "B" or lower.

4. Subcontractors

- A. It is the responsibility of Wilkinson Electric to implement safe work practices on all projects to ensure the safety of all Employees (Wilkinson Electric and other Contractor's Employees). This safety procedure should be part of our sub-subcontract agreement to sub-subcontractors and they will be required to follow our safety procedures or (when approved by the Safety Manager) their safety procedures for excavation.

5. Inspection

- A. The Competent Person shall make inspections of excavations, the adjacent areas, and protective systems:
  - I. Before any Employees or equipment are allowed to enter an excavation.
  - II. Before the start of work each day.
  - III. Following a rainstorm or other weather-related event.
  - IV. Changing work conditions throughout the shift.

- B. The Daily Excavation Checklist is to be used to record inspection activity.
- C. The Competent Person must also determine whether the excavation is also a confined space, and what additional requirements shall apply.
- D. Where there is any evidence that indicates a possible cave-in, failure of the protective system, or other hazardous condition, employees shall be removed until the Competent Person can inspect the situation, and proper precautions have been taken.

6. Excavation Process

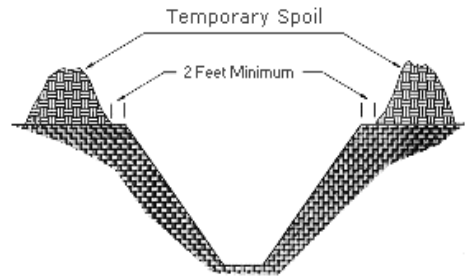
- A. All Employees will be protected with personal protective equipment for the protection of head, eyes, respiratory organs, hands, feet, and other parts of the body as required.
- B. Within 48 hours prior to opening an excavation, contact the local Underground Utility Locating services, receive the confirmation number and wait until all underground is located and marked.



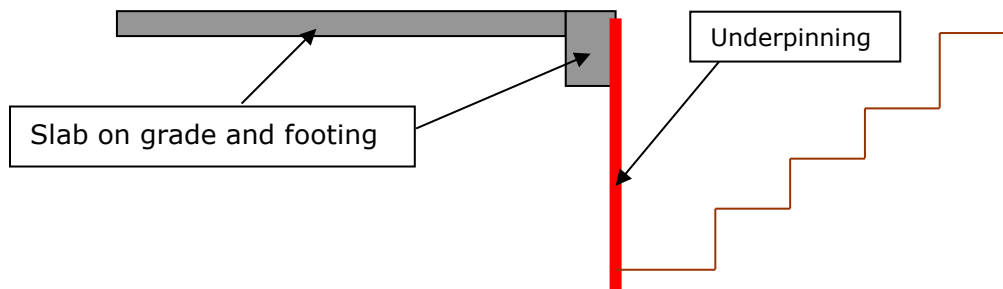
Call Local Utility Underground Locating Service



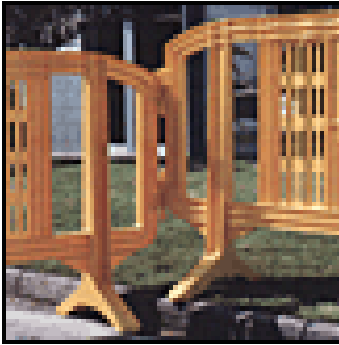
- C. While the excavation is open, existing underground utility installations shall be protected, supported or removed to safeguard Employees.
- D. Excavated or other material and equipment shall be kept at least two (2) feet from the edge of excavations or behind retaining devices sufficient to prevent material or equipment from falling or rolling into the excavation.
- E. In many instances excavations are considered confined spaces. If this is the case, all parts of both the excavation and the confined space entry procedures must be followed (See Confined Space Entry Procedure).



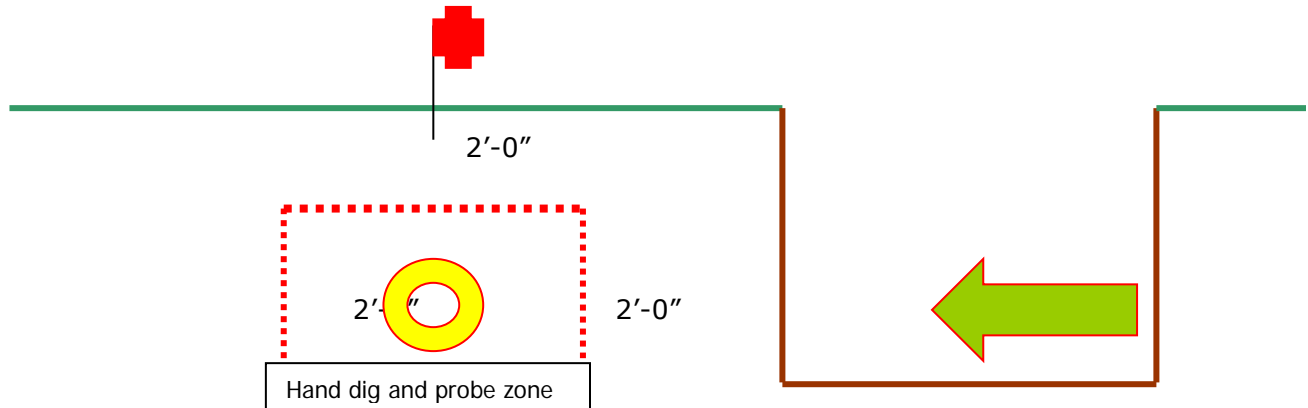
- I. Where oxygen deficiency (less than 19.5%) or a hazardous atmosphere exists or could exist, the atmosphere in the excavation shall be tested before Employees enter excavations.
- II. Adequate precautions shall be taken to prevent Employee exposure to oxygen deficiency or hazardous atmospheres. These precautions may include providing proper respiratory protection or ventilation.
- III. Periodic testing shall be conducted to ensure all potentially hazardous atmospheres remain safe.
- IV. Emergency rescue equipment such as breathing apparatus and safety harness and lifeline shall be readily available where hazardous atmospheres exist or may be expected to develop. An Attendant shall attend this equipment (See Confined Space Entry Procedure).
- V. Employees entering bell-bottom pier holes or other similar deep and confined footing excavations shall wear a harness with a lifeline securely attached. The lifeline shall be individually attended at all times.
- F. Employees shall not work in excavations in which there is accumulated water, or which water is continually accumulating unless the proper precautions have been taken.
  - I. Precautions include support or shield systems, water removal to control the level, and use of a safety harness and lifeline.
  - II. When used, a Competent Person must monitor water removal equipment.
- G. Except in stable rock, excavation below the level or base of footing of any foundation or retaining wall shall not be permitted unless the wall is underpinned, and all other precautions taken to ensure the stability of the adjacent walls and the safety of Employees involved in the work.



- H. Physical barricades must be placed around all excavations.



- I. If the Operator of mobile equipment adjacent to or near the edge of an excavation does not have a clear view of the edge of the excavation, a warning system such as barricades, stop logs, or hand signals shall be used. If possible, the grade should be sloped away from the excavation.
- J. Employees outside of excavations and exposed to vehicular traffic shall be provided with and wear reflectorized or highly visible warning vests. It will be mandatory for every employee to wear a warning vest when working within 10'-0" of a roadway, whether the roadway is active or not.
- K. No person shall be permitted under loads handled by lifting or digging equipment.
- L. All excavating work, regardless of the depth, must have the prior approval of the project Supervisor.
- M. The possibility of flammable or toxic gases settling in low places of excavations must be assessed before entering excavations or doing hot work such as welding or cutting.
- N. Where Employees or equipment are required or permitted to cross over excavations, walkways or bridges with standard guardrails shall be provided.
- O. Adequate barricades providing physical protection shall be provided at all excavations. All wells, pits, shafts, etc. shall be barricaded or covered. The covers must be able to withstand the weight of any person and or vehicle that may walk or drive over the cover.
- P. Upon completion of operations, temporary wells, pits, shafts, etc. will be promptly and adequately back filled.
- Q. Each soil and rock deposit shall be classified by the Competent Person as Type "B", or Type "C" in accordance with the definitions set forth in this safety manual and documented on Daily Excavation Checklist and Soil Typing Checklist.
- R. Soil classification by a Competent Person must be based on at least one visual and at least one manual analysis. Such analysis shall be conducted by using tests described in the soil analysis section, which was summarized from the Code of Federal Regulations (29 CFR 1926.652).
- S. A stairway, ladder, ramp or other safe means of access and egress shall be located in excavations;
  - I. Which are three (3) feet or more in depth.
  - II. No more than 25 feet of linear travel for employees.
  - III. Step ladders will not be used as a means of access or egress.
  - IV. Ladders must extend 36 inches above the point of support at the top of the excavation.



- T. If structural ramps are required, the Safety Manager will approve all ramps designed by a Competent Person
  - U. When excavating marked existing utilities probing and hand digging will be required within two (2) feet of the marked utility. Hand dig to uncover the entire existing utility.
7. Underground Utility Locating Procedure
- Many states have adopted a system to enable an excavation crew to have all existing utilities in the area of planned excavation located by calling one phone number. The procedure is as follows:
- A. Before any excavating takes place, the Supervisor shall call the state approved Utility Underground Locating service and request a utility locate for the area to be excavated.
    - I. The Supervisor must place the call at least 48 hours, but not more than 14 days before the excavating is scheduled to begin. (Excluding Saturdays, Sundays & legal holidays).
    - II. The 48-hour requirement for calling is waived for true emergencies. However, the Supervisor should make the call at the first available opportunity.
    - III. The following information shall be provided to the underground utility locating service by the Supervisor:
      - 1) Name of employee serving notice.
      - 2) Location of proposed excavation, including:
        - a) Street Address and the location of the excavation on the property.
        - b) If there is no address, an accurate description of the area with designations, side streets, roads & intersections.
        - c) Name, address & telephone number of the excavator & excavator's Division.
        - d) Excavators field phone number.
        - e) Start time, date & anticipated completion date.
  - B. Following the call to the utility underground locating service, the Supervisor shall contact others who may have utilities in the work area. This may include the client owner, General Contractor, or public utilities that are not a member of the underground utility locating service network. The contact must confirm utilities or the non-existence of utilities in the work area.
  - C. Both calls shall be logged on the Excavation One-Call Form. All information on the form shall be completed before excavating may begin.
  - D. The Supervisor must take photos/videos of the locator's markings (flags, paint, stakes, etc.) after the "locate" has been completed. The photos should have the dates imposed on them. The area to be excavated should be marked as to demonstrate its location in relationship to the utilities.
  - E. If the locator's markings remain in place for more than 10 days or they are disturbed by human acts or natural acts, a call for a re-locate must be made to the underground utility locating service. Inform them that this is a call for a re-locate & give them the reason it must be relocated.
  - F. Pre-Excavation meetings must be held prior to excavating near utilities that if struck, could cause serious injury or death, or a major interruption to life and public safety.
  - G. Should damage occur to a utility, the following steps shall be;
    - I. Remove workers & secure area for public safety.
    - II. Call 911 – If required.
    - III. Aid the injured.
    - IV. Control area according to the hazard.
    - V. Contact owner of damaged utility.
    - VI. Call One-Call Center.
    - VII. Implement Crisis Control Plan.

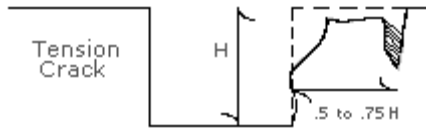
**Color Code for Marking Underground Utility Lines**

Electrical Power	Red
Gas/Oil Product Lines	Yellow
Water Systems/Slurry Pipelines	Blue
Communication Cable Television	Dark Orange
Sanitary Sewer Systems	Green
Temporary Survey Markers	Pink
Reclaimed Water	Purple
Proposed Excavation	White

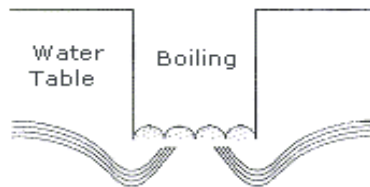
8. Soil Classification
- A. Reclassification: After classifying a deposit, the properties, factors, or conditions affecting its classification change in any way the changes shall be evaluated by a Competent Person. The material shall be reclassified to reflect the changes. Visual analysis is conducted to determine qualitative

information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

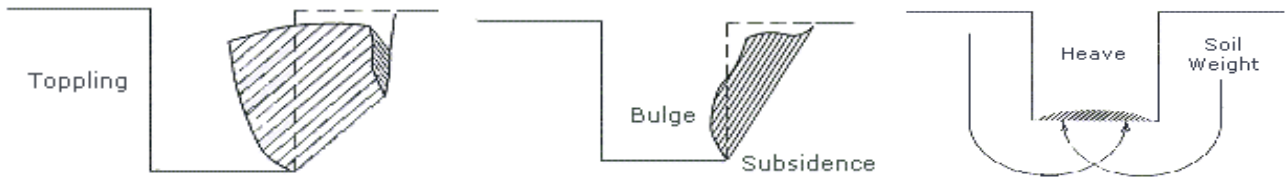
- B. Observe samples of soil that are excavated and soil in the sides of the excavation.
- C. Estimate the size, range of the particle and the relative amount of the particle sizes.
  - I. Soil that is primarily composed of fine-grained material is cohesive material.
  - II. Soil composed primarily of coarse-grained sand or gravel is granular material. If soil is clumped together, it could be cohesive - further tests will have to be done to determine that.
- D. Observe soil as it is excavated.
  - I. Soil that remains in clumps when excavated is cohesive.
  - II. Soil that breaks up easily and does not stay in clumps is granular.
- E. Observe the side of the opened excavation and the surface area adjacent to the excavation.
  - I. Crack-like openings such as tension cracks could indicate fissured material.
  - II. If chunks of soil break off a vertical side, the soil could be fissured.
  - III. Small breaks are evidence of moving ground and a potentially hazardous condition.



- F. Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.
- G. Observe the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation and estimate the degree of slope.
- H. Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seepage, or the location of the level of the water table.



- I. Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.



9. Manual analysis

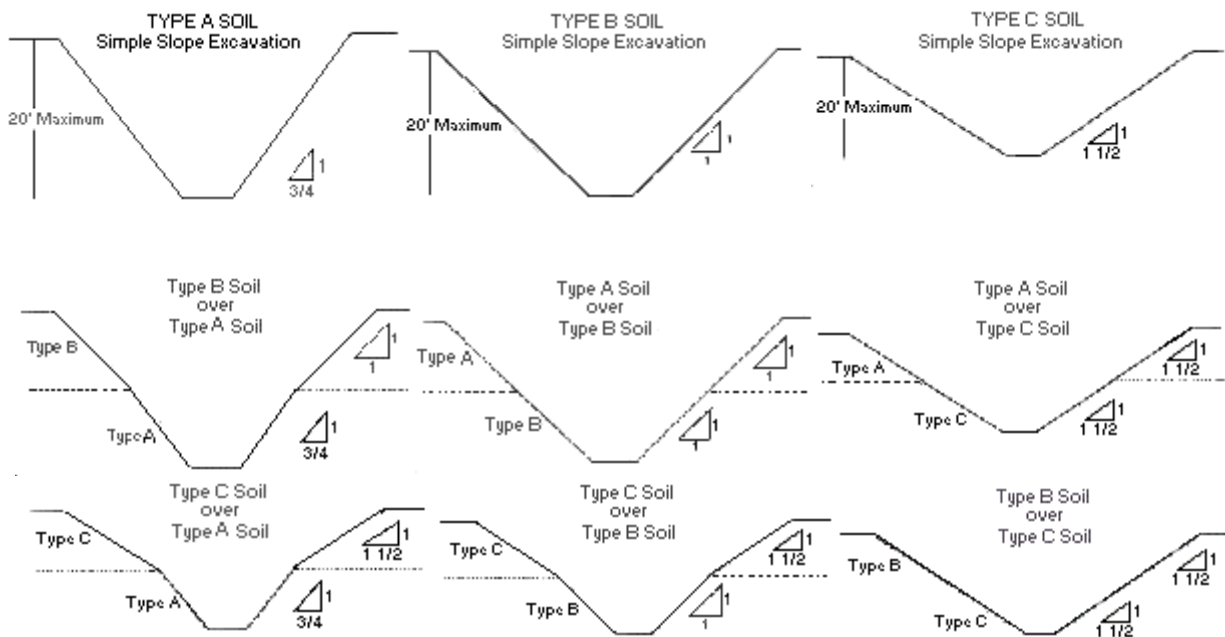
Manual tests of the soil samples are conducted to determine properties of the soil in order to classify the soil properly.

- A. Plasticity: Mold a moist or wet sample of the soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two-inch length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.
- B. Dry strength: If the soil is dry and crumbles on its own or with moderate pressure into individual grains of fine powder, it is granular, (any combination of gravel, sand or silt). If the soil is dry and falls into clumps, which break up into smaller clumps, but the clumps can only be broken up with difficulty, (clay in any combination with gravel, sand or silt). If there is no visual indication the soil is fissured, the soil may be considered un-fissured.
- C. Thumb penetration: The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. Type "A" soils can be indented by the thumb and it can be penetrated by the thumb only with great effort. Type "C" soils can be easily penetrated several inches by the thumb. This test should be conducted on an undisturbed soil sample as soon as practicable to keep the drying effects to a minimum.

- D. Other strength test can be obtained by the use of a pocket penetrometer or a hand operated shear vane.
10. Drying Test the purpose of the dry test is to differentiate between cohesive material with fissures, unfissured cohesive material and granular material. The procedure for the drying test involves drying a sample of soil one inch thick and six inches in diameter.
- A. If the sample develops cracks as it dries, significant fissures are indicated.
  - B. Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.
  - C. If a sample breaks easily by hand, it is either fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps, if the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into small fragments, the material is granular.

11. Sloping and Benching

The following are examples of how to slope and/or bench different types of excavations starting with one type of soil and then showing layered excavation and how to handle multiple soil types in one excavation.

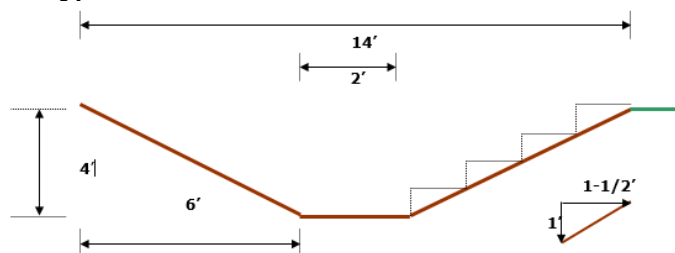


**NOTE: Wilkinson Electric does not recognize Type "A" soil classification. All soil tested and classified as Type "A" will be reclassified as Type "B" or lower.**

A. Sloping

Excavations in type C soil will be shored, shielded or sloped to form a maximum allowable slope of 1-1/2 to 1. (for every (4) four feet in depth you must excavate an additional (6) six feet in width).

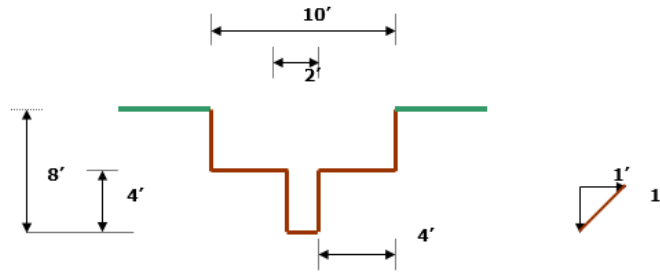
**NOTE: Type "C" soil cannot be benched and must be sloped**





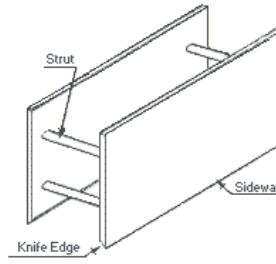
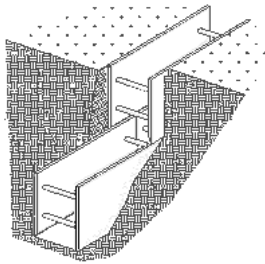
B. Benching

Excavations in any other type soil will be sloped or benched to form a maximum allowable slope of 1 to 1. (for every (4) four feet in depth you must



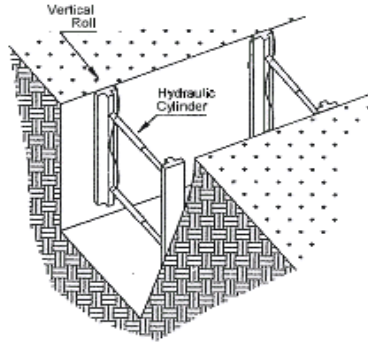
12. Protective Shielding Equipment

- A. Shielding or a trench box designed or approved by a registered professional engineer may be used as long as the protection it provides is equal to or greater than the protection provided by the appropriate shoring system.
- B. Shielding or a trench box must fit tightly in the trench to guard against shifting to one side in the event of an excavation collapse to prevent injury by pinching employees between the inner wall of the trench box and the installed work.

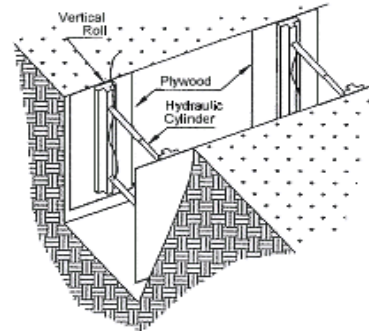


13. Protective Shoring Equipment

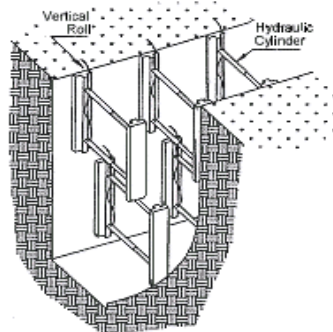
- A. Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function. Manufactured materials and equipment shall be used in a manner that is consistent with the recommendations from the manufacturer. Damaged material or equipment shall be removed from use.
- B. Members of support systems shall be securely connected together to prevent sliding, falling, kick outs or other failure.
- C. Support systems shall be installed and removed in a manner that protects employees from cave-ins, collapses, or being struck by support members. Removal shall begin at and progress from the bottom of the excavation. Members shall be released slowly so as to note any changes in the stability of the structure or excavation.
- D. Components of pre-fabricated systems must be supplied with the manufacturer seal or identification markings; these markings must remain legible.
- E. Excavations of material no greater than two (2) feet below the bottom of the support or shield systems are permitted if the system is designed to resist the forces of the full depth.
- F. Employees shall not be allowed in excavations when shields are being installed, removed, or moved.
- G. All surface objects that may present a hazard to Employees by rolling or falling into an excavation shall be removed or all excavations three (3) feet or more in depth.
- H. All excavations three (3) feet or more in depth require a safe means of access and egress.
- I. Shoring, bracing, or underpinning shall be inspected daily, or more often as conditions warrant by a Competent Person and the protection effectively maintained.
- J. Shields and/or timber shoring may be provided as a means of protection from cave-ins in excavations that do not exceed twenty (20) feet.
- K. A Registered Professional Engineer must design shields and/or timber shoring for excavations greater than four (4) feet deep.



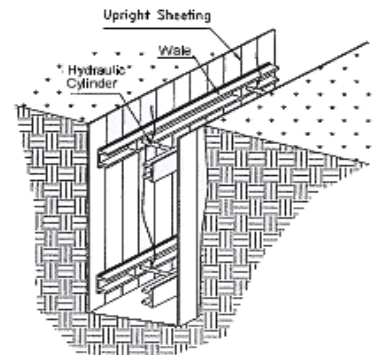
Vertical Aluminum Hydraulic Shoring  
(Spot Bracing)



Vertical Aluminum Hydraulic Shoring  
(With Plywood)



Vertical Aluminum Hydraulic Shoring  
(Stacked)



Aluminum Hydraulic Shoring Waler System  
(Typical)

14. Trench and Excavation Emergency - Protective systems designed for trenching and excavation work are only as good as the people who built them and use them. Unfortunately trenches collapse when safe work practices are ignored.

A. Trenching and excavation injuries occur when:

- I. Shoring is not installed.
- II. Shoring is not installed properly.
- III. Utilities are not properly marked.
- IV. Underground services are so old they do not show up on today's maps.
- V. The ground shifts.
- VI. The ground is vibrated.
- VII. There is a surprise thunderstorm.

B. Never enter a trench that does not have a protective system in place and following proper trenching and excavation practices will reduce your chance of injury.

15. Trench Collapse If a trench collapses you are in extreme danger. When dirt piles up during a cave-in, it can weigh as much as 3,000 pounds per cubic yard. That means that a worker buried up to the knees may be trapped. Trenches that collapse are unstable and subject to further cave-in and/or flooding.

A. If a trench collapses and someone is trapped:

- I. Stay calm and use your head.
- II. Get out of the trench.
- III. Call for emergency assistance.
- IV. Notify the Competent Person.
- V. Note the exact time of the incident.
- VI. Note the location of the trapped worker(s).
- VII. Leave any hand tools in place.
- VIII. Shut down all heavy equipment.
- IX. Stop any nearby traffic.
- X. Leave everyone at least fifty (50) feet away from the edge of the trench.
- XI. Be available to meet the rescue team.
- XII. The Supervisor or Competent Person must inform the rescue team of:



- 1) The depth of the excavation
  - 2) The soil classification
  - 3) Approximately how much soil has collapsed?
  - 4) The number of workers trapped
  - 5) How long the workers have been trapped
  - 6) The types of utilities around the trench
  - 7) Any additional hazards created by the collapse
- B. Cave-in response
- I. Do not stay in the trench. You could easily become another victim. The best thing to do is go and report the incident.
  - II. Do not attempt a rescue. By further disturbing the soil you could trigger another cave-in, trapping yourself and adding additional soil to the other victim.
  - III. Do not try and dig a cave-in victim out with heavy equipment or hand tools. You can severely injure a trapped person by using a shovel to dig them out. The weight of the soil can throw the victim into a distorted position. If you find yourself in a collapsed trench with a shovel, plant the shovel vertically near the victim and get out. The rescue team may be able to use the location of the tool to locate a worker covered with dirt.

16. Daily Excavation Checklist and Soil Typing Checklist Worksheets

The worksheets consist of two operations, first the "Daily Excavation checklist" and then the "Soil Typing Checklist".

- A. Daily Excavation Checklist: This form is used as a daily checklist to assist in reviewing the conditions in and around an excavation. Provide the information requested on the worksheet and survey each inspection requirement. Enter your initials in the appropriate box... "Yes", "No" or "N/A".
- B. Soil Typing Checklist: This form is used to determine the type soil encountered in the excavation area. Provide the information requested. Both the Visual test and the Manual test are to be used to classify the soil type. After the visual and manual tests are completed, classify the soil as Type "B" or Type "C". Remember, if the analysis merits the soil being classified as Type "A", Wilkinson Electric does not recognize the Type "A" classification and the soil will have to be classified as Type "B" or lower. List the type of protective support system to be used for the excavation.  
**\*Note:** The worksheets are only a guide to analyzing an excavation and not all excavation hazards can be pre-determined and listed. It is the responsibility of the Competent Person and the Supervisor to analyze the upcoming excavation and develop a safe work plan to protect all Employees and the Employees of other trades from cave-ins, falls, and crushing and suffocation.

17. Program shall be reviewed at least once a year

**TRAINING**

1. The Competent Person must be properly trained in the following:
  - A. Identify soil classifications.
  - B. Identify existing and potential hazards.
  - C. Develop a safe work plan using Job Hazard Analysis.
  - D. Design a safe means of access and egress.
  - E. Design barricades.
  - F. Insure benching, sloping or shoring is adequate.
  - G. Test atmosphere.
2. The Employee must demonstrate an understanding of excavation training prior to being allowed to work in an excavation.
3. Training must be documented. The Employee's name, date of training, and person conducting the training must be submitted to the Safety Manager.
4. Retraining is required if a lack of proficiency is observed, new equipment is introduced, or jobsite conditions change.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 11.1.1 Underground Utility Locator Service Notification
- 11.1.2 Excavation and Trenching Checklist
- 11.1.3 Soil Classification Checklist



### Underground Utility Locator Service Notification

Project name:		Project Number:	
Supervisor:		Manager:	
General Contractor:		Client:	
Contact:		Contact:	
Locating Service Contacted:		Telephone Number:	
Operator Name:		Date called:	Time:
Confirmation number:			
Locator Division:		Date:	Time:
Employee Name			
Were utilities present? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name types present:		
Other Utilities Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, complete the following:		
	Utility Owners:		
Contact Names:		Position:	
Contact Names:		Position:	
Were photos taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Photographer:	Date:	Time:
Were videos taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Videographer:	Date:	Time:
Notes on Drawings <input type="checkbox"/> Yes <input type="checkbox"/> No	Drawing Numbers:		
Comments:			
<b>SUPERVISOR'S SIGNATURE</b>			
Supervisor's Signature		Date	



## Daily Excavation Checklist

Project: \_\_\_\_\_ Weather: \_\_\_\_\_ Date: \_\_\_\_\_

Location of Excavation \_\_\_\_\_

Measurements of Excavation: Depth: \_\_\_\_\_ Length: \_\_\_\_\_ Width: \_\_\_\_\_

Soil Type: \_\_\_\_\_

*Reference "Soil Classification" section of the Excavation and Trenching Policy*

Types of Protective System Used: \_\_\_\_\_

### TO BE COMPLETED BY THE COMPETENT PERSON

General Inspection of the Jobsite	Yes	No	N/A
Excavations, adjacent areas, and protective systems inspected by a Competent Person daily, prior to the start of work.			
Surface objects that could cause a hazard, supported or removed (Signs, Temporary Structures, etc.)			
Is excavation protected from loose rock or soil that could pose a hazard by falling or rolling into the excavation?			
Spoils, materials, and equipment set back a minimum of 2 feet from the edge of the excavation.			
Shoring or Shielding provided at all excavations 4 feet or more in depth.			
Hardhats and protective eye wear worn by all Employees			
High visible vests provided to employees exposed to public vehicular traffic.			
Employees prohibited from working under suspended loads.			
Employees prohibited from working above other employees.			
Warning system utilized when equipment is operating near the edge of the excavation			
Barriers provided at all excavations, wells, shafts and pits.			
Comments:			
Utilities	Yes	No	N/A
Utility Division contacted, or utilities located before digging.			
Exact location of utilities marked.			
Underground installations protected, supported or removed while excavation is open.			
Hand dig and probe around existing underground utilities to fully uncover before proceeding to dig with equipment.			
Comments:			
Means of Access and Egress	Yes	No	N/A
Lateral travel distance to a ladder does not exceed 25 feet with excavations 3 or more feet in depth.			
Structural ramps used by employees designed and approved.			
Lateral travel distance to a ladder does not exceed 25 feet with excavations Ladders must extend 3 feet above the surface of the excavation.			
Employees protected from cave-ins while entering or exiting the excavation.			
Comments:			



## Soil Identification Worksheet

### Soil Analysis Checklist and Classification

This checklist must be completed when an analysis is performed to determine the soil(s) type(s) in the excavation. A separate analysis must be performed for changes in soil conditions such as layers in the excavation wall or if a trench extends into another soil type different than the one originally analyzed.

Project: _____	Weather: _____	Date: _____
Name of Excavation: _____		
Trench Measurements:	Depth: _____	Length: _____ Width: _____
Sample: Location taken from: _____	Time _____	Date: _____

#### Visual Test

<b>Particle Type:</b>	Fine Grained (Cohesive): <input style="width: 50px;" type="checkbox"/>	Course Grained (Sand or Gravel): <input style="width: 50px;" type="checkbox"/>		
<b>Water Conditions:</b>	Wet: <input style="width: 50px;" type="checkbox"/>	Dry: <input style="width: 50px;" type="checkbox"/>	Submerged: <input style="width: 50px;" type="checkbox"/>	Surface Water Present: <input style="width: 50px;" type="checkbox"/>

	Yes	No	N/A
Previously disturbed soil?			
Previously disturbed soil?			
Layered soils?			
Layered soil dipping into excavation?			
Excavation exposed to vibration?			
Any objects on the surface creating a hazard?			
Cracking or spalling?			
Potential hazardous atmosphere?			
Potential confined space?			

**Manual Test**

**Plasticity Test:** Cohesive (Sticks Together):  Non-Cohesive (Falls Apart):

**Un-confined Strength Test:** (perform test on undisturbed soil)

Indented by Thumb w/Great Difficulty:  **Type A**

Indented by Thumb w/Some Difficulty:  **Type B**

Indented by Thumb Easily:  **Type C**

**Dry Test:**

Crumbles on its Own or w/ Moderate Pressure:  **Granular**

Falls into Clumps and Broken up w/Moderate Difficulty:  **Cohesive**

**Layered Soil:**

Any Soil Type Over Type C Soil:  **Type C**

Type B Soil Over Type A Soil:  **Type B**

Type A Soil Over Type B Soil:  **Type B**

Type C soil Over Type A Soil:  **Type C and Type B**

Type C soil Over Type B Soil:  **Type C and Type B**

**Remember Mills does not recognize Type A soil classification. All Type A soil is to be reclassified as Type B or lower.**

	Yes	No	N/A
Confirmed the cohesiveness of the soil?			
Analyzed the cohesive strength of the soil?			
Analyzed the cohesive strength of each soil layer soil?			
Determined the Soil Type?			
Determined the Protective System to be used to protect Employees?			
Proper PPE for the atmosphere type, if required?			
Proper PPE for confined space, if required?			



**Protective Support System**

<b>Sloping or Benching</b>	90 Degree <input type="checkbox"/>	Benching at 45° Angle (1 Horizontal to 1 Vertical): <input type="checkbox"/>	Sloping at 34° Angle (1 1/2 Horizontal to 1 Vertical): <input type="checkbox"/>
	<b>Stable Rock</b>	<b>Type B</b>	<b>Type C</b>

<b>Shoring or Shielding</b>	Timber: <input type="checkbox"/>	Hydraulic System: <input type="checkbox"/>	Trench Box: <input type="checkbox"/>

<b>Engineered Design</b>	Not Required (4'-0" or Less): <input type="checkbox"/>	Required (Any Excavation Deeper Than 20'-0"): <input type="checkbox"/>	Required (Excavation Deeper Than 4'-0" and Not Sloped or Benched): <input type="checkbox"/>

\_\_\_\_\_  
Signature of Competent Person

\_\_\_\_\_  
Date



## Warehouse and Prefab Shop Safety Program

### PROGRAM STATEMENT

All employees engaged in work activities in and around warehouses and prefab shop areas should be properly protected from the hazards associated with this work. All employees in warehouse and pre-fab shops will comply with all safety policies and procedures that apply within the Wilkinson Electric Safety Program.

### DEFINITIONS

Not applicable at this time

### RESPONSIBILITIES

1. Employee
  - A. Maintain a safe work environment by following the program requirements
  - B. Wear task appropriate PPE
  - C. Only operate tools and equipment for which you have been trained – DO NOT OPERATE tools and/or equipment unless your training card reflects the required signatures.
  - D. Operate tools and equipment in accordance with manufacturer's guidelines
  - E. Store materials in accordance with Wilkinson Electric 12.2 Material Handling and Storage Program
2. Supervisor
  - A. Ensure employees are trained in accordance with their regular duties
  - B. Provide supervision and additional training as needed
3. Safety Department
  - A. Provide information and support equipment, lighting, and storage meet Wilkinson Electric Safety Expectations

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. Where mechanical handling equipment is used, sufficient safe clearances must be allowed for aisles, at loading docks and wherever turns or passage must be made.
  - B. Aisles and passageways must be kept clear and in good repair, with no obstruction across or in the aisles that could create a hazard.
  - C. Battery charging installations will be located in areas designated specifically for that purpose.
  - D. Compressed gas cylinders must be legibly marked, identifying the gas content, properly stored and secured with caps securely in place.
  - E. Portable fire extinguishers, where required and first aid supplies must be mounted, clearly identified and easily accessible to employees in the area and documented monthly inspections.
2. General Warehouse Requirements
  - A. All exit doors must be marked with an "Exit" sign. Every exit sign will have the word "Exit" in plain legible letters not less than six inches high, with the principal strokes of letters not less than three-fourths of an inch wide.
  - B. Exits and exit access must be arranged so all exits are readily accessible during working hours all exit doors must remain unlocked while the warehouse is occupied.
  - C. As a minimum all employees shall wear safety glasses, hardhats and leather work boots above the ankle with a designed heel from the manufacturer and a shank. Gloves shall be worn anytime an employee is handling materials or exposed to a laceration hazard.
  - D. If required by the 29 CFR 1910 standards, appropriate fire protection equipment will be adequately located within the warehouse, inspected at least monthly and documented.
  - E. Fire extinguisher signs must be posted to indicate the location of all portable fire extinguishers.
  - F. Illumination provided within the warehouse will be at an intensity of five foot-candles, at a minimum.
  - G. All vehicles must sound a horn prior to entering or exiting the warehouse.
  - H. Warehouses, prefab areas and other storage areas must be kept free from accumulation of materials that constitute hazards from tripping, slipping, fire, explosion or pest harborage. Aisles, stairways, walkways, and loading platforms must also be kept free of such material.
  - I. During the design and layout stages consideration must be given to the amount, weight, and height of material to be stored. Storage bins and shelves will be constructed accordingly. Storage areas above occupied office space must have allowable load ratings posted.
  - J. Allowable floor, shelf, and platform loadings must be determined as required in the 29 CFR 1910 standards. Floors, shelves, and platforms must be marked with allowable load ratings. Load ratings must not be exceeded.

- K. When heavy fittings or other objects are stored in bins, a strip or lip should be secured to the bottom of the bin to prevent such fittings or objects from falling-out when an object is removed.
  - L. Heavier material should be stored in lower sections of bins and shelves and the lighter material stored above.
  - M. Proper equipment (step ladders, forklift, etc.) will be made available.
  - N. A non-skid material should be provided on ramp, step, and walking surfaces to prevent the possibility of slipping.
  - O. When feasible, warehouse walkways and vehicle passageways should be marked or striped to indicate such.
  - P. Flammable materials, including paint and aerosol cans containing flammable liquids, must be stored in an approved storage cabinet.
  - Q. Large quantities of flammable and/or combustible materials must be stored outdoors in an approved storage locker.
  - R. Highly volatile materials, such as gasoline, ether, etc., will not be stored in the warehouse.
  - S. If corrosive and/or irritant products are stored inside the warehouse, a portable eyewash and safety shower must be located within the warehouse.
  - T. A complete indexed listing and copies of Safety Data Sheets (SDS's) on all stored items must be kept readily available for reference and emergency purposes. All employees shall be notified of the location and documented that they have been notified.
  - U. Warehouses and pre-fab shops located in remote areas must have some form of communication available for employee use in case of an emergency.
3. Warehouse Floor Storage Area
- A. Aisles and passageways must be kept clear for free and safe movement of material handling equipment.
  - B. Materials must not be placed within six feet of hoist way, of floor openings or within 10 feet of exterior walls, which do not extend above the top of the material stored.
  - C. Non-compatible materials must be separated in storage.
  - D. Exits must not be obstructed and must be designated with exit signs.
  - E. Aisle space must be provided to accommodate the widest vehicle that may be used inside the building for firefighting purposes. Aisle space for vehicles and/or Employees must meet all applicable Federal, state, county, and city adopted fire regulations.
  - F. The following clearance must be maintained:
    - I. 36 inches from sprinkler deflectors.
    - II. 36 inches from fire door openings.
    - III. 36 inches around the path or travel of fire doors.
4. Guidelines for Overhead Storage
- A. All Materials and equipment that is stored overhead shall be done on a safe manner so as to prevent any hazardous situation such as falling.
  - B. Standard rails must be installed on mezzanines to provide perimeter protection.
  - C. Ladder or stairways must be provided for safe access and egress.
5. Shop / Pre-Fabrication Area
- A. Ear protection must be worn in high noise areas when the noise level cannot be reduced to acceptable levels.
  - B. Minimum PPE requirements
    - I. Safety glasses
    - II. Hardhats
    - III. Safety toe leather work boots over the ankle with a designed heel from the manufacturer and having a shank shall be worn at all times
    - IV. Gloves shall be worn anytime employees are handling materials or exposed to laceration hazards or when hands and fingers could be exposed to injury
  - C. Work areas, passageways, etc., must be kept free of debris and scrap.
  - D. All exposed reciprocating, rotating, or moving parts must be guarded. Guards must never be removed from any equipment or tools, portable or stationary.
  - E. Non-current carrying metal parts of portable and plug connected equipment must be grounded.
  - F. Extension cords must be heavy-duty and three wire type
  - G. Light bulb guards are required except where the bulb is recessed.
  - H. Cable passing through a work area must be covered or elevated.
  - I. Worn or frayed electric cables must be removed from the work area until repaired.
  - J. Portable hand lamps must be of molded composition, or other type approved by the Safety Department, and is equipped with a handle and guard over the bulb.

- K. Extension cords must not be fastened with staples, hung from nails, or suspended by wire or run unprotected through metal building walls or over sharp objects.
- L. Each electrical disconnect means must be marked to indicate its purpose unless located and arranged so the purpose is evident.
- M. Boxes for disconnecting means must be securely fastened and fitted with covers and be waterproof when installed in damp or wet locations.
- N. Transformers must be provided with housing. Metallic enclosures must be grounded.
- O. Signs indicating Danger High Voltage are needed around transformers and electrical panels and equipment.
- P. Fans less than 7' above floor or work area must be provided with guards, and openings must not be larger than 1/2".
- Q. If required, fire extinguishers (Minimum rated 5 lb. ABC) shall be conspicuously located and marked. Clear access to extinguishers shall be maintained at all times. Monthly documented inspections shall be performed on all fire extinguishers.
- R. Pneumatic power operated tools must be secured to hose with positive means.
- S. Safety Data Sheets (SDS) must be available on all chemicals and other hazardous material used on the projects.
- T. All containers must be labeled and contain proper warnings in accordance with the Wilkinson Electric Hazard Communication Program.

6. Program shall be reviewed at least once a year.

#### **TRAINING**

1. Training shall be as needed or required for components of this program (HAZCOM, Fire Safety, Electrical, Material Handling, etc.)

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

Not applicable at this time.



## Material Handling and Storage Program

### PROGRAM STATEMENT

Insure technical training for all employees to be capable of handling and storing materials properly and to avoid exposing anyone to the dangers of mishandled or improperly stored materials.

### DEFINITIONS

1. Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are potentially hazardous or dangerous to Employees and who are authorized to take prompt corrective measures to eliminate the hazards or remove the employee from the hazardous condition.
2. Qualified Person: A person by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated their ability to solve or resolve problems relating to the subject matter.
3. Safety Trained: An employee trained by a Competent Person to recognize the hazards associated with material handling operations.

### RESPONSIBILITIES

1. Employees
    - A. Shall adhere to all program requirements
    - B. Shall be trained in AWP and Forklift Operation prior to use.
    - C. Shall be aware of all materials and comply with safe storage and handling for all applicable substances.
    - D. Shall inspect equipment and tools prior to use and wear appropriate PPE for the task
    - E. Shall use Safe Lifting techniques and ask for assistance with oversized or awkward to lift items
  2. Supervisor
    - A. Shall ensure employees are trained prior to their first assignment.
- Maintain SDS for each location and ensure employees receive training in accordance with all Wilkinson Electric
- B. Safety Programs
  - C. Ensure employees are trained prior to performing work requiring a forklift or AWP

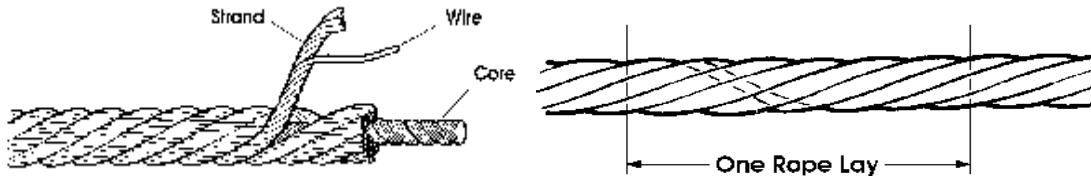
### PROGRAM REQUIREMENTS

1. Safe Work Practices the minimum requirements for materials handling and storage on any Division jobsites.
  - A. All materials must be stacked, racked, blocked, interlocked or otherwise secured to prevent sliding, falling, or collapse.
  - B. Posted maximum safe load limits, in pounds per square feet, must not be exceeded.
  - C. Keep aisles and passageways clear.
  - D. Do not place materials within 6'-0" of hoist way or floor openings, or within 10'-0" of exterior walls that do not extend above the top of the material stored.
  - E. Non-compatible materials must be separated in storage.
  - F. Before handling material with equipment, inspect all rigging equipment such as slings, chains, shackles, chain falls, come-a-longs, etc. for damage or defects. Remove defective rigging equipment from the work area immediately. Apply a red (Danger Do Not Use) tag to the defective equipment.
  - G. Use tag lines to control loads.
  - H. Load-hoisting hooks must be equipped with properly functioning safety latches.
  - I. When handling material manually, follow sound lifting practices (refer to "Lifting Safely" in this section). Before handling material or equipment manually, take a good look at the load. If it is too heavy or bulky for you to lift comfortably, get help!
  - J. Do not store excess materials on scaffolds or runways.
  - K. If combustible material has to be stored in the work area, protect the material from sparks or other potential ignition sources (see the "Fire Safety" section).
  - L. When a difference in the levels of roadway or work areas exists, means such as ramps, blocking, or grading must be used to ensure the safe movement of vehicles between the two levels.
  - M. When storing materials indoors:
    - I. Do not obstruct exits.
    - II. Do not store more than 25 gallons of flammable or combustible liquids indoors unless it is within an approved storage cabinet. A gang box is not an approved storage cabinet. (see the "Fire Safety" section).
  - N. When storing materials, the following clearances must be maintained:
    - I. 3'-0" from sprinkler deflectors.
    - II. 3'-0" from any door openings.

III. 3'-0" path of travel around all stored materials.

2. Inspection

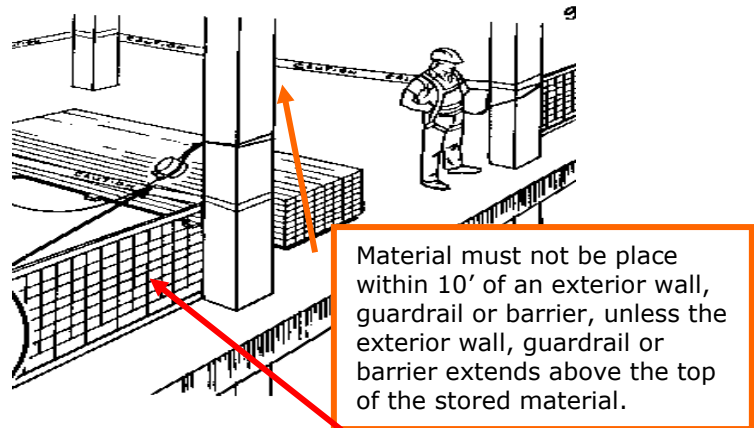
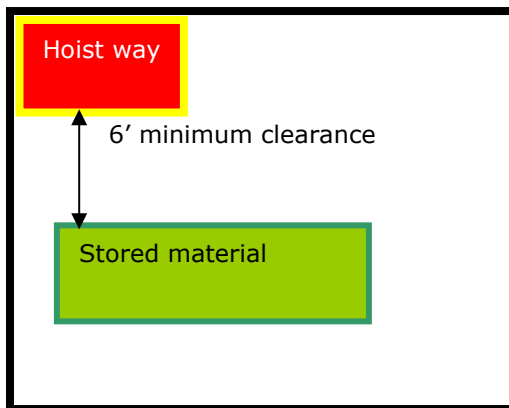
- A. Before handling material with equipment, inspect all rigging equipment such as slings, chains, shackles, chain falls, come-a-longs, etc. for damage or defects. Remove defective rigging equipment from the work area immediately. Apply a red (Danger Do Not Use) tag to the defective equipment.
- B. Check the condition of the sling and all of its fittings.
- C. When inspecting wire rope slings, check the twists or lay of the sling. If ten randomly distributed wires in one lay are broken, or five wires in one strand of a rope lay are damaged, the sling must not be used.



- D. When inspecting fiber rope or synthetic web sling, examine its surface for dry, brittle, scorched, or discolored fibers. Then check the interior of the sling, which should be as clean as when it was new. Finally, scratch the fibers with a fingernail. If the fibers come apart easily; the sling could have been exposed to a chemical or damaged and should be removed from service.
- E. Hoisting equipment must be inspected prior to each shift. Defective equipment must be red tagged (Danger Do Not Use) and removed from site for repair by a Qualified Person.
- F. Conduct work area inspections to ensure all materials have been properly stored.
- G. Conduct a pre-use inspection of forklifts. (Refer to the Forklift Pre-Use Inspection form).

3. Material Handling and Storage Procedures

- A. Aisles and passageways must be kept clear for free and safe movement of material handling equipment and Employees.
- B. Materials must not be placed within 6'-0" of hoist way or floor openings, nor within 10'-0" of exterior walls that do not extend above the top of the material stored.



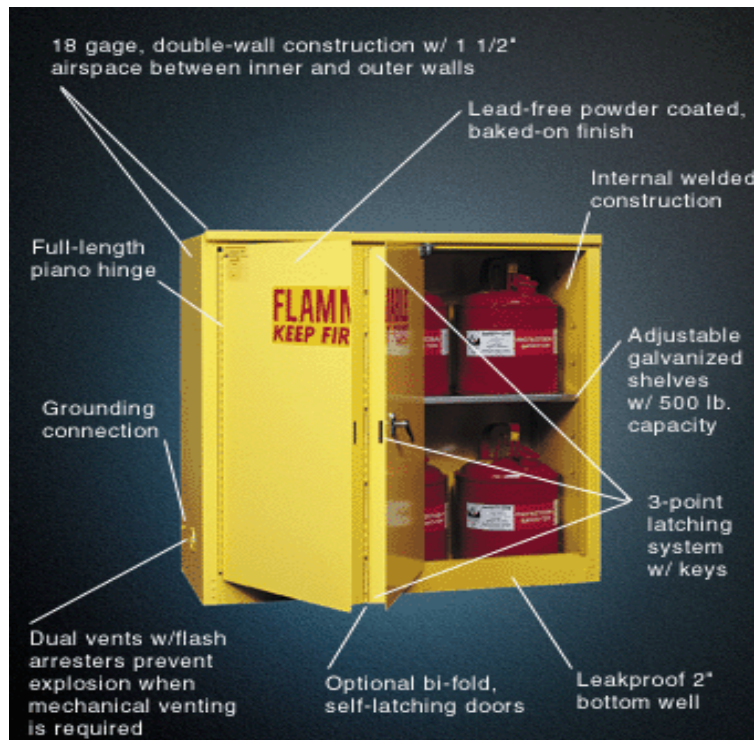
- C. Non-compatible materials must be separated in storage.
- D. All materials must be stacked, racked, blocked, interlocked or otherwise secured to prevent sliding, falling, or collapsing.
- E. Cylindrical materials, (unless racked), will be stacked and blocked.
- F. Material piles must not exceed 20'-0" in height, or 6'-0" when material is to be handled manually.

4. Indoor Storage

- A. Exits shall not be obstructed.
- B. Aisle space must be provided to accommodate the widest vehicle that may be used inside the building for firefighting purposes.
- C. The following clearances must be maintained:
  - I. 3'-0" from sprinkler deflectors



- II. 3'-0" from any door openings.
  - III. 3'-0" path of travel around all stored materials.
5. Compressed Gas Cylinder Storage
- A. Post signs designating the contents of cylinders to be stored in each rack. Example:
    - I. Oxygen
    - II. Acetylene
    - III. Liquefied petroleum gas (LPG)
  - B. Post signs designating the area a no smoking area. Example:  
**\*DANGER NO SMOKING OR OPEN FLAMES\***
  - C. A fire extinguisher rated at least 10Lb. A, B, C, should be located within sight and between 25'-0" and 75'-0" of the rack.
  - D. Storage racks must have intermediate chains or doors so that cylinders can be secured.
  - E. Oxygen cylinders in storage must be separated from fuel gas cylinders (or any combustibles - especially oil and grease). Separate by the following:
    - I. A minimum 5'-0" tall wall with a 30-minute fire resistance rating.
    - II. 20'-0" of clear space between the cylinders of non-compatible gases.
  - F. Storage is considered to be two or more cylinders.
  - G. Valve protection caps must be in place at all times when regulators or gauges are not connected.
  - H. Storage locations for cylinders must be in an area protected from damage by equipment and removed from the dangers of an ignition source. Simply chaining cylinders to a column, wall or sturdy item is not an acceptable way to store them.
6. Flammable and Combustible Liquids Storage
- A. See "Fire Safety" Section for handling and storage procedures.
  - B. All applicable Federal, state, county, and city adopted fire regulations shall be consulted to ensure compliance is achieved.
    - I. Flammable liquids have a flash point below 100° F.
    - II. Combustible liquids have a flash point above 100° F.
7. Flammable Storage Cabinet
- A. No more than 25 gallons of flammable or combustible liquid will be stored in a room outside of an approved storage cabinet.
  - B. Quantities of flammable and combustible liquids in excess of 25 gallons will be stored in an acceptable or approved cabinet meeting the following requirements:
    - I. Approved metal storage cabinet.
    - II. Cabinets must be labeled: "FLAMMABLE - KEEP FIRE AWAY"



**Flammable liquids storage cabinet**

- C. Not more than 60 gallons of flammable or 120 gallons of combustible liquid can be stored in any single storage cabinet or container and the total gallons shall not exceed the cabinet rating.
  - D. At least one portable fire extinguisher, 20 Lb. type "BC", must be located within sight and outside the storage box not more than 10'-0" from door openings to storage of more than 60 gallons of flammable or combustible liquids.
8. Dispensing and Handling Bulk Flammable Liquids (Grounding and Bonding)
- A. Build-up of static electricity charges is a dangerous source of sparks that can ignite flash fires whenever flammable liquids are being transferred or used.
  - B. In transferring liquids from drums or containers, static charges must be electrically grounded, in effect "drained off", to prevent the discharge of vapor igniting sparks.
    - I. A readily accessible connection to an earth ground is recommended. Grounding cables are then attached to each drum and left in place.
    - II. Before any metal container is filled from a drum faucet, a bonding wire fastened to the drum must be attached to that container.
9. Drip Cans  
A drip-can should be positioned below each drum faucet to catch spills or any leaking from the faucet. One-gallon sizes are adequate to provide safe capacity margin between routine emptying.
10. Drum Faucets
- A. Safety faucets, of non-sparking material, for drawing off flammable liquids from drums are self-closing and equipped with drip-proof seals.
  - B. Faucets should be Factory Mutual (FM) approved and have provisions to be padlocked to prevent unauthorized withdrawal of drum contents.
11. Drum Venting
- A. Drums of flammable liquids require venting to relieve pressure build up due to heat and also to prevent creation of a vacuum when liquid is being drained off or the drum is subject to sudden cooling. Either pressure or vacuum can cause failure of the container.
  - B. In the event of fire, the hazards of drum leakage, or explosion due to excessive pressure are possibilities.
  - C. If the drum is equipped with a Factory Mutual (FM) approved transfer pump, no auxiliary venting devices are required because automatic pressure and vacuum relief are inherent in the pump design.
12. Drum Pumps
- A. Pumping of flammable liquids from drums into safety containers is faster and provides fewer opportunities for spills and procedural errors. When pumps are used, no drip cans or separate vents in the drum are required. Always use Factory Mutual (FM) approved pumps.
  - B. The pump is installed directly in the two (2) inch drum bung opening. The drum remains in the vertical position which reduces handling time and eliminates the need for a drum cradle.
  - C. Pumps are available with either a fill hose or spout and drip tray. Pump hoses should have integral bonding wires Factory Mutual (FM) approved. Pumps with drip trays used to fill small containers require a separate bonding wire.
13. Extinguisher Rating  
A fire extinguisher with a rating of at least a 20B, C, must be located within sight and no closer than 25'-0" and no further than 75'-0" from any flammable liquids storage/ dispensing area.
14. Fuel Storage
- A. A minimum 5'-0" clearance is required between bulk fuel tanks.
  - B. Fuel storage will not exceed 660 gallons per fuel tank.
  - C. Fuel storage areas should be graded away from buildings.
  - D. The storage tank will have a spill containment system capable of holding 110% of the maximum amount of stored product to prevent soil and ground water contamination. The containment system will be equipped with closing drains to remove accumulated rainwater.
  - E. It is recommended the fuel tank and spill containment area have a metal cover to reduce the amount of accumulated rainwater in the containment area.
  - F. Tanks shall be at least 20'-0" from the nearest building.
  - G. There shall be a 12'-0" wide access within 200'-0" of each tank for firefighting equipment.
  - H. There shall be an emergency venting pipe 12'-0" above adjacent ground level.
  - I. Areas shall be free of weeds, debris, or any other combustible materials.
  - J. There shall be at least one fire extinguisher rated not less than 20Lb. Type "BC" located within sight and not less than 25'-0" or more than 75'-0" from the storage area.
  - K. Fuel storage areas should be separated 25'-0" from other operations or by a one-hour fire resistive barrier.

- L. When flammable liquids being transferred from one container to another, the containers need to be electrically bonded.
- M. Fuel storage areas shall be protected against collision damage.
- N. Tanks shall be secured and grounded.
- O. Dispensing devices and nozzles shall be of the approved type with self-closing nozzles without a latch open device. Dispensing hose must be electrically bonded.
- P. Switches to shut off the power must be provided at a location remote from dispensing devices and be clearly identified and easily accessible.
- Q. Signs which are easily visible from all approach directions must be posted and read:
- R. \*NO SMOKING OR OPEN FLAMES WITHIN 50 FEET\*
- S. Contents of tanks must be marked and labeled. Safety Data Sheets (SDS) will be maintained in accordance with the Hazard Communication Program.

#### 15. Transportation of Materials

- A. All drivers must show proof of valid driver's license.
  - I. All persons operating motorized vehicles in excess of 26,000 pounds, or transporting hazardous material, or carrying 16 or more people including the driver are required to have a commercial driver's license (CDL).
- B. Employees will not ride in the back of a truck, pickup, or dump truck transporting material. In cases where it is necessary for Employees to ride loaded vehicles, the Field Manager must approve the operation stating in writing that, in his/her opinion, it is safe for the Employees to ride.
  - I. Personal inspection of the loaded vehicle to determine the possibility of the load rolling, shifting, or tipping, is necessary.
  - II. Employees must be seated with all parts of the body within the confines of the truck.
  - III. Vehicles regularly used to transport personnel must be equipped with seats and a safe means of mounting from bed.
  - IV. Employees may mount or dismount vehicles only when vehicle is fully stopped.
  - V. No power equipment will be ridden unless provided with personnel platform with firmly secured seats and seatbelts.
  - VI. Personnel will vacate all vehicles being loaded or unloaded by a crane, backhoe, power shovel, etc. No exceptions will be made.
- C. All loads being transported must be boomed or secured to prevent rolling, sliding, tipping, etc. All loads extending beyond the bed of the truck are to be flagged with red materials. In addition, extended loads (side or back) must be identified at night by means of a red lantern or red reflector lights.
- D. Softeners should be used between surfaces where steel rides on steel.
- E. Only two people may ride in the cab of heavy trucks and only three in the cab of a pickup unless the vehicle has an extended cab.
- F. Drivers are responsible for their vehicle and passengers.
  - I. Drivers must be familiar with and comply with state and project traffic regulations.
  - II. Drivers shall not operate the vehicle unless all safety regulations are complied with.
- G. When cranes travel with loads, it is important to:
  - I. Inspect the route to ensure there are no overhead obstructions (i.e., power lines, pipe racks, etc.)
  - II. Ensure the load is securely tied to the rig to prevent swinging
  - III. Always know the weight of the load and the capacity of your rigging hardware and crane.
  - IV. No person is allowed to ride a suspended load, and do not swing or travel suspended loads over personnel.
  - V. "Shock loading" is prohibited. Check the load balance while it is only a few inches off the ground.
  - VI. Stand clear of loads about to be lifted.
  - VII. Lower loads slowly and keep hands and feet clear.
  - VIII. When unloading materials off trucks, remember to attach rigging first, then get off of the truck before giving the "go-ahead" signals.
  - IX. Immediately remove any defective rigging or equipment from the work area and apply a red (Danger Do Not Use) tag.

#### 16. Lifting Safely

- A. If you must manually lift, size up the weight of the material or equipment.
  - I. If you have a question about the safe way of picking up the load, discuss the best method of handling with your Field Manager. Remember, safe lifting starts before you pick up the load.
  - II. Take a good look at the load. If it exceeds 50 lbs. or appears too heavy or awkward for one person to lift, get help!
  - III. Use mechanical equipment whenever you can to lift loads.



hand truck



chain hoist



equipment dolly



drum truck



pallet jack

- B. If you feel that you can make the lift:
- I. Checkout the route you will follow. Choose the flattest, straightest, and cleanest route, even if it is a little longer. Move any objects you could trip over. This also applies to the unloading area.
  - II. Checkout the load. Make sure your decision to manually handle the load was a smart one.
    - 1) Is the weight stable and distributed evenly?
    - 2) Is there anything sharp or abrasive edges sticking out?
    - 3) Are you sure the load is light enough to carry alone?
  - III. Make sure your footing is secure. Get a good balance – feet shoulder length apart (8 to 12 inches).
  - IV. Stand close to the load with your feet close to the base of the object to be lifted.
  - V. This is important because it prevents the back muscles from taking the entire load.
  - VI. Bend the knees outward and straddle the load somewhat, keeping the back as straight as possible.
  - VII. Grip the load firmly with your hands, not just your fingers.
  - VIII. Now, start pushing up with your legs, using your strongest set of muscles. Keep the load close to your body as you come up, taking full advantage of the mechanical leverage your body now possesses. Lift the object to the carrying position.
  - IX. Make sure you can see where you are going. Move slowly, taking small steps.
  - X. If necessary to change your direction when in the upright position, be careful not to twist the body. Turn your body with changes of foot position.
  - XI. If you deposit the load on a bench or table, place it on the edge to make the table take part of the load and then push it forward with the arms or, with part of the body in a forward motion.
  - XII. In putting the load down to the floor surface from a waist high carrying position, bend the knees and, while keeping a straight back and holding the load close to the body, lower the load with the arm and leg muscles.
- C. Lifting or lowering from a high place:
- I. Use a platform instead of a ladder.
  - II. Lift the load in small pieces if possible.
  - III. Push up on the load to see how heavy and stable it is.
  - IV. Slide the load as close to yourself as possible before lifting.
  - V. Grip firmly and slide it down.
- D. If a load appears too heavy or awkward to comfortably lift, get help or use a mechanical device designed for material handling.
- E. If you do hurt your back, do not move. Rest until medical help arrives.

#### 17. Back Belts

18. Wilkinson Electric believes that the most effective way to prevent back injury is to reduce employee exposure to the hazards of lifting by utilizing mechanical lifting means whenever possible.

F. The Division does not recommend nor prohibit the use of back belts.

G. The Division believes the decision to use a back-support belt is a voluntary decision by the Employees.

H. A back belt is a reminder to use proper lifting techniques; not to be used to assist in actual lifting.

#### 19. Stretch and Flex Program

It is the intent of Wilkinson Electric to ensure that every precaution is taken when performing lifting procedures and while performing daily work duties under the scope of work. This program has been an integral part of the reduction of soft tissue injuries.

20. Program shall be reviewed at least once yearly with incidents related to this program

#### TRAINING

1. All Employees engaged in material handling and storage must be properly trained prior to task assignment.

2. All Employees are to complete a training course in stacking, blocking and securing loads; whether for transporting, field storage or staging.
3. Retraining is required if a lack of proficiency is observed; or if retraining is dictated by specific Division policies.

**RECORDKEEPING**

All Wilkinson Electric location shall keep and maintain their records separately and in accordance with all State and Federal Standards.

**FORMS**

12.2.1 Stretch & Flex





## Stretch-N-Flex

Stretch-N-Flex warms up the body and muscles by increasing blood flow. Stretch-N-Flex should be done prior to starting work each morning. While stretching does not prevent injuries, injury prevention is a hazard control measure. However, if an incident occurs in it can prevent or reduce the severity if an incident occurs if practiced daily and within your physical limit. Do not participate in Stretch-N-Flex if your doctor advises against it and never exceed your personal comfort level while stretching.

Employee Name (Print) \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

### FOREARM STRETCH

*stretches your wrist extensors*



Straighten your right arm. Place the palm of your left hand on the top of your right. Slowly move the right palm toward the floor until you feel a stretch. Hold for 5-8 seconds, repeat for the other arm.

### QUADRICEP STRETCH

*stretches the front of your thighs, hip flexors, and ankles*



Balance your weight on your left leg, or hold onto something that is stable to help balance yourself. With your left hand, reach behind and grab your right foot or ankle. Keep your right leg straight, with your knee pointing toward the floor. Press your hip forward to feel the stretch. Do not pull your knee up and back. Hold this position for 5-8 seconds. Repeat with other leg.

Note: if you are unable to reach your ankle, you can modify the stretch by placing your foot, bottom leg, on a bench, 5-position bar, or a similar object. 7-2 feet tall. Then proceed by pressing your legs forward until you feel the stretch.

### CHEST STRETCH

*stretches your arms, chest, hands, and shoulders*



Standing tall, interlace your fingers behind your back, with your palms facing away from your body. Slowly move your elbows in toward your spine while straightening your arms until you feel a stretch. Lift your chest up slightly as you stretch. Hold for 5-8 seconds, repeat 3-5 times.

### LOW BACK STRETCH

*stretches your chest and lower back*



Standing straight, place your hands just above your hips on your back, keeping your elbows pointed back. Gently press your hips forward, slightly lift your chest up as you hold and stretch for 5-8 seconds. Remember to breathe easily as you stretch. Repeat 5-8 times.

Note: if you feel any pain in your forearms, modify the stretch by making a fist and placing the fist on the back of your hips. This should relieve the pressure at your wrists.

### HAMSTRING STRETCH

*stretches the back of your calf and thigh*



From a standing position, move your left leg back as far as you comfortably can while keeping your left foot flat on the ground. Keep your toes pointed forward and your leg straight.

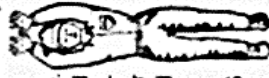
Placing both hands on your right thigh for support, slowly bend forward over your right knee, keeping your head and back straight. If this puts too much stretch on your back leg, move it forward a bit.

Hold this position for 5-8 seconds.

When finished, push upward with your arms until you are standing straight. Repeat with other leg.

### BODY STRETCH

*stretches your overall upper body*



Maintain a neutral body posture. Raise your arms over your head directly above your shoulders. Interlock your thumbs and spread your fingers. Extend your body upward and rise up on your toes.

Hold for 5-8 seconds, repeat 3-5 times.

### SHOULDER ROLLS

*stretches your upper back, neck and shoulders*



Stand tall, rotate both of your shoulders forward slowly 5-7 times. Reverse the direction, rotating your shoulders backwards 5-7 times.

### PRAYER STRETCH

*stretches your wrists, forearms and hands*



Place your hands palm-to-palm pointing up. Move your hands downward, keeping your palms together until you feel a mild stretch.

Keep your elbows up and even.

Hold for 5-8 seconds.

### INVERTED PRAYER STRETCH

*stretches your wrists, forearms and hands*



From the Prayer Stretch, rotate your hands until they point downward.

When you feel a mild stretch, stop and hold for 5-8 seconds.





## Fleet Safety Program

### PROGRAM STATEMENT

The safety and well-being of our employees is paramount and an Wilkinson Electric core value. The goal of the Fleet Safety Program is zero preventable vehicle accidents each year... this program establishes procedures to attain that goal.

### DEFINITIONS

1. Company Vehicle – Term used in this regulation to denote an Wilkinson Electric owned or leased vehicle, personal vehicle used in the course of business for which the employee is compensated in the form of a vehicle allowance or mileage reimbursement, or business related rental vehicle.
2. Driver – An employee required or compensated to operate an Wilkinson Electric vehicle, or a rental or personal vehicle on company business.
3. MVR – Motor Vehicle Record
4. Drug/Alcohol Testing – As required by the most current Wilkinson Electric Drug-Free Workplace Policy (Wilkinson Electric-DFWP).

### RESPONSIBILITIES

1. Wilkinson Electric Fleet Safety Objectives:
  - A. Provide an accident and injury-free work environment
  - B. Reduce/eliminate costs associated with vehicle accidents
  - C. Key to the success of this program is personal responsibility. Drivers and supervisors are accountable for fleet safety.
  - D. Departments at all levels are responsible for preventable accidents within their division.
  - E. Drivers shall take all reasonable efforts to eliminate preventable accidents.
  - F. If a driver is in an accident while operating a company vehicle or a personal vehicle on company business, the driver must report the accident to his or her Safety Department immediately.
  - G. If a driver is in an accident while operating a company vehicle or a personal vehicle on company business and receives a citation and/or there are other indicators the Wilkinson Electric driver was at fault, that employee is subject to the requirements of the Wilkinson Electric-DFWP. A drug screen will be performed within four (4) hours of the incident. (Ref: Wilkinson Electric DFWP, pg.5).
  - H. If a driver receives a traffic citation of any kind at any time the driver must notify their Safety Management immediately. Drivers also must report any traffic convictions or license suspensions immediately to their Safety Department. The Safety Department will make a copy of the traffic citation or other relevant documents, place it in the driver's file and take any other action as required herein or the Wilkinson Electric -DFWP.
  - I. If a driver receives a traffic citation that is drug, drug-paraphernalia or alcohol related, that driver is subject to the requirements of the Wilkinson Electric DFWP. The driver must immediately contact their Safety Department and schedule the required drug/alcohol test to be performed within four (4) hours of the incident.
  - J. It is the responsibility of the driver to wear his or her seatbelt whenever the vehicle is in motion and to ensure all passengers are wearing their seat belts before the vehicle is moved.
  - K. Drivers shall comply with this program at all times when operating a motor vehicle to conduct company business and while listed as an authorized driver to conduct company business.
  - L. Supervisors are responsible for employee's compliance with Fleet Safety Programs. Any letter of reprimand or suspension required by this policy will be accomplished by the driver's immediate supervisor in conjunction with the Division Safety Department.
  - M. Division Departments and Branch Departments are responsible for ensuring drivers meet the eligibility requirements of this policy.
  - N. Safety Departments shall:
    - I. Advise Division and Branch Departments of driver eligibility in compliance with this policy.
    - II. Maintain a driver file on each authorized driver
    - III. Pull MVRs annually (in July), pre-hire, after an accident, and upon conviction for a traffic violation
    - IV. Investigate any accident involving injury or property damage.

### PROGRAM REQUIREMENTS

The following policies and procedures apply to company vehicles.

1. Fleet Inspection & Maintenance

- A. Daily Inspections  
Drivers are responsible for conducting a visual walk-around inspection of their vehicle prior to the day's first use. Drivers shall correct any discrepancies before operating the vehicle. The driver will insure the vehicle to be operated is of the correct size and design for its intended use.
  - B. Monthly Vehicle Inspections  
Drivers will complete the Monthly Vehicle Inspection Report (included in this policy). Fleet Management will collect and maintain these reports. A vehicle with serious operational or safety defects will be repaired immediately or removed from service until repairs are completed.
  - C. Safety Decal  
All vehicles with an Wilkinson Electric logo on it shall have a safety decal – "SAFETY BEGINS HERE" on the driver's door above the door handle.
  - D. Vehicle Service Intervals  
Vehicle service intervals will be in accordance with the manufacturer's specifications.
2. Smoking Banned in Wilkinson Electric Owned or Leased Vehicle
- A. Vehicles which one or more persons use for work will be no-smoking premises and covered by the ban
  - B. The ban applies to cars, trucks, and passenger vans at all times when in use by one or more persons, as driver or passenger, in the course of paid or voluntary work – regardless of whether they are in the vehicle at the same time.
  - C. A privately-owned vehicle used occasionally for business purposes is exempt. All vehicles covered by the ban should display no-smoking signs.
3. Personal Use OF Wilkinson Electric Vehicles
- A. Wilkinson Electric vehicles are to be used only for authorized Wilkinson Electric business.
  - B. Designated employees are allowed to drive an Wilkinson Electric vehicle home at night and on weekends.
  - C. Any other personal use must be approved in writing by the Division General Department and placed in the driver's file.
  - D. The use of Wilkinson Electric vehicles is restricted to Wilkinson Electric authorized drivers only.
    - I. Non-employees such as spouses, children, other relatives, or friends are not authorized to drive Wilkinson Electric vehicles.
4. Use of Personal Vehicles for Wilkinson Electric Business  
In the normal course of business, employees may be requested to drive their personal vehicle on Wilkinson Electric business. The following applies to employees driving personal vehicles on Wilkinson Electric business:
- A. The Division / Branch Department must approve use of personal vehicles for Wilkinson Electric business.
  - B. Drivers must maintain and provide evidence of auto liability insurance meeting Wilkinson Electric coverage requirements as outlined in Section VII of the Wilkinson Electric Company Fleet Benefit Policy. This evidence will be confirmed to the Division / Branch Department by the Safety Department and placed in the driver's file.
5. Driver Eligibility
- A. New Driver The following conditions must be met:
    - I. Each prospective driver shall sign the MVR Driver Consent and other required forms in this policy. Refusal to sign these documents will result in a denial of driving privileges.
    - II. Before an employee is allowed to operate a company vehicle the following must be accomplished:
      - 1) Orientation – The Division Safety Department or designated representative shall conduct a review of the Wilkinson Electric Fleet Safety Program with the newly assigned driver. The driver must watch the Wilkinson Electric Fleet Safety Video and complete the written comprehension test scoring at least 80%.
      - 2) Valid License – The driver must present a valid driver's license from the state of residence compatible with the types of vehicles to be driven. A photocopy shall be made upon hire and retained in the driver's file. A reasonable time period as determined by the state may be granted to accommodate drivers with out-of-state licenses to become re-licensed in the current state.
      - 3) MVR Review – MVRs using a three-year history are required to verify the driver's current status. The MVR will be reviewed by the Division Safety Department to determine eligibility.
      - 4) Other Criteria – Drivers under age 21 are not authorized to:
        - a) Operate heavy vehicles or trucks
        - b) Operate vehicles placarded for transport of hazardous materials such as flammable, explosive or toxic cargo.

- B. Existing Driver
  - I. Valid License – All employees operating a company vehicle must possess a valid license appropriate for the vehicle class.
  - II. MVR Review – Annually, during the month of July, MVRs will be obtained on all authorized drivers and reviewed by the Safety Department to determine eligibility.
  - III. Drivers must meet the requirements of the Driver Eligibility Criteria MVR points section of this policy.
- 6. Process for Obtaining MVR Reports
  - A. Safety Departments shall obtain MVRs from the iiX website [www.iiX.com](http://www.iiX.com). iiX assigns points and places them on the MVR in accordance with Wilkinson Electric criteria.
  - B. The points listed on the iiX provided MVR shall be used to determine driver eligibility as listed below.
  - C. An MVR obtained from any other source will not be accepted.
- 7. Driver Eligibility Criteria
  - A. MVR point total in regard to moving violations will determine driver eligibility.
    - I. 6 or less - Employee is eligible to operate a company vehicle.
    - II. 7 through 11 – Division Department’s approval is required. The Division Safety Department will notify the driver that he/she has 30 days to successfully complete a driver improvement training course from a certified 3rd party at his/her expense. Reconsideration will be given upon presentation of a certificate of completion to the Division Safety Department. A maximum of 2 points may be deducted from the driver’s total MVR score.
    - III. 12 or more – Employee is not eligible to operate a company vehicle. An applicant for a position requiring operation of a company vehicle who is determined ineligible by MVR review cannot be hired for that position. Applicant may reapply for the driving position after his/her point total reaches an authorized level (based on dates of conviction by traffic court; 3-year history.) Fleet drivers who lose their eligibility will be subject to termination or reassignment to a non-driving position. The option of completing a driver improvement course and having 2 points deducted does not apply.
- 8. Drivers with 12 or more points
  - A. If a driver has 12 or more points associated with non-moving violations the Division General Department or Branch Department may request a variance to allow the future or current employee to operate a company or personal or rental vehicle on company business.
  - B. The “Request for Driver Eligibility” form must be submitted to and approved by the Wilkinson Electric VP, Safety and Business President.
- 9. Reinstatement of Driver Eligibility
  - A. Current employees who have been classified as ineligible to operate a company vehicle or a personal or rental vehicle on company business may request reinstatement of driving privileges after a 12 consecutive month suspension period.
  - B. The reinstatement procedure is as follows:
    - I. Employee is required to attend and complete a driver improvement training course from a reputable third party at their own expense and provide a Certificate of Completion.
    - II. Employee submits a Request to Reinstate Driver Eligibility form in this policy with a copy of the Certificate of Training to their Division Safety Department.
    - III. The Division Safety Department obtains an MVR and consults with the Division / Branch Department as to the eligibility of the driver in accordance with this policy.
    - IV. The request is sent to the Wilkinson Electric VP, Safety to review compliance with the policy and make recommendations based on possible risk and/or liability issues.
    - V. The request is sent by Wilkinson Electric SRVP, Safety to the Wilkinson Electric Group President for final determination.
- 10. Financial Responsibility for Personal Vehicles
  - A. The Wilkinson Electric fleet automobile policy does not provide liability coverage for people using personal vehicles on company business.
  - B. It does however provide coverage for employees that operate a rental vehicle on company business. Employees using their personal vehicle are responsible for all liability issues arising from operation of their vehicle.
  - C. All drivers operating a personal vehicle on Wilkinson Electric business are required to provide proof of insurance as required by the state in which the vehicle is registered and the Wilkinson Electric Company Fleet Benefit Policy.

- 11. Transportation Services
  - A. Certificate of Insurance (COI) is required prior to using any transportation vendors, in the areas of auto liability, general liability and workers' compensation insurance.
  - B. Written agreements with these vendor arrangements, such as contracts and purchase orders, will be reviewed by Wilkinson Electric Legal.
  
- 12. Administration and Recordkeeping
  - Fleet Records - Documentation shall be maintained:
    - A. Monthly Vehicle Inspection Report
    - B. Vehicle History Folder — provides a complete history of the costs of maintenance, parts, and labor associated with the vehicles.
  
- 13. Incident Review Process
  - A. The Driver is responsible for post incident reporting to their Division Safety Department.
  - B. The Division Safety Department will review all accidents to assess points and recommend disciplinary action to the Division / Branch Department.

14. Incident Classification Point System		<b>SCORE POINT</b>
A. Incident Classification		
I. <u>Non-Preventable</u> — resulted from causes beyond the control of the driver		0
II. <u>Preventable</u> — driver failed to take reasonable precautions		3
B. <u>Preventable Factors</u> — From the listing below, the Division Safety Department will add the applicable points to the 3 base points for a preventable incident to calculate the driver's point total:		
I. Driving aggressively or discourteously		1
II. Failing to reduce speed and/or be alert when approaching an intersection at which the driver was not required to yield		1
III. Failing to make proper allowance for an adverse light, road, weather, vehicle load or traffic conditions		1
IV. Operating a vehicle with defective equipment		1
V. Failing to properly adjust vehicle mirrors, seat, headrest or sun visor		1
VI. Failing to secure loose objects inside the vehicle		1
VII. Failing to heed warning labels of medications		1
VIII. Fatigue, falling asleep at the wheel		2
IX. Exceeding posted speed limit		2
X. Lack of proper type or valid license, or failing to comply with license restriction		2
XI. Failing to maintain sufficient clearance when operating vehicle		2
XII. Following too closely (tailgating)		2
XIII. Failing to signal intentions		2
XIV. Overloading vehicle or not following operating manual		2
XV. Operating vehicle in an unsafe manner		2
XVI. Improperly backing the vehicle		2
XVII. Disregarding stop signs or signals		3
XVIII. Making an improper turn, lane change or other movement errors		3
XIX. Driving on the wrong side of the road		3
XX. Failing to yield the right-of-way or other failure to yield error		3
XXI. Committing involuntary manslaughter or criminally negligent homicide		12
XXII. Reckless driving		12
XXIII. Attempting to elude a law officer, or hit/run		12
XXIV. Operating a vehicle while operator's license is suspended or revoked		12
XXV. Operating vehicles under the influence of alcohol or drugs		<u>12</u>

TOTAL POINTS \_\_\_\_\_

**Total Points    Corrective Disciplinary Action**

3 through 5    Driver will receive verbal counseling.

6 through 8    Driver will receive a letter of reprimand and may be suspended without pay for one day, must successfully complete a driver improvement course. The company does not provide or pay for this training.

- 9 through 11 Driver will receive a letter of reprimand and may be suspended without pay for two days, must successfully complete a driver improvement course. The company does not provide or pay for this training. The employee's driving privileges will be suspended until a certificate of completion is submitted to the Division Safety Department.
- 12 Plus Driver will receive a letter of reprimand, may be suspended without pay for 3 work days and will lose driving privileges for a minimum of 12 months. The Requalification section of this policy outlines the process for requesting restoration of driving privileges. The employee will either be reassigned to a non-driving position if available, or, if a non-driving position is not available, the driver will be terminated. The employee will also receive a completed copy of the MVR Notice of Adverse Action letter included in this policy.

**C. Adverse Action****I. Employee**

- 1) In the event a driver loses eligibility to operate a company vehicle, the notice of Adverse Action will be completed, and a copy given to the employee along with a copy of their MVR.
- 2) The employee has 5 business days to contact iix and dispute the MVR if they believe it to be inaccurate.
- 3) If after 5 business days the dispute remains unresolved, any disciplinary actions required will be implemented and driving privileges will be suspended as required by this policy.

**II. Applicant**

- 1) An applicant applying for a position requiring operation of a company vehicle who is determined ineligible by MVR review cannot be hired for that position.
- 2) The applicant will receive a copy of the Applicant Notice of Adverse Action and the MVR.
- 3) Applicant may reapply for the driving position after his/her point total reaches an authorized level (based on dates of conviction by traffic court; 3-year history.)

**15. Driver Eligibility List**

The Division Safety Department will maintain a current Authorized Driver List which will be distributed to Field and Project Departments. The list shall be updated at least quarterly.

16. Program Review shall occur at least once a year.

**TRAINING**

1. All employees that are approved to operate a company vehicle or a personal or rental vehicle on company business shall initially watch the Wilkinson Electric Fleet Safety and the Don't Text While Driving and successfully completed the comprehension test.
2. This training should be repeated annually and after each auto accident, regardless of who is at fault and the comprehension test placed in the driver file.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 13.1.1 MVR Notice of Adverse Action – Applicant
- 13.1.2 MVR Notice of Adverse Action – Employee
- 13.1.3 Request to Re-instate Driver Eligibility
- 13.1.4 Request for Driver Eligibility
- 13.1.5 MVR Driver Consent Form
- 13.1.6 Cell Phone Use Policy
- 13.1.7 Motor Vehicle Record Review
- 13.1.8 Wilkinson Electric Vehicle Use Agreement



## MVR Notice of Adverse Action Form

### Job Applicant

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

RE: Notice of Adverse Decision

Dear: \_\_\_\_\_

### Applicant Name

A decision is currently pending concerning your possible employment with Wilkinson Electric as an authorized driver.

We are forwarding a copy of the consumer report that you authorized in your application for employment, together with a "Summary of Rights under the Fair Credit Reporting Act." The contents of the enclosed report are currently under review in consideration of your employment. We are unable to confirm the accuracy of information contained in your employment application. Accordingly, your application has been placed on hold pending final review and determination of action.

This decision, in part, is the result of information obtained through the current insurance provider for Wilkinson Electric.

While the insurance provider provided the report, they are not able to provide you with specific reasons Wilkinson Electric made this decision. If the report contains any information that that you believe to be inaccurate or incomplete, you must contact iix to resolve discrepancies. Once the issue is resolved, Wilkinson Electric will obtain another MVR and make a final determination. You have five (5) business days from the date of this notice to contact my office with corrected information, otherwise Wilkinson Electric will assume that you no longer wish to seek employment with us.

Regards:

\_\_\_\_\_  
Division HR Manager

cc: Candidate or Driver file





## MVR Notice of Adverse Action Form

**Employee**

Name: \_\_\_\_\_

Employee Number: \_\_\_\_\_

Date: \_\_\_\_\_

To: \_\_\_\_\_

**Employee Name**

A decision is pending concerning your eligibility to operate a Wilkinson Electric company vehicle which may affect your continued employment with Wilkinson Electric.

We are forwarding a copy of the consumer report along with a "Summary of Rights under the Fair Credit Reporting Act." The contents of the enclosed report are currently under review in consideration of your driver eligibility.

With reference to your driver eligibility, we are unable to confirm the accuracy of information contained in your MVR report. Accordingly, your driving eligibility has been suspended which prohibits you from operating a Wilkinson Electric company vehicle.

This decision, in part, is the result of information obtained through the insurance provider for Wilkinson Electric.

While iix provided the report, they are not able to provide you with specific reasons Wilkinson Electric made this decision. If this report contains any information that that you believe to be inaccurate or incomplete, you must contact iix within five (5) business days to resolve any inaccuracies. Once the issue is resolved, Wilkinson Electric will obtain another MVR and make a final determination.

\_\_\_\_\_  
HR Manager\_\_\_\_\_  
Safety Manager

cc: Driver file



## Request to Re-Instate Driver Eligibility

I, \_\_\_\_\_ request reinstatement as an Wilkinson Electric Authorized Driver. Attached is a Certificate of Training to verify my successful completion of a driver improvement course.

\_\_\_\_\_  
Drivers Eligibility Suspension Date

\_\_\_\_\_  
Request Date

\_\_\_\_\_  
Division

\_\_\_\_\_  
Employee Name (Print)

\_\_\_\_\_  
Signature

**Step – 1 Division Safety Manager Review**

Date: \_\_\_\_\_

I recommend this driver be reinstated.

I DO NOT recommend this driver be reinstated.

Comments: \_\_\_\_\_

\_\_\_\_\_  
Division Safety Manager Name (Print)

\_\_\_\_\_  
Signature

**Step – 2 Division / Branch Manager Review**

Date: \_\_\_\_\_

I recommend this driver be reinstated.

I DO NOT recommend this driver be reinstated.

Comments: \_\_\_\_\_

\_\_\_\_\_  
Division / Branch Manager's Name (Print)

\_\_\_\_\_  
Signature

**Step – 3 Wilkinson Electric Vice President, Safety Approval**

I recommend this driver be reinstated.

I DO NOT recommend this driver be reinstated.

Comments: \_\_\_\_\_

\_\_\_\_\_  
Wilkinson Electric VP, Safety Signature

\_\_\_\_\_  
Date

**Step – 4 Wilkinson Electric Business Group President Approval**

I recommend this driver be reinstated.

I DO NOT recommend this driver be reinstated.

Comments: \_\_\_\_\_

\_\_\_\_\_  
Wilkinson Electric Group President Signature

\_\_\_\_\_  
Date

cc: driver's file



## Request for Driver Eligibility

I am requesting the employee identified below to be approved to operate a company vehicle or a personal or rental vehicle on company business. The employee's MVR has 12 or more points due to non-moving violations. A copy of the most current MVR is attached.

---

Drivers Name

---

Request Date

---

Division

**Step – 1 Division Safety Manager Review**

Date: \_\_\_\_\_

I recommend this driver be reinstated. I DO NOT recommend this driver be reinstated. 

Comments: \_\_\_\_\_

---

Division Safety Manager Name (Print)

---

Signature

**Step – 2 Division / General Manager Review**

Date: \_\_\_\_\_

I recommend this driver be reinstated. I DO NOT recommend this driver be reinstated. 

Comments: \_\_\_\_\_

---

Division / Branch Manager's Name (Print)

---

Signature

**Step – 3 Wilikinson Electric Vice President, Safety Approval**

Comments: \_\_\_\_\_

---

Wilikinson Electric VP, Safety Signature

---

Date

**Step – 4 Wilikinson Electric Business President Approval****Approved** **Denied** 

Comments: \_\_\_\_\_

---

Wilikinson Electric Group President Signature

---

Date

cc: Driver's file



## MVR Driver Consent Form

I have reviewed the Wilkinson Electric Fleet Safety Program, watched the Wilkinson Electric Driver Safety Video and scored at least an 80% on the written comprehension test. As the driver of a company vehicle or a personal vehicle on company business, I understand my responsibility to operate the vehicle in a safe manner and to drive defensively.

I understand that Wilkinson Electric will review my Motor Vehicle Record annually and after any vehicle accident to determine my continued eligibility as an authorized driver. In accordance with the Fair Credit Reporting Act, I have been informed that my Motor Vehicle Report will be obtained periodically for my continued employment. I give Wilkinson Electric the right to inspect my vehicle at any time.

I authorize Wilkinson Electric or its designated agent to obtain a Motor Vehicle Record report. This authorization is valid as long as I am an employee or employee candidate and may only be rescinded in writing.

---

Employee Name (Print)

---

Date of Birth

---

Driver's License Number

---

Date Issued

---

Employee Signature

---

Date

cc: Driver's file





## Cell Phone Use Policy

Employees who have access to a cellular telephone while operating a vehicle must remember the number one priority is driving safely and obeying the rules of the road. This policy does not include the use of walkie-talkies or 2-way radios used in the course of work.

1. Employees may NOT use hand held cell phones, PDAs or similar wireless devices while driving a company vehicle or driving a personal vehicle on company business unless the vehicle is equipped with a hands-free speaking device.
  - A. Employees may not initiate telephone calls while driving unless using the voice activated feature of the hands-free device.
  - B. If no hands-free device is installed, let the call go to the voice mail and answer when safely stopped.
2. Email and Text messaging are prohibited while driving a company vehicle or a personal vehicle on company business.

I, \_\_\_\_\_ have read and understood the above cellular telephone policy.

\_\_\_\_\_  
Employee (Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

cc: Driver file



## Motor Vehicle Record Review

Drivers Name: \_\_\_\_\_

DRIVERS LICENSE NUMBER and STATE ISSUED: \_\_\_\_\_

I have reviewed the driving record of the above-named employee to determine his/her eligibility to operate a company vehicle in accordance with the Wilkinson Electric Fleet Safety Program. I determine that:

- driver meets the requirements to operate an Wilkinson Electric company vehicle.
- driver DOES NOT meet the requirements to operate an Wilkinson Electric company vehicle.

\_\_\_\_\_  
Name (Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

cc: Driver file



## Wilkinson Electric Vehicle Use Agreement

1. As the driver I am responsible to wear my seatbelt and assure all passengers wear their seat belts while the vehicle is in motion. No one is allowed to ride in the back of a truck.
2. I must be properly licensed to operate the type of vehicle driven.
3. If receiving a vehicle allowance, I will provide Proof of Insurance upon hire and at the beginning of each new policy period to my Safety Manager. My vehicle insurance policy will maintain the legal limit of insurance as required by the state in which the vehicle is registered and the Wilkinson Electric Company Vehicle Benefit Policy.
4. I will notify my Safety Manager **immediately** of all accidents involving a company vehicle or a personal vehicle driven on company business
5. I will report to my Safety Manager immediately any traffic citations I receive while operating a company vehicle, a personal vehicle on company business or a personal vehicle away from work.
6. I am required to submit to a drug/alcohol test after any accidents while operating a company vehicle or a personal vehicle on company business and I will contact my Safety Manager immediately after the accident to schedule the drug/alcohol test within four (4) hours of the incident as required by the Wilkinson Electric Drug-Free Workplace Program (Revised 11/1/2013).
7. I am required to submit to a drug/alcohol test in the event I receive a drug, drug-paraphernalia or alcohol related traffic citation and I will contact my Safety Manager immediately upon receipt and submit to a drug/alcohol test within four (4) hour of the incident as required by the Wilkinson Electric Drug-Free Workplace Program (Revised 11/1/2013).
8. I will keep my Safety Manager updated on all citations and whether they result in a conviction or not.
9. I authorize Wilkinson Electric to review my MVR at will during my employment.
10. I will not operate a vehicle at any time while under the influence of alcohol or drugs.
11. I understand Wilkinson Electric may terminate this agreement at any time, for any reason.
12. If receiving a monthly vehicle allowance, my vehicle must be maintained according to Wilkinson Electric standards specified in the Wilkinson Electric Fleet Program. A completed copy of the monthly inspection report will be submitted to the Fleet Manager each month. I am responsible for all repairs to my personal owned vehicle
13. I will comply with the Wilkinson Electric Cell Phone Use Policy in the Wilkinson Electric Fleet Safety Program
14. I understand smoking is not allowed in company vehicles and will comply.
15. I will comply with all local, state, and federal laws while operating a company vehicle.
16. I am responsible for ensuring safe and secure parking for the vehicle at all times.
17. Hitchhikers are not permitted in the vehicle.
18. I am responsible for all traffic and parking violations arising from the use of company vehicles. Should Wilkinson Electric be required to pay any fine after my employment is terminated, I will reimburse Wilkinson Electric within 30 days of receiving written notice.
19. Personal use of my Wilkinson Electric vehicle must be approved by the Division / Branch Manager.
20. Division / Branch Manager approval is required to modify or accessorize a Wilkinson Electric vehicle.
21. Radar detectors are not allowed in company vehicles.
22. I will keep the inside of my vehicle clean and in orderly condition at all times.

I have read, understand, and agree to comply with the above and all conditions of the Wilkinson Electric Fleet Safety and Company Vehicle Benefit Program. I understand that if I fail to comply with these responsibilities my driving privileges may be revoked, and I may be subject to disciplinary actions including up to termination of my employment.

---

Employee Name (Print)

---

Signature

---

Date

---

Instructor Signature

cc: Driver's file



## Fleet Orientation Checklist

### Training

Incident procedures & reporting, drug screening requirements  
Score a minimum of 80% on the written comprehension test  
Use of emergency equipment

### Policy Review

Duties & Responsibilities  
Sign required forms  
Motor Vehicle Record  
Determination of preventable incidents  
Disciplinary procedures  
Driver license check & photocopy  
Proof of insurance to Branch Manager if operating personal vehicle on company business

### Pre-Trip Inspections

Exterior walk around  
Interior visual inspection  
Safety Equipment Checks  
Accident reporting kit  
Reporting discrepancies  
Securing cargo

### Emergency Equipment

Emergency Equipment  
First Aid Kit  
Fire extinguisher  
Flares or reflective triangles

### In the Event of an Accident

Call the proper authorities  
Contact your Safety Manager and Supervisor immediately  
Protect the scene to prevent further damage  
Use the incident reporting kit  
Exchange information with the other driver  
Secure names and telephone numbers of witnesses  
Take pictures with smart phone, pictures shall include 360° view both close up and distance of all vehicles and damage then send the pictures to your Safety Manager  
Complete written incident report  
Forward the completed incident report to your Safety Manager  
Submit to a drug and alcohol test within four (4) hours of the incident

---

Drivers Name (Print)

---

Drivers Signature

---

Date

---

Instructor Name (Print)

---

Instructor Signature

---

Date

cc: Driver's File





## Monthly Vehicle Inspection Form

This form must be completed and submitted monthly to the Safety or Fleet Manager for all Wilkinson Electric vehicles.

**Vehicle #:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Mileage:** \_\_\_\_\_

**Driver Name:** \_\_\_\_\_

**Supervisor:** \_\_\_\_\_

Inspection Items	OK	Problem
<b>BRAKES</b>		
A. Parking		
B. Brake Fluid		
C. Grinding / Pulling		
<b>TIRES</b>		
A. Proper Inflation		
B. Excessive Wear		
C. Spare / Inflated		
<b>ENGINE</b>		
A. Oil		
B. Transmission /Fluid		
C. Coolant		
D. Washer Fluid		
E. Fluid Leaks		
F. Exhaust System		
G. Gauges		
H. Warning Lights		
<b>GLASS</b>		
A. Wiper Blades		
B. Cleanliness		
C. Chips / Cracks		

Inspection Items	OK	Problem
<b>ELECTRICAL</b>		
A. Turn Signals		
B. Head Lights		
C. Break / Tail Lights		
D. High / Low Beams		
E. Horn		
F. Windshield Wipers		
G. Hazard Warning		
H. Interior Lights		
<b>BODY</b>		
A. Damage		
B. Mirrors (Int & Ext)		
C. Cleanliness		
D. Seatbelts		
E. ID# / LOGO / Decals		
<b>SAFETY EQUIP</b>		
A. First Aid Kit		
B. Insurance ID Card		
C. Registration		
D. Accident Forms		
E. Warning Devices		
F. Safety Sticker		
G. Fire Extinguisher*		
H. Safety Sticker "Safety Begins Here"		

Loads shall be secure and shall not exceed the manufacturer's specifications and legal limits for the vehicle.

\*Select N/A if the vehicle is not equipped with a fire extinguisher.

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Failure to submit, incomplete or falsify information on this report can result in loss of driving privileges.**

Employee Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## Fleet Accident Reporting Program

### PROGRAM STATEMENT

All company vehicle accidents involving another vehicle or property damage to other property must be reported to the Safety Manager as outlined in the below procedure.

### PROGRAM REQUIREMENTS

1. In the event of an accident the driver is required to:
  - A. Complete the attached accident reporting form
  - B. Collect the other driver and vehicle information
  - C. Draw a diagram of the accident scene, show locations of vehicle and property involved before and after the accident on page 3 of report.
  - D. Get police information and case number and be sure to give this information to the Safety manager
  - E. Use disposable camera or cell phone camera and take 10 to 15 cell phone pictures or all of the pictures on the disposable camera. Take pictures of all vehicles from different angles and the accident scene. For identification purposes include the license plate in one of the photos for each vehicle. Also take pictures of any prior damage to other vehicles or property. Submit camera or email cell phone pictures to the safety manager and get new replacement camera if the disposable camera was used.
  - F. If there is any injury to the Wilkinson Electric Driver the report of injury must also be reported to the Safety Manager to submit a report of injury and injury management.
  - G. Call accident information into your **Safety Manager ASAP**

Wilkinson Electric is insured for physical damage to our vehicles which includes single vehicle accidents with damage to only our vehicle, broken windshield claims, vandalism, damage to our vehicles from someone breaking into the vehicle and all maintenance issues. These incidents must be reported to the local Fleet Manager for handling.



**Wilkinson Electric Vehicle Accident Report**

Wilkinson Electric Policy Number: \_\_\_\_\_ Effective: \_\_\_\_\_

**DRIVER INFORMATION:**

Today's Date:		<b>Wilkinson Electric Location and Code # :</b>		Wilkinson Electric Safety Manager:	
Driver Name:			Driver License #:		Length of Employment:
Driver Address:		City:		State:	Zip: County:
Phone No.:			Cell No.:		Driver Date of Birth:
Job Title:		Used with Permission: <input type="checkbox"/> Yes <input type="checkbox"/> No		Purpose of Use:	

**Unit 1 Vehicle Information (Wilkinson Electric Vehicle):**

Vehicle No.:		Year:	Make:	Model:	VIN:
Insurance Co.:			Policy No.:		
Does the vehicle require towing? <input type="checkbox"/> Yes <input type="checkbox"/> No			Towing Location:		
Description of damage(s):					

**Unit 2 Vehicle Information:**

Owner of vehicle:			Driver of vehicle:		
Address:		Home No.:	Address:		Home No:
City:	State:	Cell No.:	City:	State:	Cell No:
Zip:	County		Zip:	County:	
Year:	Make:	Model:	Vin No.:		
Insurance Co.:			Policy No.:		
Does the vehicle require towing? <input type="checkbox"/> Yes <input type="checkbox"/> No				Towing location:	
Description of damage(s):					

**ACCIDENT INFORMATION**

Accident Date (MM/DD/YY):			Time of Accident		AM	PM
Accident location:			City:		State:	Zip Code:
Type of movement: <input type="checkbox"/> Pick-up <input type="checkbox"/> To job site <input type="checkbox"/> Delivery <input type="checkbox"/> From job site <input type="checkbox"/> Personal Time <input type="checkbox"/> Other, please explain:						
Weather Condition: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Sleet <input type="checkbox"/> Other, please explain:						
Road Surface: <input type="checkbox"/> Wet <input type="checkbox"/> Dry <input type="checkbox"/> Uneven road surface <input type="checkbox"/> Ice <input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Gravel <input type="checkbox"/> Other, please explain:						
Lanes divided? <input type="checkbox"/> Yes <input type="checkbox"/> No				Traffic control device? <input type="checkbox"/> Yes <input type="checkbox"/> No		
How many hours worked prior to accident?				How many hours of driving prior to accident?		
Give a detailed written description of accident. <b>Complete accident diagram on page 3.</b>						

**ACCIDENT INJURY INFORMATION**

1.	Name of injured party:	Telephone Number:		
Were injuries fatal? <input type="checkbox"/> Yes <input type="checkbox"/> No		Do injuries require treatment away from accident scene? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Injured party's address:		City	State	Zip Code
What vehicle was injured person in? <input type="checkbox"/> Unit 1 <input type="checkbox"/> Unit 2 <input type="checkbox"/> Unit 3 <input type="checkbox"/> Unit 4 <input type="checkbox"/> Other		If other, please explain:		
Was injured party taken to the hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No		Name of hospital:		
Give brief description of injuries:				

2.	Name of injured party:	Telephone Number:		
Were injuries fatal? <input type="checkbox"/> Yes <input type="checkbox"/> No		Do injuries require treatment away from accident scene? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Injured party's address:		City	State	Zip Code
What vehicle was injured person in? <input type="checkbox"/> Unit 1 <input type="checkbox"/> Unit 2 <input type="checkbox"/> Unit 3 <input type="checkbox"/> Unit 4 <input type="checkbox"/> Other		If other, please explain:		
Was injured party taken to the hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No		Name of hospital:		
Give brief description of injuries:				

**ADDITIONAL INFORMATION:**

Was there any property damage? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, give brief description:		
Property damage address:		City:	State:	Zip:
Were the police called? <input type="checkbox"/> Yes <input type="checkbox"/> No	Did the police respond? <input type="checkbox"/> Yes <input type="checkbox"/> No	Police report #:	Officer:	
Was a citation issued? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, to whom?			
Citation Description:				
Was drug testing administered? <input type="checkbox"/> Yes <input type="checkbox"/> No	Was alcohol testing administered? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chain of Custody No.:		
Forward a copy of the following items & place a check mark next to the item to indicate that you have sent it:				
<input type="checkbox"/> Driver logs (If DOT accident)	<input type="checkbox"/> Police Report	<input type="checkbox"/> Photos	<input type="checkbox"/> Other	

**WITNESS INFORMATION**

Name:		
Address:		
Home Phone No.:	Work Phone No.:	Cell Phone No.:

Name:		
Address:		
Home Phone No.:	Work Phone No.:	Cell Phone No.:

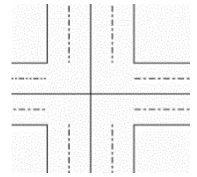
Name:		
Address:		
Home Phone No.:	Work Phone No.:	Cell Phone No.:

**DIAGRAM/ADDITIONAL COMMENTS:**

Use the Vehicle Legend to create a diagram of the accident. Label each arrow beginning with Unit 1 and place the arrow where the vehicle each vehicle by Unit # starting with Unit 1-Wilkinson Electric Vehicle

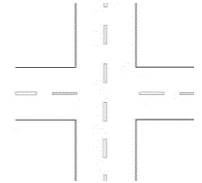
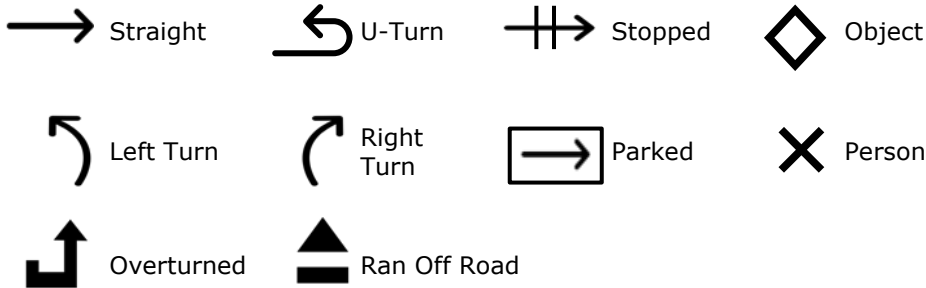
**Directions:**

1. Sketch Road – see right side of form
2. Select the type or arrow for each vehicle and appropriate icon for object or pedestrians involved
3. Place Unit # next to icons if more than one of each is identified



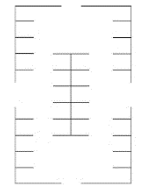
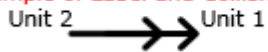
**Vehicle Legend**

Label each vehicle with an arrow and label with a Unit Number – remember Wilkinson Electric is Unit 1



Example shows: Vehicles – 2 Arrows indicating each vehicle involved in the accident (Unit 1-Wilkinson Electric & Unit 2-Other driver), Direction of travel for each vehicle, Collision was rear-ended by other vehicle while traveling West

**Example of Label and Collision Type**



**Examples of Vehicle Collision Type**

REAR END	HEAD ON	SIDESWIPE, SAME DIRECTION	SIDESWIPE, OPPOSITE DIRECTION
THROUGH WITH RIGHT	LEFT TURN, SIDESWIPE	THROUGH WITH LEFT	LEFT AND RIGHT TURN, SIDESWIPE

OVERTAKING	RIGHT TURN, REAR END	RIGHT TURN, ONCOMING	LEFT TURN, ONCOMING
LEFT TURN, REAR END	LEFT TURN, OPPOSING THRU	RIGHT ANGLE	RIGHT TURN, SIDESWIPE





## Wilkinson Electric DOT Program

### PROGRAM STATEMENT

This program establishes qualifications for employees who drive vehicles under the jurisdiction of DOT regulations on behalf of Wilkinson Electric so as to ensure that only qualified drivers operate these vehicles.

This program also establishes minimum duties of Wilkinson Electric with respect to the qualifications of their DOT drivers and program administration for the drivers of vehicles under the jurisdiction of DOT regulations. It includes the minimum requirements as established by the Federal Motor Carrier Safety Administration (FMCSA) and the United States Department of Transportation (USDOT), as well as Wilkinson Electric best practices.

The program does not include guidance from the state Department of Transportation. Individual locations shall become familiar with their state DOT requirements as they may be more stringent.

### DEFINITIONS

1. CDL Driver: Any Person who operates any DOT VEHICLE with a BVWR of 26,001 lbs. or more.
2. Commercial Driver's License (CDL): License required for driving any vehicle that has a gross vehicle weight rating (GVWR) of 26,001 lbs. or more or has a gross combination weight rating (GCWR) of 26,001 lbs. or more.
3. Comprehensive Safety Accountability (CSA):\_Safety initiative released in 2010, by FMCSA that introduces a new method of measuring safety for motor carriers and drivers. Motor carrier's safety is measured in 7 Behavioral Analysis and Safety Improvement Categories (BASICS). Violations found during roadside inspections and FMCSA interventions will be assessed a score in the Safety Measurement System.
4. Designated Employer Representative (DER):\_An individual identified by Wilkinson Electric as able to receive communications and test results from drug and alcohol testing agents and who is authorized to take immediate actions to remove employees from their duties as a DOT VEHICLE Driver and to make required decisions in the testing and evaluation processes.
5. Disqualification: By any of the following three actions:
  - A. The suspension, revocation, or cancellation of a CDL by the State or jurisdiction of issuance.
  - B. Any withdrawal of a person's privileges to drive a vehicle by a State or other jurisdiction as the result of a violation of State or local law relating to motor vehicle traffic control (other than parking, vehicle weight or vehicle defect violations)
  - C. A determination by the FMCSA that a person is not qualified to operate a vehicle under 49 CFR 391 – Qualifications of Drivers.
6. DOT Driver: Any person who operates an Wilkinson Electric vehicle that operates within the jurisdiction of the DOT regulations
7. DOT Vehicle: Any self-propelled or towed motor vehicle used on a highway in interstate commerce to transport passengers or property when the vehicle:
  - A. Has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 10,001 lbs. or more, whichever is greater; or
  - B. Is designed or used to transport more than 8 passengers (including the driver) for compensation; or
  - C. Is designed or used to transport more than 15 passengers, (including the driver), and is not used to transport passengers for compensation; or
  - D. Is used in transporting material found by the Secretary of Transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding under regulations prescribed by the Secretary under 49 CFR, subtitle B, Chapter I, sub-chapter C.
8. DOT Accident:\_An occurrence involving a DOT vehicle operating on a highway in interstate or intrastate commerce which results in:
  - A. A Fatality
  - B. Bodily injury to a person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident; or
  - C. One or more motor vehicles incurring disabling damage as a result of the accident, requiring the motor vehicles to be transported away from the scene by a tow truck or other motor vehicle.
9. Driver Vehicle Inspection Report (DVIR): A written vehicle inspection report to be prepared and signed by the driver at the completion of each day's work on the DOT vehicle operated. The DVIR must include the driver's signature preparing the report. If there are defects discovered, and it is determined that it affects the safety of the DOT vehicle, the original driver vehicle inspection report which lists any defect or deficiency that the defect or deficiency has been repaired or that repair is unnecessary before the vehicle is operated again

the motor carriers, mechanic's signature certifying the reported defects or deficiencies have been corrected or that no correction is necessary; and the reviewing driver's signature acknowledging the corrective action taken.

10. Driving Time: All time spent at the driving controls of a DOT vehicle in operation.
11. DOT Driver Qualification File (DQF):\_A recordkeeping medium such as a file folder or other filing system that is identifiable to a specific individual. A DQF may consist of several separate filing systems such as a file folder, or electronic file. All records except those requiring a signature may be maintained through the use of computer technology provided a computer printout of the required data can be provided upon demand. It is recommended that the DQF is kept separate from the employee's employment files. Certain information such as the drug / alcohol test results and previous employer information will be maintained in a secure location with controlled access such as the employee's employment files.
12. Entry-level driver: is a driver with less than one year of experience operating a DOT vehicle requiring a CDL in interstate commerce.
13. Gross combination weight rating (GCWR): means the value specified by the manufacturer as the loaded weight of a combination (articulated) motor vehicle. In the absence of a value specified by the manufacturer, GCWR will be determined by adding the GVWR of the power unit and the total weight of the towed unit and any load thereon.
14. Gross vehicle weight rating (GVWR): The value specified by the manufacturer as the loaded weight of a single motor vehicle.
15. Interstate Commerce: Trade, traffic, or transportation in the United States—
  - A. Between a place in a State and a place outside of such State (including a place outside of the United States);
  - B. Between two places in a State through another State or a place outside of the United States
  - C. Between two places in a State as part of trade, traffic, or transportation originating or terminating outside the State or the United States.
16. Intrastate Commerce: Any trade, traffic, or transportation in any State which is not described in the term "interstate commerce."
17. Medical Examiner: A person who is licensed, certified, and/or registered, in accordance with applicable State laws and regulations, to perform physical examinations. The term includes, but is not limited to, Doctor of Medicine, doctors of osteopathy, physician assistants, advanced practice nurses, and Doctor of Chiropractic.
18. Medical Review Officer (MRO): A licensed physician (Doctor of Medicine or Osteopathy). If the MRO is a licensed physician in any U.S., Canadian, or Mexican jurisdiction and meet the other requirements of §40.121, they are authorized to perform MRO services with respect to all covered employees, wherever they are located. For example, if the MRO is licensed as an M.D. in one state or province in the U.S., Canada, or Mexico, they are not limited to performing MRO functions in that state or province, and they may perform MRO functions for employees in other states or provinces without becoming licensed to practice medicine in the other jurisdictions.
19. Minor Accident: For the purposes of this procedure, a minor accident is the unforeseen or unplanned event involving a DOT vehicle and causing property damage but does not result in a "DOT Accident".
20. Motor Vehicle: Any vehicle, machine, tractor, trailer, or semi-trailer propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property, or any combination thereof determined by the Federal Motor Carrier Safety Administration, but does not include any vehicle, locomotive, or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service.
21. On Duty Time: All time from the time a driver begins work or is required to be in readiness to work until the time the driver is relieved from work and all responsibility for performing work. On duty time shall include:
  - A. All time at a plant, terminal, facility, or other property of a motor carrier or shipper, or on any public property, waiting to be dispatched, unless the driver has been relieved from duty by the motor carrier.
  - B. All time inspecting, servicing, or conditioning any motor vehicle at any time.
  - C. All driving time as defined in the term driving time.
  - D. All time, other than driving time, in or upon any DOT vehicle except time spent resting in a sleeper berth.
  - E. All time loading or unloading a DOT vehicle, supervising, or assisting in the loading or unloading, attending a DOT vehicle being loaded or unloaded, remaining in readiness to operate the DOT vehicle, or in giving or receiving receipts for shipments loaded or unloaded.

- F. All time repairing, obtaining assistance, or remaining in attendance upon a disabled DOT vehicle.
  - G. All time spent providing a breath sample or urine specimen, including travel time to and from the collection site, in order to comply with the random, reasonable suspicion, post-accident, or follow-up testing required.
20. Refuse to submit to an alcohol or controlled substance test:
- A. Fail to appear for any test (except a pre-employment test) within a reasonable time, as determined by the employer, consistent with applicable DOT agency regulations, after being directed to do so by the employer.
  - B. Fail to remain at the testing site until the testing process is complete. Provided, that an employee who leaves the testing site before the testing process commences a pre-employment test is not deemed to have refused to test.
  - C. Fail to provide a urine specimen for any drug test required by this procedure or DOT regulations. Provided, that an employee who does not provide a urine specimen because he or she has left the testing site before the testing process commences for a pre-employment test is not deemed to have refused to test.
  - D. In the case of a directly observed or monitored collection in a drug test, fails to permit the observation or monitoring of the driver's provision of a specimen.
  - E. Fail to provide a sufficient amount of urine when directed, and it has been determined, through a required medical evaluation, that there was no adequate medical explanation for the failure.
  - F. Fail or declines to take a second test the employer or collector has directed the driver to take.
  - G. Fail to undergo a medical examination or evaluation, as directed by the MRO as part of the verification process, or as directed by the DER. In the case of a pre-employment drug test, the employee is deemed to have refused to test on this basis only if the pre-employment test is conducted following a contingent offer of employment.
  - H. Fail to cooperate with any part of the testing process (e.g., refuse to empty pockets when so directed by the collector; behave in a confrontational way that disrupts the collection process).
  - I. Is reported by the MRO as having a verified adulterated or substituted test result.
21. Road Test: A test which enables a person to evaluate the driving skill of a DOT Driver to determine whether the DOT Driver possesses the skills necessary to safely operate the DOT vehicle and associated equipment that Wilkinson Electric intends them to operate.
22. Safety-sensitive function: All time from the time a DOT driver begins to work or is required to be in readiness to work until the time he/she is relieved from work and all responsibility for performing work. Safety-sensitive functions shall include:
- A. All time at an employer or shipper plant, terminal, facility, or other property, or on any public property, waiting to be dispatched, unless the driver has been relieved from duty by the employer.
  - B. All time inspecting equipment as required by the pre-trip of Driver Vehicle Inspection Report inspecting, servicing, or conditioning any DOT vehicle at any time.
  - C. All time spent at the driving controls of a DOT vehicle in operation.
  - D. All time, other than driving time, in or upon any DOT vehicle except time spent resting in a sleeper berth.
  - E. All time loading or unloading a DOT vehicle, supervising, or assisting in the loading or unloading, attending a DOT vehicle being loaded or unloaded, remaining in readiness to operate a DOT vehicle, or in giving or receiving receipts for shipments loaded or unloaded.
  - F. All time repairing, obtaining assistance, or remaining in attendance upon a disabled DOT vehicle.
23. SAP: Substance Abuse Professional.
24. USDOT: United States Department of Transportation.

## **RESPONSIBILITY**

1. Branch Manager / Supervision
  - A. Identify employees that will operate vehicles that fall under the jurisdiction of DOT regulations
  - B. Insure training is provided.
  - C. Insure only qualified drivers operate Wilkinson Electric vehicles that are under the jurisdiction of DOT regulations.
  - D. Provide information, as appropriate, concerning DOT drivers to the company Fleet Manager.
  
2. Fleet Manager

- A. Establish systems within the locations under their responsibility, to establish and maintain: DOT driver qualifications, records of duty status, DOT Driver Qualification Files, vehicle inspection and repair records to comply with this program and FMCSA regulations.
  - B. Maintain an up-to-date list of approved DOT drivers.
  - C. Help insure Wilkinson Electric DOT drivers maintain their qualifications.
  - D. Assist the Branch Manager / Supervisor with DOT driver compliance.
  - E. Monitor Safety Measurement Scores monthly at: <http://www.fmcsa.dot.gov/safety-security/sites/company-safety.htm>.
3. DOT Vehicle Driver
- A. Will drive safely and comply with applicable traffic laws, ordinances and regulations.
  - B. Will maintain a valid motor vehicle operator's license for the type of DOT vehicle they operate.
  - C. Will report all motor vehicle violations (except parking tickets), and roadside inspections to their Safety Manager within 24 hours.
  - D. Will become familiar with the Cargo Securement Regulations and determine whether the cargo being transported has been properly located, distributed, and secured in or on the DOT vehicle.
  - E. Will participate in the Wilkinson Electric DOT Drug and Alcohol Testing Program, (CDL Drivers only).
  - F. Will conduct and document a post-trip inspection using a DOT Driver Vehicle Inspection Form (DVIR) and validate the condition of the vehicle the next day by performing a pre-trip inspection of the DOT vehicle that will include review of the most recent post-trip DVIR along with the walk-around inspection of the DOT vehicle.
  - G. Will become familiar with and adhere to the guidance of this program and any applicable Wilkinson Electric procedures.

**PROGRAM REQUIREMENTS**

1. General Rules, DOT Driver Selection, and DOT Driver Qualification
  - A. A person shall not drive any vehicle covered by the DOT regulations unless qualified as defined and in compliance with this policy.
  - B. A driver who receives a notice that his/her license, permit, or privilege to operate a DOT regulated vehicle has been revoked, suspended, or withdrawn shall notify their Wilkinson Electric Safety Manager immediately.
  - C. A driver who is disqualified shall not be permitted to drive an Wilkinson Electric vehicle that is under the jurisdiction of the DOT regulations.
  - D. The DOT driver will conduct and complete a written DOT Driver Vehicle Inspection Report at the completion of their shift or workday. The driver will record all deficiencies on the DVIR and will not operate a DOT vehicle with out-of-service discrepancies.
  - E. In addition, an informal walk-around inspection (pre-trip inspection) of their DOT vehicle will be conducted at the beginning of their shift or work day.
  - F. The DOT driver will not possess more than one vehicle driver's license at a time.
  - G. All DOT drivers, CDL and non-CDL, are required to obtain a DOT Physical Exam at least every 24 months. Drivers who qualify under the exceptions listed in 391.64 may be required to obtain a medical exam more often.
  - H. Wilkinson Electric will use qualified Medical Review Officers (MRO's) and clinics that are familiar with the requirements of the FMCSA and the DOT.
  - I. A DOT Driver Qualification file will be maintained for every DOT driver and will contain the information listed in section 3.2 of this program.
  - J. A DOT driver must be able to read and speak the English language sufficiently to converse with the general public, to understand highway traffic signs and signals in the English language, to respond to official inquiries, and to make entries on reports and records. Wilkinson Electric can conduct a practical application of this requirement by conversing with them on the following subjects:
    - I. Local destinations they are expected to deliver to.
    - II. Record of duty status, on-duty time, and driving home.
    - III. Read their driver's license and identify various road signs.
    - IV. Identify vehicle components and systems regulated by the FMCSA.
    - V. Review the DVIR and other paperwork the DOT driver is expected to understand.
2. The DOT Driver Qualification Files
  - A. DOT Driver Qualification File Checklist – *attachment 8.1*. This form shall be used as a checklist to help with the orderly completion of documents for the DQF.
  - B. Driver's Application for Employment – *attachment 8.2*, (391.21). An Employment application to be completed by every applicant applying for a job as a DOT vehicle operator which requires a CDL license to

operate. The application must be completed and signed by the applicant and must contain information as outlined in 391.21. Before an application is submitted, Wilkinson Electric shall inform the applicant that the information they provide, may be used and the applicant's prior employers may be contacted for the purpose of investigating the applicant's background. This form will be maintained in the DQR for 3 years after their employment ceases with Wilkinson Electric.

- C. Fair Credit Reporting Act Disclosure Statement – *attachment 8.3*. This form helps comply with The Fair Credit Reporting Act, (Public Law 91-508) as amended by the Consumer Reporting Act of 1996 (Title II, Subtitle D, Chapter 1, of Public Law 104-208). It provides a separate disclosure statement to all job applicants for which a consumer report (driver's record) will be requested.
- D. Request to Check a Driver's Record – *attachment 8.4*, (391.23 & 391.25). Wilkinson Electric is required to investigate the driving record for the preceding 3 years of every DOT driver/applicant. The appropriate agency of every state in which the driver held a motor vehicle operator's license or permit during those 3 years will be contacted. A copy of the response by each state agency that no driving record exists for that driver must be placed in the DQF within 30 days of the date employment begins. Wilkinson Electric will obtain a driving record for every DOT driver every year the driver is employed with them. This form and all responses will be maintained in the DQF for 3 years after their employment ceases with Wilkinson Electric. The following states require their specific form be used in making such inquiries: District of Columbia, Florida, Hawaii, Idaho, Indian, Iowa, Kansas, Kentucky, Maine, Maryland, North Dakota, Rhode Island, and West Virginia.
- E. Driver's Physical Examination – (391.45) All persons driving a vehicle covered by the DOT regulations, CDL and non-CDL, are required to obtain a physical exam at least every 24 months. The exam must be made by a qualified medical examiner and shall be recorded on the prescribed form per 391.43. The medical examiner will also issue a DOT Medical Card. A DOT Medical Card is provided to the driver to be carried at all times while operating an Wilkinson Electric vehicle covered by the DOT regulations. The medical examiner's certificate and a copy of the DOT Medical Card are retained in the DQF for 3 years from the date of execution.
- F. Record and Certificate of Road Test – *attachments 8.6 and 8.7*, (391.31). A road test shall be given by a person who is competent to evaluate and determine whether the DOT driver who takes the test has demonstrated that they are capable of operating the DOT vehicle and associated equipment, that the motor carrier intends to assign to them. The person who gives the test shall rate the performance of the driver who takes it at each operation or activity which is part of the test.
  - I. After the successful completion of the *Road Test*, the person who gave the road test shall complete the Certificate of Road Test. The forms will be maintained in the DQR for 3 years after their employment with Wilkinson Electric ceases.
  - II. Entry Level Driver Training Certificate – *attachment 8.8* (380.500). Entry level driver training is training the CDL driver receives in driver qualification requirements, hours of service of drivers, driver wellness, and whistle blower protection as appropriate to the entry level driver's current position.
  - III. Pre-employment Certification of Compliance – *attachment 8.11* (383.21 & 391.11). No person who operates a DOT vehicle shall at any time have more than one driver's license.
- G. Annual Review of Driving Record and Record of Violations – *attachment 8.9* (391.27). The motor carrier will at least once every 12 months review the driving record of each DOT driver they employ to determine whether that driver meets the minimum requirements for safe driving or is disqualified to driver per 4.3.2 below and / or 391.15. At the same time, the DOT driver will furnish a list of all violations of motor traffic laws and ordinances (other than parking violations) they have been convicted of during the preceding 12 months. This review shall be signed and dated by the reviewer and may be removed from the DQF 3 years after the date of execution.
- H. Previous Employee Safety Performance History – *attachment 8.5* (391.23). Wilkinson Electric will investigate the safety performance history of every new CDL driver of their DOT – regulated employers during the preceding three years. While the investigation may consist of personal interviews, telephone interviews, letters, etc., it is strongly recommended the attached form, attachment 9-5 or a reasonable facsimile is used. A written record must be kept with respect to each previous employer contacted or the good faith efforts to contact them. This record must be placed in the DQF within 30 days of the date of the CDL driver's employment date. This form will be maintained in the DQR for 3 years after their employment with Wilkinson Electric ceases.
- I. Pre-Employment Hours of Service (7-day prior log) – *attachment 8.10* (395.8(j)(2)). When using a CDL driver for the first time, Wilkinson Electric will obtain from the driver a signed statement giving the total time on duty (including all compensated work for any employer) during the immediately preceding 7 days. This form will be retained in the DQF.



- J. DOT Drug & Alcohol Employee Certified Receipt Form – *attachment 8.14* (382.601). Every CDL Driver is required to sign a statement certifying that they received a copy of the Drug and Alcohol policies and testing requirements. This form should be maintained in the DQF.
  - K. Drug Test Results – (40.163). The Medical Review Officer is required to report all drug test results to the employer. This form must contain the information listed in 49 CFT 40.163 (c). This form is supplied by the MRO and retained in a secure file.
  - L. U.S. DOT Alcohol Testing Form – (40.225). The DOT Alcohol Testing Form must be used for every DOT alcohol test. This form is supplied by the MRO and retained in a secure file.
  - M. Federal Drug Testing Custody and Control Form – (40.45). This form must be used to document every urine collection required by the DOT drug testing program. A Non-Federal form or an expired federal form will not be used to conduct a DOT urine collection. This form is supplied by the MRO and retained in a secure file.
  - N. Observed Behavior of Reasonable Suspicion of Drug & Alcohol Use – *attachment 8.15* (382.603). A written record shall be made of observations leading to an alcohol or controlled substances reasonable suspicion test and signed by the supervisor or manager who made the observation within 24 hours of the observed behavior or before the results of the alcohol or controlled substances tests are released, whichever is earlier. This form shall be retained in a secure file.
3. Driver Qualifications and Disqualifications
- A. An Wilkinson Electric DOT driver:
    - I. Must be at least 21 years of age.
    - II. Can read and speak the English language sufficiently to converse with the general public, to understand highway traffic signs and signals in the English language, to respond to office inquiries, and make entries on reports and records.
    - III. Can by reason of experience, training, or both, safely operate the type of DOT motor vehicle he/she drives.
    - IV. Is physically qualified to drive a DOT regulated vehicle.
    - V. Has a current valid motor vehicle operator’s license issued only by one State or jurisdiction.
    - VI. Has provided a list of violations.
    - VII. Complete a road test before operating a DOT regulated vehicle or provide a copy of their CDL, which Wilkinson Electric has accepted as equivalent of a road test.
    - VIII. Must be able to pass a DOT physical exam and acquire a Medical Card.
    - IX. Is not disqualified to drive a DOT regulated vehicle as listed in 391.15 of the FMCSA.
  - B. A DOT Driver is disqualified to operate a DOT vehicle if:
    - I. They are convicted of driving a DOT vehicle while their alcohol concentration is 0.04% or more.
    - II. They are convicted of driving under the influence of alcohol, as prescribed by State law.
    - III. They refuse to undergo alcohol testing as required by any State or DOT jurisdiction in the enforcement of FMCSA Regulations (391.15) (c)(2)(i)(A) or (B), or 392.5(a)(2)).
    - IV. They are convicted of driving a DOT vehicle under the influence of a 21 CFR 1308.11, Schedule 1 identified controlled substance, an amphetamine, a narcotic drug, a formulation of an amphetamine or a derivative of a narcotic drug.
    - V. They are involved in the transportation, possession, or unlawful use of a 21 CFR 1308.11 Schedule 1 identified controlled substance, amphetamines, narcotic drugs, formulations of an amphetamine, or derivatives of narcotic drugs while the driver is on duty, as the term on-duty time is defined.
    - VI. They leave the scene of an accident (without reporting it and or waiting to be released by a police agency).
    - VII. They are convicted of a felony involving the use of a vehicle.
    - VIII. They illegally operate a DOT vehicle that was deemed to be “out of service”.
    - IX. They continue to operate a DOT vehicle with a revoked, suspended, or canceled CDL/ Motor Vehicle License.
4. Controlled Substance and Alcohol Testing Overview
- A. DOT drivers may not use, possess, distribute, manufacture, sell, or be under the influence of alcohol or illegal drugs while on company property and/or while conducting business-related activities involving operating a company vehicle.
  - B. DOT Drivers are prohibited from consuming alcohol within 4 hours of reporting to work.
  - C. CDL drivers will participate in the drug/alcohol program as described in 49 CFR Part 382.
  - D. A DOT Driver is permitted to use legally prescribed drugs only if it does not impair the driver’s ability to perform the essential functions of their job in a safe manner. If a driver is on prescription drug that will adversely affect his/her ability to perform his/her job, a doctor’s note needs to be provided explaining the duration and job duties the driver cannot perform while taking the prescription drug. Supervision may temporarily modify the CMF driver’s job duties. Such information will be kept confidential.

E. Refer to Wilkinson Electric DOT Drug and Alcohol Program.

5. Hours of Service

- A. The DOT limits the number of hours a DOT driver can work and drive. Hours of service records and/or driver daily logs need to be kept by **all drivers**.
- B. Hours of Service logs must be signed by each DOT driver.
- C. A driver is exempt from filling out a driver's daily log if **all** the following criteria are met: (Second jobs must be taken into account when determining an exemption from having to fill out a driver's daily log):
  - I. Operates within a 100 air-mile radius of the reporting location for CDL Driver or 150 air-mile for non-CDL commercial vehicle driver.
  - II. Returns to the reporting location and is released from work within 14 consecutive hours.
  - III. Has at least 10 consecutive hours off duty before driving again.
  - IV. Does not exceed 11 hours of driving time per day.
- D. The driver's supervisor must retain the following information for 6 months on all drivers exempt from filling out driver daily logs:
  - I. The time the driver reports to work each day.
  - II. The total hours the driver is on duty each day.
  - III. The time the driver is released from duty each day.
  - IV. New drivers or drivers used intermittently must fill out a 7-day Prior Hours of Service Log (must be completed by the driver). **Note:** Employee time sheets may be used to fill this requirement.
- E. Drivers who are not exempt from filling out the driver's daily log must fill out a log every day. The original must be turned into his or her supervisor or assigned person at each location and the driver must retain a copy. When on-duty, the driver must have the current log and the previous 7 days of logs. Wilkinson Electric must maintain hours of service records and driver's daily logs for 6 months. A monthly audit of logs will be performed, and corrective action taken to address deficiencies found in driver's record of duty status-either driver's log or time records.
- F. The following criteria must be followed by any driver filling out a driver's log.
  - I. Does not exceed the 11 hours of driving, without having 10 consecutive hours off duty.
  - II. Cannot drive after 14 consecutive hours on duty.
  - III. Does not have over 60 hours on duty time in 7 consecutive days (hours on duty goes to zero after 34 consecutive hours off duty).

6. Review of Driving Records.

- A. Wilkinson Electric is required to investigate the driving record for the preceding 3 years for each driver-applicant. The appropriate agency of every state in which the driver held a motor vehicle operator's license or permit during those 3 years will be contacted.
- B. A copy of the response by each state agency showing the driver is driving record or certifying that no driving record exists for that driver must be placed in the driver's qualification file within 30 days of the date employment begins.
- C. Wilkinson Electric will obtain a driving record on each driver once per year for every subsequent year of employment.
- D. Attachment 8.9, Annual Certification of Violations and Review of Driving Record will be completed annually.

7. Vehicle Inspection, Repair and Maintenance

- A. Wilkinson Electric will establish processes for systematic inspection, repair and maintenance of DOT regulated vehicles.
- B. For any DOT vehicle controlled for 30 days or more, a file will be kept with:
  - I. Identification of vehicle including Wilkinson Electric number, make and serial number, year, tire size, and name of vehicle owner if Wilkinson Electric is not the owner.
  - II. A record of nature and due date of various inspection and maintenance operations to be performed.
  - III. A record of inspection, repairs and maintenance indicating their date and nature.
  - IV. Documentation of periodic (annual) vehicle inspection reports or other documents such as a decal or sticker (14 months of records). Wilkinson Electric or their repair vendor must be able to provide evidence that mechanic is qualified to perform annual inspections and is qualified to perform brake inspections.
  - V. Original Driver Vehicle Inspection report – 90 days to include certification of repairs, and driver certification (signatures reviewing repair).
  - VI. A copy of roadside inspection reports must be maintained for 12 months.

8. Comprehensive Safety Accountability & Safety Measurement System Duties

- A. Ensure that managers and employees understand how Wilkinson Electric is measured for on-road performance by the FMCSA under CSA and the Safety Measurement System. Every inspection and violation count against Wilkinson Electric safety measurement score.
- B. Inspections and violations history must be monitored each month. Copies of roadside inspections must be retained for 1 year. Progressive discipline process will be utilized to address violations and roadside inspection deficiencies.
- C. Management team member will be provided with access codes for FMCSA Portal and A&I online in order to review BASIC scores and address safety issues. <https://portal.fmcsa.dot.gov> and <https://ai.fmcsa.dot.gov>. The MCS 150 report needs to be updated every 2 years or when there is a change in vehicle numbers or drivers. This is done via the FMCSA portal.
- D. Management team member can question incorrect data found on SMS website via <https://datags.fmcsa.dot.gov>.

**TRAINING**

1. CDL Entry Level Drivers – A driver or potential driver, with less than 1-year experience must receive training before operating a DOT VEHICLE in interstate commerce. Training for CDL drivers is outlined below. This training is in addition to passing the CDL test.
2. Driver Qualification Requirements: medical certification, medical examination procedures, general qualification, responsibilities, and disqualifications.
3. Hours of Service of Drivers: Driving hours limitations, off-duty requirements, record of duty status preparation, Part 395 exceptions, and fatigue countermeasures.
4. Driver Wellness: Basic health maintenance, including diet and exercise; importance of avoiding excessive alcohol use.
5. Whistleblower Protection: Employee’s right to question safety practices without risk of losing their job or become subject to any reprisals.
6. Wilkinson Electric must ensure that each entry level driver who first began operating a DOT vehicle requiring a CDL in interstate commerce after July 20, 2003, receives the required training as noted in 49 CFR 380.503
7. Training provider must provide a certificate/diploma to an entry level driver upon completion of training and the certificate must be placed in driver’s personnel/qualification file.
  - A. Retention of the certificate must be as long as the driver is employed and for one year thereafter.

**RECORDKEEPING**

1. A motor carrier with multiple offices or terminals may maintain the required records and documents at its principal place of business, a Divisional office, or driver work-reporting location.
2. All records and documents which are maintained at an Wilkinson Electric office or driver work-reporting location shall be made available for inspection upon request by a special agent or authorized representative of the FMCSA at the DOT vehicle’s principal place of business or other location specified by the agent or representative within 48 hours after a request is made. Saturdays, Sundays, and Federal holidays are excluded from the computation of the 48 hours period of time.
3. DOT driver’s qualification file shall be retained for as long as a driver is employed by and for three years thereafter.
4. The following records may be removed from the DOT driver’s qualification file three years after the date of execution:
  - A. The response of each State agency to the annual driver record inquiry.
  - B. The annual review of the driver’s driving record.
  - C. The list relating to violations of motor vehicle laws and ordinances required.
  - D. The medical examiners certification of the driver’s physical qualifications to drive a DOT VEHICLE or the photographic copy of the certificate.
5. The letter issued for granting a waiver of a physical disqualification.
6. The following records should be removed six months after the date of hire:
7. Pre-employment Hours of Service Form.
8. Beginning October 30, 2004, previous employer information collected under the Safety Performance History requirements must be maintained in a secure location with controlled access. This could be in the DQF, the secure drug/alcohol file, or a new file as long as the information is secure.



**FORMS**

DOT Driver's Application for Employment  
Fair Credit Reporting Act Disclosure Statement  
Request to check for driver's motor vehicle record  
Previous employee Safety Performance History  
Record of Road Test  
DOT Medical Examiners Certificate  
Copy of the DOT Medical Card  
A letter granting a waiver of a physical disqualification, if a waiver is issued  
Annual motor vehicle record  
Annual review of driving record and list of violations  
Copy of the employee's driver license (front and back)  
Pre-Employment Hours of Service (7-day prior log)  
Pre-Employment Certificate of Compliance  
Pre-Employment Drug and Alcohol Statement  
DOT Drug & Alcohol Test Notification Form  
DOT Drug & Alcohol Employee Certified Receipt Form  
Drug Test Results Form (supplied by the testing facility)  
U.S. DOT Alcohol Testing Form (supplied by the testing facility)  
Federal Drug Testing Custody and Control Form (supplied by the testing facility)  
Observed Behavior of Reasonable Suspicion of Drug & Alcohol Use

**REFERENCES**

1. 49 CFR 40 – Procedures for Transportation Workplace Drug and Alcohol Testing
2. 49 CFR 300-399 – Federal Motor Carrier Safety Administration Department of Transportation

**ATTACHMENTS**

1. DOT Driver Qualification File checklist
2. DOT Driver's Application for Employment
3. Fair Credit Reporting Act Disclosure Statement
4. Request to check for DOT driver's motor vehicle record
5. Previous Employee Safety Performance History
6. Record of Road Test
7. Certificate of Road Test
8. Entry Level Driver Training Certificate
9. Annual review of driving record and list of violations
10. Pre-Employment Hours of Service (7-day prior log)
11. Pre-Employment Certificate of Compliance
12. Pre-Employment Drug and Alcohol Statement
13. DOT Drug & Alcohol Test Notification Form
14. DOT Drug & Alcohol Employee Certified Receipt Form
15. Observed Behavior of Reasonable Suspicion of Drug & Alcohol Use
16. Sample DOT Drug and Alcohol Policy
17. Recordkeeping Overview



## Wilkinson Electric DOT Drug & Alcohol Program

### PROGRAM STATEMENT

Wilkinson Electric is dedicated to the health and safety of our DOT Drivers. Drug and/or alcohol use may pose a serious threat to driver health and safety. Therefore, it is the program of Wilkinson Electric to prevent the use of drugs and abuse of alcohol from having an adverse effect on our DOT drivers, and the general public.

The serious impact of drug use and alcohol abuse has been recognized by the federal government. The Federal Motor Carrier Safety Administration (FMCSA) has issued regulations which require the company to implement an alcohol and controlled substances testing program.

It is the program of Wilkinson Electric that the use, sale, purchase, transfer, possession, or presence in one's system of any controlled substance (except medically prescribed drugs) by any DOT driver while on the company premises, engaged in company business, operating company equipment, or while under the authority of Wilkinson Electric is strictly prohibited.

### DEFINITIONS

Not Applicable at this time.

### RESPONSIBILITIES

1. In accordance with 49 CFR §382.601(a), Wilkinson Electric will provide educational materials that explain the requirements in Part 382 and Wilkinson Electric DOT policies and procedures with respect to meeting these requirements. The employer shall ensure that a copy of these materials is distributed to each driver prior to the start of alcohol and controlled substances testing under this part and to each driver subsequently hired or transferred into a safety-sensitive function position (i.e., operating a commercial motor vehicle as defined in §382.107).
2. Each driver hired or transferring into a position of operating a DOT regulated vehicle is responsible for reviewing the content of the information. Each DOT driver is responsible for asking questions about the procedures if the content is unclear to him/her. DOT drivers may pose follow-up questions about the content of this program and procedures the company appointed administrator.
3. All drivers who operate commercial motor vehicles that require a commercial driver's license under 49 CFR Part 383 are subject to the FMCSA's drug and alcohol regulations, 49 CFR Part 382.
4. It is the company's responsibility to provide testing for the driver that follows all federal and state laws and regulations, and within the provisions of this program.

### PROGRAM REQUIREMENTS

1. This program is in accordance with the regulations set forth in the DOT 49 CFR Part 40 and Part 382 et al. and applies to all DOT Drivers operating a commercial motor vehicle that:
  - A. Has a gross combination weight rating of 26,001 lbs. or more inclusive of a towed unit with a gross weight rating of more than 10,000 lbs.; or
  - B. Has a gross vehicle weight rating of 26,001 lbs. or more; or
  - C. Is designed to transport 16 or more passengers including the driver; or
  - D. Is of any size and is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act (49 U.S. C. 5103 (b) and requires the motor vehicle to be placarded under the Hazardous Materials Regulations (49 CFR Part 172, Subpart F)
2. Alcohol and Drug Testing
  - A. Alcohol and drug testing will be conducted as required by federal regulations.
    - I. Compliance with this program is a condition of employment as a DOT driver.
    - II. Any DOT driver violating this program is subject to disciplinary action, up to and including termination.
  - B. During the hiring process, all DOT driver applicants will be tested for the absence of controlled substances.
    - I. An applicant who has tested positive for drugs during a DOT pre-employment test will not be considered for employment.
    - II. New DOT driver applicants and any existing DOT driver who tests positive for a controlled substance or alcohol, who wish to be eligible for hire, must wait for a period of one year from the date of the confirmed positive test before re-applying.
    - III. All such applicants must provide documentation of having successfully completed a recognized rehabilitation program and have a negative return to duty test as required by the SAP (substance abuse professional).
  - C. Under this program, employees are subject to the following prohibitions:

- I. Reporting for work under the influence of alcohol or a controlled substance regardless of when consumed.
  - II. Buying, selling, manufacturing, distributing, possessing, consuming or otherwise using controlled substance on company time, company property or while representing Wilkinson Electric. The only exception is if such use is at the direction of a physician who has advised the employee that the medication will not interfere with the ability to safely perform his or her duties.
  - III. Consuming alcohol on company time or company property.
- D. Any DOT driver who refuses to submit to a required test for alcohol or controlled substances is subject to immediate termination.
- E. All alcohol and controlled substance testing shall be conducted through facilities approved and designated by the Human Resources Dept. administering the testing program. Test procedures are in strict compliance with the guidelines developed by federal agencies to ensure the integrity and confidentiality of test results.
- F. Before testing, all prospective and current CDL drivers are required to complete and sign the "Drug & Alcohol Testing Authorization Record Release" form.
- G. Any applicant or employee whose test result is reported by the Medical Review Officer (MRO) as "dilute" positive result will be considered as a verified positive test.
- I. If the result is reported as "dilute" negative result, it will be considered as a verified negative test result and will not require a recollection.
  - II. However, if the Medical Review Officer (MRO), in accordance with DOT 49 CFR 40.197 subpart (B) (1, 2) and subpart (C) (1-5), recommends a recollection under direct observation based on the creatinine concentration, then the individual will be directed to take another test immediately.
  - III. If the recollection has a negative dilute result, then the test will be considered negative.
3. Types of Testing  
All CDL drivers will be subject to testing under the following conditions:
- A. Pre-Employment:
- I. During the hiring process all applicants will be tested for the absence of controlled substances.
  - II. A negative test result must be obtained prior to hiring an employee.
- B. Reasonable Suspicion:
- I. Management may require an unscheduled test if the actions, appearance or conduct of an employee create a suspicion that he or she has used or is under the influence of alcohol or a controlled substance.
  - II. For reasonable suspicion only:
    - 1) The employee shall be placed on immediate suspension and must not return to work until a negative test result is received.
    - 2) If the results are negative, the employee will be reinstated and reimbursed for the suspension.
    - 3) If the results are positive, the employee will be subject to immediate termination.
- C. Post-Accident:
- I. Any DOT driver who is subject to post accident testing pursuant to this program and or the FMCSA regulations, must remain readily available for testing or may be deemed to have refused to submit to testing unless injuries resulting from the accident require immediate medical attention away from the accident scene.
  - II. As soon as practicable following an occurrence involving a commercial motor vehicle, each employer shall test for the absence of alcohol and/or controlled substances.  
Note: If a post-accident alcohol test is not promptly administered within two (2) hours following the accident, Management must cease to attempt to administer the test and must prepare and maintain on file a record stating the reasons the test was not promptly administered. If a post-accident-controlled substance test is not administered within thirty-two (32) hours following the accident, Management must cease attempts to administer a controlled substance test and prepare and maintain on file a record stating the reasons the test was not properly administered.
- D. Random Testing
- I. Wilkinson Electric will conduct random testing for all CDL drivers who operate DOT vehicles for Wilkinson Electric as follows:
    - 1) At least 10% of all CDL drivers will be tested for alcohol each year.
    - 2) At least 50% of all CDL drivers will be tested for drugs each year.
    - 3) Random testing will be spread reasonably throughout the calendar year. All random alcohol and drug tests will be unannounced, with each CDL driver having an equal chance of being tested each time selections are made.
    - 4) Once notified that he/she has been selected for testing, the employee must proceed immediately to the assigned collection site.

- E. Refusal to Submit
  - I. According to Section 382.211, a driver may not refuse to submit to a post-accident, random, or reasonable-suspicion controlled substances test required by the regulations.
  - II. A driver who refuses to submit to such tests may not operate a vehicle or continue to operate a vehicle and must be evaluated by a substance abuse professional as if the driver tested positive for drugs or failed an alcohol test.
  - III. Refusal to submit includes failing to provide adequate breath or urine sample for alcohol or drug testing and any conduct that obstructs the testing process. This includes adulteration or substitution of a urine sample.
- 4. Controlled Drugs & Substances
  - A. For the purposes of this program, the following components of the 5 –panel, DOT test are considered to be controlled substances:
    - I. Amphetamines
    - II. Cocaine
    - III. Marijuana and related substances
    - IV. Opiates, including heroin and morphine
    - V. Phencyclidine
  - B. For purpose of this program and DOT regulations, a breath, saliva or blood alcohol concentration of 0.04% or more is considered proof that an employee is under the influence of alcohol.
  - C. In any case where the employee claims that use of a drug is prescribed by a physician, it will be the employee’s responsibility to provide the following:
    - I. Notice to Management of the prescribed drug;
    - II. Clear and convincing evidence that the substance was prescribed to the employee by a physician familiar with the employee’s medical history and assigned duties and;
    - III. A signed statement from the physician stating the medication will not impair the driver’s (employee) ability to safely operate a company vehicle.
- 5. Violations Resulting in Disciplinary Action
  - A. If an employee possesses, consumes or is under the influence of any intoxicating beverage or controlled substance at any time while on duty or at any time (on or off duty) while in a motor vehicle owned or operated by Wilkinson Electric the employee will be subject to termination.
  - B. The only exception is if such use is at the direction of a physician who has advised the employee that the medication will not interfere with the ability to safely perform his or her duties.  
Note: The use of a drug prescribed by a physician to someone else, including an immediate family member, is illegal and prohibited.
  - C. If an employee refuses to submit to any drug or alcohol test required under this program, the employee will be terminated. For purposes of this program, “refusal to submit” to an alcohol or controlled substances test will include, but is not limited to:
    - I. Failing to provide an adequate breath sample for alcohol testing, without a valid medical explanation after an applicant or employee has received notice of a required breath test; or
    - II. Failing to provide an adequate urine sample for controlled substances testing, without a genuine inability to provide a specimen (as determined by a medical evaluation), after an applicant or employee has received notice of a required urine test; or
    - III. Engaging in conduct that clearly obstructs the testing process, including the failure or refusal to sign any document or form required under this program or by any party authorized to carry out testing under this program; or
    - IV. Engaging in any conduct that creates reason to believe that a urine specimen has been altered, substituted or adulterated for the purposes of affecting the validity or accuracy of a controlled substance test result; or
    - V. Failing to report for required testing or failing to report immediately after notification.
  - D. A test result reported by the MRO as “substituted” or “adulterated” will be considered as a refusal to submit to a controlled substance test.
  - E. If an applicant or employee disputes the test results, he/she must immediately contact the MRO for further instruction regarding the request for a retest of the split specimen. The employee will be suspended until such time as a determination can be made on the results of the retest. If the retest is negative, the suspended employee will be reinstated and reimbursed for the suspended time.
    - I. If the employee test result is positive, the employee will be provided with the name and number of a referral agency to obtain a list of Substance Abuse Professionals (“SAP”) in his or her local area. Wilkinson Electric does not assume any liability for the employee’s decision to select any

recommended SAP, the cost of the treatment program selected, or the results of the treatment provided.

6. Program Review shall be reviewed at least once yearly with incidents related to this program

#### **TRAINING**

1. Employee Training

Training sessions will be conducted during any regular monthly safety training meetings on an annual basis. Upon completion of training, the employee must receive a copy of this program. Management must ensure that each employee completes the requisite session training courses:

- A. A minimum of one 60-minute session of training on the effects and consequences of substance abuse conducted annually; and
- B. A one 60-minute session of training on effects and consequences of alcohol abuse conducted annually.

2. Manager and Supervisor Training

The Wilkinson Electric Human Resources and Safety Departments must ensure that all Supervisors complete the Reasonable Suspicion training certification. Likewise, Managers must ensure that anyone responsible for the supervision of CDL drivers also receive the same training.

#### **RECORDKEEPING**

- 1. The Medical Review Officer retains individual drug and alcohol test results for five (5) years.
- 2. Management shall retain individual test reports and all related materials in each employee's medical file
- 3. Records related to the administration and results of the drug and alcohol-testing program must be retained for seven (7) years.
- 4. These records are confidential and will be maintained in a secure location with controlled access for the specified periods measured from the date of the document or data creation.

Wilkinson Electric will retain all records related to testing and the testing process in a secure and confidential location under the direction of the appointed company representative.

Wilkinson Electric alcohol and drug program administrator who is designated to monitor, facilitate, and answer questions pertaining to these procedures is: HR Director

#### **FORMS**

Not Applicable at this time

## Hazard Communication Program

### PROGRAM STATEMENT

Wilkinson Electric Hazard Communication Program identifies all materials and chemicals provided or found in the workplace, which could be a potential hazard to our employees or to employees of others. Wilkinson Electric will make information available about the substances and chemicals that we provide to ensure safe use and handling. The Hazard Communications Program (HAZCOM) will be available for each construction site for review by all employees. Safety Data Sheets (SDS) and chemical inventory list will be accessible on all Wilkinson Electric projects for all employees and employees of others to review as requested. The HAZCOM Program consists of the HAZCOM Program, chemical inventory list and SDS's.

### DEFINITIONS

1. Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazards or remove the employee from the hazardous condition.
3. Right to Understand: Employers shall inform their employees of known chemical hazards found in the work place, including the associated hazards, health effects and necessary protection from exposure.
4. Safety Data Sheet – (SDS), previously Material Safety Data Sheet (MSDS), created by the manufacturer to Globally Identify the (GHS – Globally Harmonized System) the product/chemical and its hazards

### RESPONSIBILITIES

1. Employee
  - A. Are required to always read container labels and the SDS of the substances handled and be aware of their potential hazards.
  - B. Are required to follow the established work procedures at all times
  - C. Use Personal Protective Equipment (PPE) when handling hazardous substances as required by Wilkinson Electric Program and the applicable SDS
2. Supervisor
  - A. Responsible for obtaining the SDS for products being used in the work
  - B. Responsible for HAZCOM implementation and compliance on the project.
  - C. Expected to communicate the HAZCOM requirements and document the expectations.
  - D. Shall provide a copy of the Safety Data Sheet, upon request from affected employees and contractors
  - E. Schedule training for employees upon assignment, prior to working on project.
3. Safety Department
  - A. Responsible for administrating this written program within their perspective division
  - B. Provides the training and information upon request
  - C. Retains all incident information for recordkeeping purposes

### PROGRAM REQUIREMENTS

Hazard Communication or "Right to Understand" refers to a program requiring employers to inform their employees of known chemical hazards found in the work place. Every employee has the right to know and understand information about the potentially hazardous products used in the work area.

1. Every employee has the right to know and understand information about the potentially hazardous products used in the work area.
  - A. Each project is required to maintain a chemical inventory list of all chemicals Wilkinson Electric has on site for quick easy reference along with the Manufacturer' Safety Data Sheets (SDS)
    - I. All containers shall be marked
    - II. Provide project specific training for any potential hazards associated with the chemicals being used on their project.
    - III. Employees will not be discharged or discriminated against for exercising their Right to Know and Right to Understand.
    - IV. Maintain incident records of employee accidental exposure to hazardous chemicals. These records are forwarded to the.
    - V. Make available to and share with other employers as requested any SDS information on hazardous chemicals on the project.
    - VI. Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by his supervisor about chemical hazards to which the employee may be exposed during such an activity.
    - VII. Federal law requires the supervision of other employers to provide the appropriate SDS sheets to Wilkinson Electric for all hazardous chemicals being used in the work place.



VIII. When exposure to hazardous chemicals is anticipated, the Project Manager and Project Supervisor are responsible to schedule and coordinate the appropriate training of their employees before exposure.

## 2. Safety Data Sheets

- A. Wilkinson Electric shall rely on the manufacturers or suppliers who originated the SDS for the accuracy of this information.
- B. If a SDS is missing, a new SDS will be requested by the Supervisor to the Project Manager. Project Manager will implement a SDS request form.
- C. The Hazard Communications Standard (HCS) requires chemical manufacturers, distributors or importers to provide Safety Data Sheets (SDS formerly known as Material Data Sheets or MSDS) to communicate the hazards of hazardous chemical products.
  - I. The HCS requires the SDS to be in a uniform format and include section numbers, the headings and associated information under the headings below:
    - Section 1: Identification – Product name and contact information on the manufacturer
    - Section 2: Hazard(s) Identification – Identifies different classification of hazards by categories, starts at 1 for the most hazardous and ends at 5 for the least hazardous. Letters may be used in certain categories, the lower the letter the more severe the hazard.
    - Section 3: Composition / Information on Ingredients
    - Section 4: First Aid Measures – Medical actions if there is an exposure and notes to the attending physician
    - Section 5: Fire Fighting Measures – How to extinguish fire and any specific hazards created should this product burn.
    - Section 6: Accidental Release Measures
    - Section 7: Handling and Storage – Safe storage conditions and how chemical will react to certain physical conditions.
    - Section 8: Exposure Controls / Personal Protection (PPE) – Lists exposure limits for each chemical and required PPE to be utilized
    - Section 9: Physical and Chemical Properties – Identifies flash point, upper and lower explosive limits and vapor density.
    - Section 10: Stability and Reactivity – Describes the reactivity hazards of the chemical and the chemical stability information.
    - Section 11: Toxicological Information – Information on routes of entry and conditions that can result from short (acute) and long term (chronic) exposure and if carcinogen hazard.
    - Section 12: Ecological Information (*Not Mandatory*)
    - Section 13: Disposal Considerations (*Not Mandatory*)
    - Section 14: Transport Information (*Not Mandatory*)
    - Section 15: Regulatory Information (*Not Mandatory*)
    - Section 16: Other Information
- D. When new hazardous chemicals are introduced, a Competent Person will review the items and coordinate with project management to provide training  
All Wilkinson Electric subcontractors working onsite are expected to comply with the Wilkinson Electric Hazard Communications Program and training requirements.

## 3. Labeling










- A. Material received at the project shall be properly labeled.
- B. If labels are not provided, do not use the product, contact the supplier for specific labels required by federal and state regulations
- C. Product labels must not be removed, if illegible product is not to be used until properly labeling from the manufacturer/supplier has been obtained. These labels should provide the following:
  - I. Product Identifier – Name or ID from SDS
  - II. Signal Word – Danger (Use for more severe hazard), Warning (Use for less severe hazard)
  - III. Hazard Statement – Describes the nature and degree of the hazard. Nature – Corrosive, Asphyxiant, Flammable. Degree – Low, medium, high, extremely high
  - IV. Pictogram – one of eight required by OSHA
  - V. Precautionary Statement – Information on how to handle the chemical safely, required PPE, and other preventive measures needed.
  - VI. Name, Address, Telephone Number – Manufacturer, Importer or responsible party

## 4. Pictograms

- A. All labels are required to have the proper pictogram depicted on the label.



- B. Currently there are 9 different pictograms that are accepted.
- C. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s).
- D. The pictogram on the label is determined by the chemical hazard classification.

<b>Health Hazard</b> Carcinogens, respiratory sensitisers, reproductive toxicity, target organ toxicity, germ cell mutagens 	<b>Flame</b> Flammable gases, liquids, & solids; self-reactives; pyrophorics; 	<b>Exclamation Mark</b> Irritant, dermal sensitiser, acute toxicity (harmful) 
<b>Gas Cylinder</b> Compressed gases; liquefied gases; dissolved gases 	<b>Corrosion</b> Skin corrosion; serious eye damage 	<b>Exploding Bomb</b> Explosives, self-reactives, organic peroxides 
<b>Flame Over Circle</b> Oxidisers gases, liquids and solids 	<b>Environment</b> Aquatic toxicity 	<b>Skull &amp; Crossbones</b> Acute toxicity (severe) 

- 5. Personal Hygiene
  - A. Use appropriate protective clothing as required. **DO NOT SHARE EQUIPMENT.**
  - B. Immediately remove contaminated clothing.
  - C. Wash before going on break (toxic material usually requires showering).
  - D. Never take food into the work area.
  - E. Never smoke in a work area if chemicals are present. Leave cigarettes in storage area.
  - F. Clean up known spill immediately, keep work area clean.
- 6. Chemical Spill Clean-Up Procedures
  - A. Only Persons trained and equipped with protective equipment should do clean up. (if you are not trained, do not attempt to clean up a spill)
  - B. Evacuate the immediate area of all non-essential persons.
  - C. Eliminate all sources of ignition, if required.
  - D. Do not leave contaminated area unattended. Have attendant remain a safe distance to avoid a chemical exposure, and have attendant restrict access to the spill area until spill is cleaned up.
  - E. Contain the spill if possible with an absorbent material.
  - F. Notify Wilkinson Electric Division Safety Manager immediately.
  - G. Pick up absorbent or neutralizer and place into container and Label the container.
  - H. Wash down area.
- 7. How to Manage the HAZCOM Program
  - A. A HAZCOM program is issued for each project to site management
  - B. It is the responsibility of each Supervisor to maintain their HAZCOM Program and make it available to all employees and employers on site upon request.
  - C. The program should identify all chemicals to be used on that specific project by Wilkinson Electric.
  - D. The program should include a chemical inventory list identifying all chemicals on site and supplied by Wilkinson Electric.
  - E. The program should include a SDS Sheet for each chemical
  - F. If a Project utilizes a "new" chemical not identified in the HAZCOM program, site management is to fill out a SDS Request Form and submit to the Safety Department.
    - I. Safety will expedite the SDS request and provide it to site management with urgency.
    - II. Safety will review training resources that may be need.
    - III. Coordinate with the site management on any special training that may be required
  - G. Each update to the HAZCOM Program will be identified by the date updated.

- H. Each Supervisor will ensure new substances and updated SDS are reviewed with employees who work where there is a risk of exposure
  - I. Each Supervisor that uses subcontractors on their project will communicate and document expectations the subcontractor is expected to comply with the Wilkinson Electric Hazard Communications Program and training requirements.
8. Program Review shall be at least once a year with incidents related to this program

**TRAINING**

1. Employee shall attend and successfully complete Wilkinson Electric 15.1 Hazard Communications Program during the New Employee Orientation on the following:
  - A. An overview of the requirements contained in the Hazard Communication Regulation, employee rights under the Regulation.
  - B. Inform employees of any operation in their work area where exposures may be present, including Silica.
  - C. Location and availability of the written Hazard Communication Program.
  - D. Physical and health effects of the hazardous chemicals.
  - E. How to lessen or prevent exposure to these hazardous substances through usage of engineering controls, work practices and/or the use of personal protective equipment.
  - F. Steps taken to lessen or prevent exposure to these chemicals.
  - G. How to read labels and review SDS and Pictograms to obtain appropriate hazard information.
2. All training will be documented to include the date, topic of training, trainer's name, trainee's name and signature.
3. Continued and Refresher training shall occur at least once a year

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 15.1.1 Request for Information Safety Data Sheet (SDS)

## REQUEST FOR INFORMATION SAFETY DATA SHEET (SDS)

To request a Safety Data Sheet (SDS) complete the form below and forward to the Safety Manager.

Date: \_\_\_\_\_ Project Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Contact Number: \_\_\_\_\_

Product Description: \_\_\_\_\_

Supplier Name: \_\_\_\_\_

Product Manufacturer: \_\_\_\_\_

Product Part Number: \_\_\_\_\_

Chemical Abstract Number: \_\_\_\_\_

The more complete and accurate the form is, will help in expediting your request.



## Spill Containment Program

### PROGRAM STATEMENT

It is Wilkinson Electric's commitment to make all Employees fully aware of the surrounding environment, how to protect themselves from possible dangerous spills and train them to properly contain and clean up spills.

### DEFINITIONS

1. Decontamination - means the removal of hazardous substances from employees and their equipment to the extent necessary to preclude the occurrence of foreseeable adverse health effects.
2. Emergency Response or *responding to emergencies* means a response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance.
3. Equipment and solvents. All equipment and solvents used for decontamination shall be decontaminated or disposed of properly.
4. Health Hazard - a chemical or a pathogen where acute or chronic health effects may occur in exposed employees. It also includes stress due to temperature extremes.
5. Release of Hazardous Substance Response where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses
6. Incidental spills of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard.
7. Qualified Person - means a person with specific training, knowledge and experience in the area for which the person has the responsibility and the authority to control.

### RESPONSIBILITIES

1. ALL Employees working where the risk of exposure to a hazardous substance exists
  - A. Shall be trained to recognize site-specific hazards and how to prevent them
  - B. Shall inspect and wear PPE as required by task and hazard
  - C. Shall understand the difference between Incidental or Nuisance Spills and spill containment program requirements
  - D. Shall comply will all program requirements and emergency response procedures

### PROGRAM REQUIREMENTS

1. General Requirements
  - A. There will be, in our possession, a SDS sheet for all hazardous chemicals we may come in contact with before work starts in the area.
  - B. Employees will never knowingly handle, use and/or dispense hazardous substances without the proper protective equipment and training.
  - C. An accidental spill is to always be handled properly, to reduce the potential of further contamination.
  - D. Treat all unknown substances as a hazardous material.
  - E. Anytime an Employee is exposed to a potentially dangerous substance, immediately notify the Senior Supervisor.
  - F. All Employees are to be immediately evacuated from the area of the potential spill.
2. Spill Containment Hazard
  - A. General requirements
    - I. Potential spill hazards associated with each task will be identified on the Job Hazard Analysis form (JHA).
    - II. For each potential spill hazard, the control procedure and spill response procedure will be recorded on the JHA.
    - III. Personal protective equipment, decontamination and air monitoring procedures required for each spill response hazard must be incorporated into the JHA.
    - IV. The need to report depends on the type of substance involved, the quantity released and the duration of the release. Notifying and filing reports of incidents to appropriate agencies is the responsibility of the Safety Manager. Not all spills require an agency report.
3. Spill Response
  - A. Spill response requirements are governed by an overlapping set of Federal, State and, in some cases, local statutes, ordinances, rules and regulations.
  - B. Read the SDS sheet for the product and follow accidental release guidelines.
  - C. All Employees are to be immediately evacuated from the area of the potential spill.

- D. Isolate the hazardous area by flagging, and deny entry to unauthorized personnel.
- E. Stay upwind and keep out of low-lying areas.
- F. Allow no flares, smoking, or flames in hazard area.
- G. Keep combustible materials, such as lumber, dry vegetation or trash, etc. away from any spilled liquids.
- H. Take immediate measures to control and contain the spill.
- I. It is especially important to protect water sources from contamination. Protect drains, manholes, ditches into streams, etc. with dikes, dams, or other methods to minimize water contamination.
- J. Record the names of all employees potentially exposed to the spill, the substance involved, estimated quantity released, and the initial release time.
- K. Follow the site notification procedures.

#### 4. Spill Response by Type

- A. Small Dry Spills
  - I. Shovel contaminated materials into dry containers and cover. Care should be taken to minimize dust generation.
  - II. Label the containers according to the contents and remove to a designated staging area.
- B. Small Liquid Spills
  - I. Absorb the liquid with vermiculite (silicate mineral used for absorption), sand, clean fill, or other noncombustible, absorbent material.
  - II. Place contaminated material into a container and label the contents prior to transporting to the designated staging area.
- C. Acids
  - I. Employees assigned to assist in the clean-up must wear rubber gloves.
  - II. Dump dry baking soda into the surface spill.
  - III. Wipe up with a clean rag dipped in a baking soda and water or lime and water paste.
  - IV. Place the contaminated materials in a drum and properly mark as hazardous waste.
  - V. Follow the site hazardous material removal requirements.
- D. Alkalis
  - I. Dilute the spill with large amounts of water.
  - II. Absorb with dry absorbent.
  - III. Place the contaminated materials in a drum and properly mark as hazardous waste.
  - IV. Follow the site hazardous material removal requirements.
- E. Asbestos
  - I. In the event of an accidental release, evacuate the area immediately.
  - II. Notify the General Contractor/Customer immediately.
- F. Chlorine
  - I. Chlorine gas is deadly. In the event of a spill, evacuate the area immediately.
  - II. Notify the local fire department.
  - III. Notify Senior Supervisor.
  - IV. Notify the General Contractor/Customer immediately.
  - V. If the chlorine is liquid, contain with sand or dry absorbent.
  - VI. Do not apply water.
  - VII. Place the contaminated materials in a drum and properly mark as hazardous waste.
  - VIII. Follow the site hazardous material removal requirements.
- G. Compressed Gases
  - I. In the event of an accidental release of compressed gases, evacuate the area immediately.
  - II. Extinguish any open flames and discontinue operations causing sparks.
  - III. Dissipate the gas by flooding the affected area with fresh air.
- H. Coolants
  - I. Contain the spill using a dry absorbent.
  - II. Do not apply water.
  - III. Place the contaminated materials in a drum and properly mark as hazardous waste.
  - IV. Follow the site hazardous material removal requirements.
- I. Flammable Solvents
  - I. Contain the spill using a dry absorbent.
  - II. Do not apply water.
  - III. Place the contaminated materials in a drum and properly mark as hazardous waste.
  - IV. Follow the site hazardous material removal requirements.
- J. Fuels – Gasoline/Diesel
  - I. Contain the spill using a dry absorbent.
  - II. Do not apply water.
  - III. Excavate the contaminated soil as quickly as possible.

- IV. Place the contaminated soil in a drum and properly mark as hazardous waste.
- V. Follow the site hazardous material removal requirements.
- K. Paints and Thinners
  - I. Contain the spill using a dry absorbent.
  - II. Do not apply water.
  - III. Place the contaminated absorbent in a drum and properly mark as hazardous waste.
  - IV. Follow the site hazardous material removal requirements.
- L. PCB
  - I. Employees assigned to assist in the clean-up must wear rubber gloves.
  - II. Contain the spill using a dry absorbent.
  - III. Do not apply water.
  - IV. Place the contaminated materials in a 6-mil polyethylene bag and properly mark.
  - V. Follow the site hazardous material removal requirements.

5. Program Review shall be reviewed at least once a year with incidents related to this program.

#### **TRAINING**

1. Employees must be properly trained in spill containment prior to task assignment.
2. Retraining is required if a lack of proficiency is observed unless another frequency is dictated by Division policies.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

Not applicable at this time.





## Bloodborne Pathogens Program

### PROGRAM STATEMENT

Employees must be informed of, and protected from biohazards that may exist in the work area. The occupational exposure Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV) infections and other communicable blood borne pathogens will be minimized to the fullest extent possible.

### DEFINITIONS

1. AIDS: Acquired immunodeficiency syndrome. The failure of the human immune system that allows the growth of rare cancers and infections.
2. Biohazard: An abbreviation for biological hazard. Organisms or products that present a health risk to humans.
3. Contaminated: the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
4. Decontamination: the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
5. HBV: Hepatitis B virus. A blood borne virus that may cause liver cancer.
6. HbsAG: Hepatitis B surface antigen blood test. Test to detect the presents of the hepatitis B virus.
7. HIV: Human immunodeficiency virus. An infection by one of two viruses that progressively destroys white blood cells, causing acquired immunodeficiency syndrome.
8. Other infectious materials: Any human body fluid/secretion, unfixed tissue or organ that may contain a biological hazard.
9. Pathogen: Any microorganism capable of causing disease.
10. Work Practice Controls means controls that reduce the likelihood of exposure by altering the way a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

### RESPONSIBILITIES

1. Employee
  - A. Shall adhere to the program requirements
  - B. Shall IMMEDIATELY report an exposure to their Supervisor
2. Supervisor / Competent Person
  - A. Shall ensure employees have access to use appropriate PPE
3. Safety
  - A. Shall investigate all incidents
  - B. Shall provide training and program support as needed

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. Biological hazards potentially present onsite must be identified and included in the Job Hazard Analysis (JHA).
  - B. The Job Hazard Analysis must describe methods for onsite workers to recognize the biohazards onsite, methods for avoiding or controlling the biohazards, and applicable emergency procedures.
  - C. Biohazards may be characterized as pathogens, dangerous plants, dangerous insects, or dangerous animals
  - D. The project Supervisor should work closely with the Safety Manager to identify potential biohazards onsite.
  - E. Contact the owner or operator of the project site to identify biohazards known to be onsite.
2. Pathogens
  - A. A pathogen is generally a living agent that is capable of producing disease.
  - B. Hospital wastes may contain a variety of pathogens.
  - C. Other pathogens that might be encountered on Division project sites may include Hantavirus (blood virus) and rabies.

3. Pathogen Identification
  - A. On site first aid providers must follow universal precautions as recommended by the Center for Disease Control. All human blood and other body fluids, possibly contaminated with blood, will be considered potentially infectious for HBV and HIV.
  - B. Rabies: Rabies is an acute viral infection occasionally transmitted to humans when the saliva from an infected animal, for example a rabid dog, rodent, cat, skunk, fox, raccoon or bat, contacts an open wound or body opening such as the mouth or eye. The infected animal can transmit rabies by biting or licking a person. Symptoms in humans generally appear 2 to 12 weeks after infecting contact and progress from fever, restlessness, and extreme excitability to excessive drooling, generalized seizures and death.
  - C. The Job Hazard Analysis should identify any other pathogens that may present a hazard at the work- site.
4. Pathogen Controls
  - A. Persons involved in clean-up of contaminated areas where blood borne pathogen is likely, should have a baseline serum sample drawn and stored. This serum will be of benefit to the physician should symptoms develop.
  - B. Clean-up crew should protect their skin from contamination by wearing protective clothing and may require a high efficiency particulate air (HEPA) filtering face piece mask.
  - C. During clean up, any potentially contaminated items should be sprayed with a disinfectant prior to disposal. Work practices should minimize airborne dust.
  - D. Any clean-up worker who develops a fever or respiratory illness within 45 days of the last potential exposure should immediately seek medical attention.
  - E. Field personnel should not attempt to touch live or dead animals unless specifically required under the scope of work. Where touching an animal is required, personnel should wear appropriate PPE (leather gloves, etc.) to protect against bites or scratches.
  - F. Anyone who is bitten by an animal must seek medical attention immediately.
  - G. Dangerous insects include poisonous, biting, or stinging insects. Dangerous insects that may be encountered on many Division project sites include bees, wasps, hornets, spiders, scorpions, biting flies, and ticks.
  - H. The stinger of ants, bees, wasps, and hornets may remain in the skin and should be removed by scraping rather than pulling. Apply ice to the area that has been stung to reduce swelling and pain.
  - I. If the stung individual demonstrates signs and symptoms of allergic reaction, transport to emergency medical care. Signs and symptoms of allergic reactions include pain, swelling of the throat, redness or discoloration at the site, itching, hives, decreased consciousness, and difficult or noisy breathing.
  - J. People with known hypersensitivity to such stings should notify the Site Supervisor prior to beginning fieldwork and be prepared with appropriate medications.
  - K. Any Employee potentially bitten by a spider must seek medical attention. As spiders are generally found in dark protected areas such as in the protective casings of monitoring wells, inspect such areas before touching, and wear leather gloves where visual inspection is difficult and hand contact is necessary.
  - L. Reptiles including snakes and large or predatory mammals may present significant hazards at many of Division work-sites. While dangerous reptiles may include alligators and gila monsters, the more common hazard on our work-sites is venomous snakes. The Job Hazard Analysis should identify any other dangerous animals that may present a hazard at the work-site.
  - M. Anyone who is bitten by ANY snake should be kept still and transported to emergency medical care. Keep the bitten area below the level of the heart. Do not apply cold to the bitten area, and do not give aspirin to the person bitten. As medical treatment may vary depending on species responsible for a bite, it is important to remember as much as possible about the markings, size, and features and coloring of a snake that strikes.
  - N. Wear boots and heavy pants in areas where snakes are likely.
  - O. Persons considered at risk from Blood borne pathogen exposure will be offered the test for HIV antibody to HBV surface antigen using an accredited laboratory.
    - I. When Employees have received the training outlined in this document and within 10 working days of initial assignment.
    - II. HBV vaccination will be offered to all employees occupationally exposed, as part of their job duties, to blood or other materials potentially infectious for HBV, unless the employee has had a previous HBV vaccination or unless antibody testing has revealed that the Employee is immune, or the vaccine is inadvisable for medical reasons.
    - III. If the Employee initially declines HBV vaccination, but at a later date, while still covered under this document, decides to accept the HBV vaccine, it will be provided at that time.
  - P. When there is a potential for exposure to blood or other potentially infectious body fluids, the Employee must use the appropriate protective equipment.
    - I. Gloves, gowns.
    - II. Laboratory coats, protective clothing.

- III. Face shields, masks, eye protection.
  - IV. Resuscitation bags, or other ventilator devices to form a protective barrier.
  - Q. Employees shall wash their hands immediately or as soon as possible after removal of gloves or other personal protective equipment and after hand contact with blood or other potentially infectious materials.
5. Incident Investigation
- A. Exposure incidents must be reported immediately to the exposed Employee's supervisor, who must then immediately report the exposure to the Safety Manager to promptly conduct an exposure incident investigation that documents the following information:
    - I. The circumstance surrounding the exposure incident.
    - II. The likely route(s) of entry.
    - III. Engineering controls in place at the time of the incident.
    - IV. Work practice controls in place at the time of the incident.
    - V. Personal protective equipment or clothing in use at the time of the incident.
    - VI. Any failures of the above controls at the time of the incident.
    - VII. Identification of the source individual.
6. Post-exposure Evaluation
- A. If an Employee has a parenteral (piercing mucous membranes or the skin barrier through events such as needle stick, human bites, cuts, abrasions) or mucous membrane exposure to blood or another potentially infectious body fluid, the route and circumstances of exposure must be identified. If possible, the source material should be tested for the presence of HIV antibody and hepatitis B, after obtaining any necessary informed consent, using an accredited laboratory.
  - B. The Employee must be counseled by a licensed physician regarding the risk of HIV infection and be advised to report and to seek medical evaluation of any acute exposure.
  - C. If the exposure source material is positive for HIV antibody or is not available for examination, the Employee will be re-tested six months and one year after the initial test.
  - D. If the exposure source material is negative for HIV antibody, the Employee may be retested three months after the initial test.
  - E. All testing and counseling will be undertaken with confidentiality and at no cost to the Employee.
  - F. For each post-exposure evaluation, the Division will obtain and provide to the affected Employee a written report concerning the physician's recommendations. The report will include the Employee's ability to receive Hepatitis B vaccine and medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment, and specific findings and diagnosis. The Division will provide the Employee this report within (15) days of the completion of the physician's evaluation.
7. Program Review shall be reviewed yearly with all exposure incidents to ensure the program meets the standard requirements and effectiveness.

**TRAINING**

1. Supervisor will ensure that the following topics are included in the Site Orientation prior to beginning field activities:
  - A. Identification of the section in the Job Hazard Analysis which addresses biohazards,
  - B. A review of site operations where biological hazards are present,
  - C. A review of the dangers presented by specific biohazards onsite,
  - D. Methods of detecting and controlling site-specific biohazards, including emergency procedures when applicable.
2. Bloodborne Pathogens shall be reviewed during New Employee Orientation (NEO).
3. Safety will conduct additional training for all affected employees concerning the prevention of communicable diseases, emphasizing bloodborne diseases.

**RECORDKEEPING**

1. Medical records shall be kept in accordance with the 1910.1020 standard, the duration of employment plus 30 years
2. Training records shall be kept for 3 years or until a new certificate is issued.

**FORMS**

- 15.3.1 Hepatitis B Consent / Declination Form



## HEPATITIS B CONSENT FORM

IN ACCORDANCE WITH RECOMMENDATIONS BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, HEPATITIS B VACCINE IS OFFERED TO ALL DIVISION HEALTH CARE WORKERS.

Hepatitis B Vaccine inoculation is recommended for all health care personnel who are or possibly will be at increased risk of infection with Hepatitis B Virus. Hepatitis B Virus is indicated for immunization against infection caused by all known subtypes of Hepatitis B Virus. The Vaccine will not prevent Hepatitis caused by other agents, such as Hepatitis A Virus, Non-A, Non-B Hepatitis Viruses, or other viruses known to infect the liver. Hepatitis B Vaccine inoculation is generally well tolerated. The manufacturer reported no serious adverse reactions attributable to vaccination during the course of clinical trials. Adverse reactions are usually limited to some localized redness or soreness of the injection site. If you still have questions regarding the Vaccine, please discuss your concerns with the Human Resources Department, or your personal physician.

I have been given an opportunity to ask questions about the inoculation and risks involved.

- All my questions have been answered to my satisfaction.
- I would like to receive the Hepatitis B inoculations.
- I have received, read, and understand the Division Bloodborne Pathogen Exposure Control Plan.

Employee Name: \_\_\_\_\_ Employee # \_\_\_\_\_

\_\_\_\_\_  
Employee Signature Date

\_\_\_\_\_  
Witness Date

### HEPATITIS B VACCINE DECLINATION (MANDATORY)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

- I have been given an opportunity to ask questions about the inoculation and risks involved.
- All my questions have been answered to my satisfaction.
- I have received, read, and understand the Division Bloodborne Pathogen Exposure Control Plan.

Employee Name: \_\_\_\_\_ Employee # \_\_\_\_\_

\_\_\_\_\_  
Employee Signature Date

\_\_\_\_\_  
Witness Date

Distribution: Original Human Resources Department; Copy to Employee



## Emergency Preparedness Program

### PROGRAM STATEMENT

Emergency procedures are to be developed and implemented to provide reasonable steps to protect all employees in the event of fire, natural and other emergencies.

### DEFINITIONS

Not applicable at this time.

### RESPONSIBILITIES

1. Employees
  - A. Submit updated contact information at the time contact information changes.
  - B. Review the emergency preparedness plan
  - C. Participate in all training
  - D. Keep all critical business information on cloud servers
  - E. Create a back-up on an external drive
  - F. In the event of evacuation off site, take your computer with you
2. Supervisors
  - A. Shall keep a current contact list of employee contact and emergency contact information
  - B. Ensure employees have a current understanding of the emergency preparedness plan
  - C. Ask for volunteers to complete Hazard Prevention tasks and Emergency Evacuation or Shelter in Place checklist
  - D. Provide adequate resources when emergency protocol includes shelter in place.
3. Safety Manager
  - A. Issue warnings and alerts to management and employees
  - B. Keep Wilkinson Electric Safety Department updated on current conditions

### PROGRAM REQUIREMENTS

1. Emergency Preparedness
  - A. The Project Manager, Field Manager and Safety Manager must develop a written site Emergency Preparedness Procedure for each project.
  - B. This procedure must be posted at the project where all site employees have access to the information and all employees are to be trained and advised of actions to be taken.
  - C. New Employee Project Orientation is to include the review of the procedure.
  - D. Include the Name, Address, Phone Number and hours of operation of the minor emergency clinic in your area.
  - E. Identify paths for exiting operating areas. Paths may change as the construction evolves, the revised exiting plan must be reviewed by all Employees.
  - F. Identify paths for exiting site construction offices. Paths may change as the construction evolves, the revised exiting plan must be reviewed by all Employees.
  - G. Designate specific assembly points for each area, each type of emergency and/or alarm type; then have an alternate assembly point just in case the primary assembly point cannot be reached.
  - H. Assign one person to each assembly point to take a "head count". **Always know where our employees are and that they are all accounted for.**
  - I. Have the project address with zip code and emergency contact numbers posted.
  - J. In case of an injury or accident secure the scene and obtain as much witness information as possible.
  - K. At least one person on each project is to be certified in first aid. Specific projects may require a more stringent rule; always check to see what the customer requirements are.
2. Medical
  - A. Minor injury / non-life threatening
    - I. Treat the injury with first aid if applicable.
    - II. The Supervisor will coordinate transportation for the injured person to the Clinic. Do not let the injured employee drive.
    - III. Contact the Safety Department immediately.
    - IV. Contact Project Manager.
    - V. Complete an Incident Investigation
    - VI. Notify the customer (General Contractor) of the injury and provide them with their required reports and documentation.
  - B. Major Injury / Life Threatening  
Assign a specific person to Call 911. The 911 operator will need the following information:

- I. Exact address with zip code
- II. Exact nature of the injury.
- III. The caller's name.
- IV. Let the 911 operator know someone will be at the project entrance and will escort them directly to the injured person(s).
  - 1) The operator can guide you through critical initial first aid, if the phone can be moved near the injured person.
  - 2) Be sure to provide exact location, when using a cell phone to call the 911 operator. Cell phone locations cannot be traced like a standard phone line can.
- V. Treat the injury with first aid if you have been trained to so do and if it is applicable. Do not move the injured person unless leaving them there creates a greater danger for them. Example: Injured person is in the path of a growing fire or falling debris.
- VI. Assign a specific person, who is certified in first aid and CPR, to stay with the injured person.
- VII. Keep a translator available, if one will be needed.
- VIII. Assign a specific person to meet and lead the emergency medical personnel to the injured person.
  - 1) Make certain what medical facility EMS is transporting the injured person to.
  - 2) What injuries were sustained?
- IX. Contact Safety Department immediately.

### 3. Other Emergencies (Non-medical)

It is important to develop an emergency plan before it is needed. The plan should take into consideration emergencies of all types, including but not limited to the following:

- A. Equipment failure on the construction site, damaging the building and threatening employees.
- B. Bomb Threats.
- C. Structural failure of a building either existing or under construction, threatening employees.
- D. Excavation cave-ins.
- E. Fire.
- F. Storms.
- G. Chemical spills.

- I. Evacuate all non-essential personnel from the area immediately. Assign a specific person to Call 911. The 911 operator will need the following information:
  - a) Exact address with zip code.
  - b) Exact nature of the emergency.
  - c) The callers' name.
  - d) Let the operator know someone will be at the project entrance and will escort them directly to the location of the emergency.
- II. Gather all employees at the designated assembly points for a head count.  
**Always know where our employees are and that they are all accounted for.**
- III. Advise emergency personnel of unaccounted for employee, and what their last known location was.

### 4. Tornado or Severe Storms Awareness

- A. Be ALERT to the onset of severe weather. Most deaths and injuries happen to people who are unaware and uninformed.
- B. If the weather begins to look stormy, turn on a radio to get the weather forecast. If you are connected to the internet, check The Weather Channel at [www.weather.com](http://www.weather.com).
  - I. If a tornado "watch" is issued for your area, it means that a tornado is "possible."
  - II. If a tornado "warning" is issued, it means that a tornado has actually been spotted, or is strongly indicated on radar, and it is time to go to a safe shelter immediately.
- C. Be alert to what is happening outside as well. Here are some of the things that people describe when they tell about a tornado experience:
  - I. A sickly greenish or greenish black color to the sky.
  - II. If there is a watch or warning posted, then the fall of hail should be considered as a real danger sign. Hail can be common in some areas, however, and usually has no tornado activity along with it.
  - III. A strange quiet that occurs within or shortly after the thunderstorm.
  - IV. Clouds moving by very fast, especially in a rotating pattern or converging toward one area of the sky.
  - V. A sound similar to a waterfall or rushing air at first, but turning into a roar as it comes closer. The sound of a tornado has been likened to that of both railroad trains and jets.
  - VI. Debris dropping from the sky.
  - VII. An obvious "funnel-shaped" cloud that is rotating, or debris such as branches or leaves being pulled upwards, even if no funnel cloud is visible.



## D. Protection from the storm

- I. Ensure that all tools, materials and equipment are secured in such a manner that they will not be displaced by a storm. This includes bringing all materials inside of a building or securing the material with chains and locks or placing it in gang or job boxes. Ladders, lumber (including plywood and pallets), wire spools, trash, debris, uninstalled material and any other objects should be considered potential projectiles. If we are working from elevated surfaces, care should be taken as to not have anything near an edge.
- II. Leave free-span rooms such as warehouses, auditoriums, ballrooms, atrium areas, etc.
- III. The best place is a small, windowless, first floor, interior room like a closet or bathroom. If there is no downstairs interior room, a hall may be the best shelter. Put as many walls as you can between yourself and the tornado/storm.
- IV. The north and east areas of a building are the best places to assemble for a threat of a tornado, since tornado paths do follow a pattern of southwest to northeast.
- V. Try to find something sturdy to cover yourself to protect you from debris.
- VI. In a high-rise office building, central stairwells are good. Enter the stairwell and immediately descend to the lowest floor. Do not use the elevator.
- VII. On a large construction project evacuate the office trailers. Move to a predetermined assembly point inside the construction structure (if available).
- VIII. Notify Safety Department immediately of the situation to allow them to notify other project and management of pending weather issues. As conditions allow the DSM will attempt to assist in post storm recovery activities.

## 6. After a Tornado or Other Emergency

- A. Check for injuries and provide first aid.
- B. Check for safety problems in and around the area where you are located, i.e., gas, water and sewage line breaks; downed electric lines and breaks in electrical lines; building damage such as cracks in the walls, chimneys, and foundation.
- C. Contain all dangerous spills for clean-up.
- D. Turn on radio and listen for instructions from public safety.
- E. Avoid using the telephone except for emergency purposes and to notify the Safety Department of the event.

## 7. Program Review

- A. Incident driven updates to ensure corrective or preventative actions have been adopted
- B. Compliance with OSHA standards

**TRAINING**

Management and Safety shall attend annual training as needed

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

16.1.1 Emergency Preparedness Procedure



## Project Emergency Preparedness Plan

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_

Directions from a major intersection (in a rural area): \_\_\_\_\_

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### Emergency Contacts and Phone Numbers

Safety: \_\_\_\_\_ Phone: \_\_\_\_\_

Alt #: \_\_\_\_\_

Alternate: \_\_\_\_\_ Phone: \_\_\_\_\_

Operations: \_\_\_\_\_ Phone: \_\_\_\_\_

Alt #: \_\_\_\_\_

Alternate: \_\_\_\_\_ Phone: \_\_\_\_\_

Supervisor: \_\_\_\_\_ Phone: \_\_\_\_\_

Alt #: \_\_\_\_\_

Alternate: \_\_\_\_\_ Phone: \_\_\_\_\_

HR Manager: \_\_\_\_\_ Phone: \_\_\_\_\_

Alt #: \_\_\_\_\_

Alternate: \_\_\_\_\_ Phone: \_\_\_\_\_

### Project Assembly Points (Primary and Alternate)

All employees will remain at their assembly point location until accounted for by Management

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## Earthquake Preparedness Program

**PROGRAM STATEMENT**

This document outlines the procedures that will take effect when an Earthquake or aftershock affects a Wilkinson Electric business unit, job site or work area. When conditions are met, specific actions will be taken by Wilkinson Electric to ensure effective preparations and protocols established to support our employees and to maintain business continuity. The Wilkinson Electric Emergency Management Team will review the Wilkinson Electric Business Continuation Plan (BCP) and determine if the plan needs to be activated in the event an office is unable to operate following the storm because of devastation to the building, IT equipment, electrical power or accessibility.

**DEFINITIONS**

1. Earthquake: A sudden slipping or movement of a portion of the earth’s crust accompanied and followed by a series of vibrations.

Classification of Earthquakes:

- A. Richter scale measures how much the ground shakes 60 miles from the earthquakes Epicenter; the Richter magnitudes are based on a logarithmic scale (base 10). Using this scale, a magnitude 5 earthquake would result in ten times the level of ground shaking as a magnitude 4 earthquake (and 30 times as much energy would be released).
- B. Mercalli intensity is based upon observations of the resulting earthquake damage and not actually measured on instruments.

Richter Magnitude	Mercalli Intensity	Description
2	I	Usually not felt but detected by instruments.
	II	Felt by very few people.
3	III	Felt by many, often mistaken for a passing vehicle.
	IV	Felt by many indoors, dishes and doors disturbed.
4	V	Felt by nearly everyone. People awakened. Cracked walls, trees disturbed.
5	VI	Felt by all. Many run outdoors. Furniture moves. Slight damage occurs.
	VII	Everyone runs outdoors. Poorly built buildings suffer severe damage. Slight damage every where else.
6	VIII	Everyone runs outdoors. Moderate to major damage. Minor damage to specially designed buildings. Chimneys and walls collapse.
7	IX	All buildings suffer major damage. Ground cracks, pipes break, foundations shift.
	X	Major damage. Structures destroyed. Ground is badly cracked. Landslides occur.
8	XI	Almost all structures fall. Bridges wrecked. Very wide cracks in ground.
	XII	Total destruction. Ground surface waves seen. Objects thrown into the air. All construction destroyed.

2. Aftershock: An earthquake of similar or lesser intensity that follows the main earthquake. Can occur hours, days, weeks and even months after an earthquake.
3. Fault: The fracture across which displacement has occurred during an earthquake. The slippage may range from less than an inch to more than 10 yards in a severe earthquake.
4. Epicenter: The place on the earth’s surface directly above the point on the fault where the earthquake ruptures began. Once fault slippage begins, it expands along the fault during the earthquake and can extend hundreds of miles before stopping.
5. Seismic Waves: Vibrations that travel outward from the earthquake fault at speeds of several miles per second. Although fault slippage directly under a structure can cause considerable damage, the vibrations of seismic waves cause most of the destruction during earthquakes.

6. Magnitude: The amount of energy released during an earthquake, which is computed from the amplitude of the seismic waves. A magnitude of 7.0 on the Richter Scale indicates an extremely strong earthquake. Each whole number on the scale represents an increase of about 30 times more energy released than the previous whole number represents (Richter scale is represented in tenths).
7. Intensity: the measure, in terms of degrees, of ground shaking and damage to the surface and the effects on humans by earthquakes.
8. Wilkinson Electric Emergency Management Team: CEO/President, CFO, SVP-Legal, SRVP-Safety, VP-Human Resources, VP-IT, President-Wilkinson Electric Commercial, President-Wilkinson Electric Communications President-Wilkinson Electric Residential, President-Infrastructure Solutions.
9. Division Emergency Preparedness Team: Wilkinson Electric Senior VP, Safety; Division President; Division Safety Manager; Division General Manager/Branch Manager of any affected area.
10. Emergency Preparedness Call: conference call initiated by Wilkinson Electric Senior VP, Safety. Call in number – 866-813-7040; Leader Passcode – 9032061; Participant Passcode – 3891844.
11. The Wilkinson Electric Employee Emergency Line: 1-866-698-7512 and will be updated by the Wilkinson Electric Senior VP Safety, Wilkinson Electric Corporate Office Manager or designated manager.
12. Wilkinson Electric Earthquake Color Code Advisory  
The following color code system will be used for the occurrence of an earthquake in the USA. Several of the following terms are explained in the Definitions section of this procedure.

**RED – An Earthquake has occurred**

**ORANGE – Aftershocks**

**YELLOW – Possible further incidents from infrastructure failures**

**GRAY – Post Earthquake (first 48 hours)**

**BLUE – Wilkinson Electric Business Continuity Plan has been implemented**

<b>WARNING</b>	An Earthquake Occurred
<b>WATCH</b>	Aftershocks are likely to occur after an earthquake
<b>ALERT</b>	Earthquake/Aftershocks have ended; be on the Alert for possible consequential accidents/damages/injuries as a result of failed infrastructure.
<b>POST</b>	First 48 hours after an earthquake. Time to do damage assessment.
<b>BCP</b>	A disaster is declared and office is unable to operate business as usual. Wilkinson Electric Business Continuity Plan is activated and is in effect

## RESPONSIBILITIES

1. Employees
  - A. Submit updated contact information at the time contact information changes.
  - B. Review the emergency preparedness plan
  - C. Participate in all training
  - D. Keep all critical business information on cloud servers
  - E. Create a back-up on an external drive
  - F. In the event of evacuation off site, take your computer with you
2. Supervisors
  - A. Shall keep a current contact list of employee contact and emergency contact information
  - B. Ensure employees have a current understanding of the emergency preparedness plan
  - C. Ask for volunteers to complete Hazard Prevention tasks and Emergency Evacuation or Shelter in Place checklist
  - D. Provide adequate resources when emergency protocol includes shelter in place.

3. Safety Management
  - A. Issue warnings and alerts to management and employees
  - B. Keep Wilkinson Electric Corporate Safety Department updated on current conditions

**PROGRAM REQUIREMENTS**

1. Notification System
    1. Earthquake Warning (Notice) – Advisory Level is **RED**
    2. Aftershock Watch – Advisory Level is **ORANGE**
      - I. Safety Department immediately calls the Wilkinson Electric VP-Safety and issues an alert that an earthquake has occurred and gives the location.
      - II. An Emergency Preparedness conference call will be initiated by the Wilkinson Electric Senior VP, Safety to include the Wilkinson Electric Emergency Management Team and the Division Emergency Preparedness Team. Other managers may be included at the discretion of the Division President.
      - III. During the Emergency Preparedness call, participants review the latest specifics of the earthquake and decide any actions needed to continue business activities and to discuss the potential applicability of the Wilkinson Electric Business Continuity Plan (BCP).
      - IV. The Wilkinson Electric Employee Emergency Line will be updated with the applicable and pertinent information.
  3. Post-Earthquake – **GRAY**
  4. Infrastructure Alert – Advisory Level is **YELLOW**
    - I. A Post Incident conference call will be initiated by the Wilkinson Electric Senior VP, Safety within 12 hours after the earthquake to include the Wilkinson Electric Emergency Management Team and the Business Emergency Preparedness Team. Other managers may be added at the discretion of the Division President.
    - II. Participants of the Post Incident call review any damage assessment to all affected Wilkinson Electric locations, the status of the office buildings, project sites, employees affected and any action and schedule further conference calls needed. All information will be reviewed with the Wilkinson Electric Emergency Planning Team.
    - III. Division President or VP Operations issues an update via e-mail to affected Wilkinson Electric Offices, project locations of the status.
    - IV. Wilkinson Electric Senior VP, Safety will update employees company-wide as needed.
    - V. The Wilkinson Electric Employee Emergency Line will be updated with the applicable and pertinent information.
    - VI. After business resumes Division Emergency Preparedness Team meets to review Lessons Learned and revise procedures if needed. The Wilkinson Electric Senior VP, Safety will participate in this meeting to ensure all items are discussed and improved upon and will deliver an update to the Wilkinson Electric Emergency Planning Team.
  5. Wilkinson Electric Division Continuity Plan Activated – Advisory Level – **BLUE**
    - I. A disaster has been declared and the applicable office / project site is unable to operate business as usual then the Business Emergency Planning Team will meet with the Wilkinson Electric Emergency Planning Team to review the implementation of the Wilkinson Electric BCP.
    - II. Daily updates will be communicated as needed and in accordance with the Wilkinson Electric BCP plan.
    - III. The Wilkinson Electric Employee Emergency Line will be updated with the applicable and pertinent information.
2. Program shall be reviewed once a year.

**TRAINING**

1. Management and supervisors shall be trained as needed when working in geographical areas at risk to earthquakes.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 16.2.1 Emergency Preparation Checklist
- 16.2.2 What to do during an Earthquake
- 16.2.3 What to do after an Earthquake





## EARTHQUAKE PREPARATION CHECKLIST

The best way is to respond during an earthquake is to prepare for the emergency before it happens. Few people can think clearly and logically in a crisis, so it is important to do so in advance when you have time to be thorough. Please complete the following checklist and always remember that the safety of individuals is the most important consideration:

### Check for Hazards

- Fasten shelves securely to walls.
- Place large or heavy objects on lower shelves.
- Store breakable items such as glass, in low areas such as closed cabinets with latches. Hang heavy items such as pictures and mirrors away from desks & sitting areas.
- Brace overhead materials & light fixtures.
- Repair any defective electrical wiring and leaky gas connections. These are potential fire risks.
- Secure a water heater by strapping it to the wall studs & bolting it to the floor.
- Store chemicals & flammable products securely in closed approved cabinets in which can be secured.
- Repair any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects.

### Identify Safe Places Indoors and Outdoors

- Under sturdy furniture such as a heavy desk or table.
- Against an inside wall.
- Away from where glass could shatter around windows, mirrors, pictures, or where heavy bookcases or other heavy furniture could fall over.
- In the open, away from buildings, trees, and telephone & electrical lines, overpasses, or elevated expressways.

### Educate Yourself, Co-Workers, and Family Members

- Contact your local emergency management office or American Red Cross chapter for more information on earthquakes. Also read the "How-To Series" for information on how to protect your property from earthquakes
- Teach all co-workers & family members how and when to turn off gas, electricity, and water

### Have Disaster Supplies on Hand

- Flashlight and extra batteries
- Portable battery-operated radio and extra batteries.
- First aid kit and manual.
- Emergency food and water; Nonelectric can opener
- Essential medicines

### Projects and Jobsites

- Post an emergency response plan and review it with employees
- Have a list of employees that are on the jobsite – update daily
- Designate a rally point for employees to report to after the disaster
- Take roll call to ensure all employees are accounted for
- If an employee is missing contact the emergency rescue service



## What to Do During an Earthquake

Stay as safe as possible during an earthquake. Minimize your movements to a few steps to a nearby safe place and stay indoors until the shaking has stopped and you are sure exiting is safe.

1. Indoors
  - A. **DROP** to the ground; take **COVER** by getting under a sturdy table or other piece of furniture; and **HOLD ON** until the shaking stops. If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
  - B. Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or furniture.
  - C. Stay in bed if you are there when the earthquake strikes. Hold on and protect your head with a pillow, unless you are under a heavy light fixture that could fall. In that case, move to the nearest safe place.
  - D. Use a doorway for shelter only if it is in close proximity to you and if you know it is a strongly supported, load bearing doorway.
  - E. Stay inside until shaking stops and it is safe to go outside. Research has shown that most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
  - F. Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.
  - G. **DO NOT** use elevators.
2. Outdoors
  - A. Stay there.
  - B. Move away from buildings, streetlights, and utility wires.
  - C. Once in the open, stay there until the shaking stops. The greatest danger exists directly outside buildings, at exits, and alongside exterior walls.
    - I. Ground movement during an earthquake is seldom the direct cause of death or injury. Most earthquake-related casualties result from collapsing walls, flying glass, and falling objects.
3. Moving Vehicle
  - A. Stop as quickly as safety permits and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires.
  - B. Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.
4. Trapped Under Debris
  - A. Do not light a match.
  - B. Do not move about or kick up dust.
  - C. Cover your mouth with a handkerchief or clothing.
  - D. Tap on a pipe or wall so rescuers can locate you. Use a whistle if one is available.
    - I. Shout only as a last resort. Shouting can cause you to inhale dangerous amounts of dust.



## What to Do After an Earthquake

1. Expect aftershocks. These secondary shockwaves are usually less violent than the main quake but can be strong enough to do additional damage to weakened structures and can occur in the first hours, days, weeks, or even months after the quake.
2. Listen to a battery-operated radio or television. Listen for the latest emergency information.
3. Use the telephone only for emergency calls.
4. Open cabinets cautiously. Beware of objects that can fall off shelves.
5. Stay away from damaged areas. Stay away unless your assistance has been specifically requested by police, fire, or relief organizations. Return home only when authorities say it is safe.
6. Be aware of possible tsunamis if you live in coastal areas. These are also known as seismic sea waves (mistakenly called "tidal waves"). When local authorities issue a tsunami warning, assume that a series of dangerous waves is on the way. Stay away from the beach.
7. Help injured or trapped persons. Remember to help your neighbors who may require special assistance such as infants, the elderly, and people with disabilities. Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.
8. Clean up spilled medicines, bleaches, gasoline or other flammable liquids immediately. Leave the area if you smell gas or fumes from other chemicals.
9. Inspect the entire length of chimneys for damage. Unnoticed damage could lead to a fire.
10. Inspect utilities:
  - A. Check for gas leaks. If you smell gas or hear blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from another business/location. If you turn off the gas for any reason, it must be turned back on by a professional.
  - B. Look for electrical system damage. If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. Be aware of any standing water and proceed accordingly.
  - C. Check for sewage and water lines damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes.



## Hurricane Preparedness Procedures

### PROGRAM STATEMENT

This document outlines the procedures that will take effect when a tropical storm or hurricane, as defined by this procedure, forms and enters the Atlantic or Caribbean Basin and has a potential to affect Wilkinson Electric business unit or units within the Atlantic Coast area from Miami, Florida to Maine or the Gulf Coast area from the Florida Keys to Texas. When conditions are met, specific actions will be taken by Wilkinson Electric management and operations to ensure effective preparations and protocols established to support the safety of our employees and to maintain business continuity.

### DEFINITIONS

1. Hurricane Season: The portion of the year having relatively high incidents of hurricanes in the Atlantic, Caribbean and Gulf of Mexico this season has been determined to be from June 1 to November 30.
2. Tropical Storm: A storm which the maximum sustained surface wind speed ranges from 39 mph to 73 mph.
3. Tropical Storm Alert: A tropical storm has entered the Atlantic or Gulf Coast area.
4. Tropical Storm Watch: Issued by the U.S. Weather Service for a specific coastal area that conditions are possible within 36 hours.
5. Tropical Storm Warning: Issued by the U.S. Weather Service when sustained winds within the range of 39 mph to 73 mph are expected in a specific coastal area within 24 hours or less.
6. Hurricane Alert: A hurricane is in the Caribbean and has potential to enter the Atlantic or Gulf Coast area.
7. Hurricane Watch: Issued by the U.S. Weather Service when hurricane conditions are possible within 36 hours.
8. Hurricane Warning: Issued by the U.S. Weather Service warning that sustained winds 74 mph or higher associated with a hurricane are expected within 24 hours or less.
9. Post Hurricane: The elapsed period of 12 hours after the eye of the hurricane has passed through the affected area.
10. Classification of Hurricanes - Hurricanes class 3 or greater are considered as major hurricanes

<b>Saffir-Simpson Hurricane Scale</b>			
<b>Scale Number (Category)</b>	<b>Sustained Winds (MPH)</b>	<b>Damage</b>	<b>Storm Surge</b>
1	74-95	<u>Minimal</u> : Minor damage to mobile homes, property, and vegetation. Localized flooding and road closures possible.	4-5 feet
2	96-110	<u>Moderate</u> : Damage to mobile homes, roofs, small crafts. Localized flooding, road closures, and power outages.	6-8 feet
3	111-130	<u>Extensive</u> : Damage to homes, roofs, property, and vegetation. Localized flooding, road closures and power outages.	9-12 feet
4	131-155	<u>Extreme</u> : Major damage to homes, roofs, property, and vegetation. Wide spread flooding, power outages and road closures.	13-18 feet
5	More than 155	<u>Catastrophic</u> : Destruction to buildings, homes, property, vegetation. Widespread flooding and power outages. Major roads and evacuation routes cut-off.	Greater than 18 feet

### 11. Wilkinson Electric Hurricane / Tropical Storm Color Code

The following color code system will be used for the threat of any tropical storm or hurricane activities in the Atlantic or Caribbean Basins that may affect the U.S. coast and any Wilkinson Electric operating locations.

Each of the following alert, watch and warning is explained in the Definitions section of this procedure and are issued by the National Weather Service. The color code threat level will be posted and updated on the Wilkinson Electric website and will include the areas affected.

- A. **GREEN** - No Tropical Storm or Hurricane Alerts, Watch or Warnings issued
- B. **YELLOW** - A Tropical Storm or Hurricane Alert/Advisory has been issued
- C. **ORANGE** - A Tropical Storm or Hurricane Watch has been issued
- D. **RED** - A Tropical Storm or Hurricane Warning has been issued
- E. **GRAY** - Post Tropical Storm or Hurricane (first 48 hours)
- F. **BLUE** - Wilkinson Electric Business Continuity Plan has been implemented

<b>GREEN - Clear</b>	No tropical storm or hurricane activity.
<b>ALERT</b>	Tropical storm or hurricane has been identified in the Atlantic or Caribbean Basin with the potential to reach affect the Atlantic or Gulf Coast areas.
<b>WATCH</b>	Tropical storm or hurricane has been identified in the Atlantic or Caribbean Basin with the potential to affect the Atlantic or Gulf Coast areas.
<b>WARNING</b>	Tropical storm or hurricane is expected to reach landfall within 24 hours.
<b>POST</b>	First 48 hours following tropical storm or hurricane reaching landfall. Time for recovery efforts, to do damage assessment and Lessons Learned.
<b>BCP</b>	A disaster is declared and any Wilkinson Electric office(s) is unable to operate business as usual. Wilkinson Electric Business Continuity Plan is activated and in effect.

- 12. Emergency Preparedness Conference Call: initiated by the Wilkinson Electric Senior VP safety. Conference call number is **(Insert Number)**. Passcode: **(Insert Passcode)**; Leader: **(Insert Leader Number)**
- 13. Wilkinson Electric Emergency Management Team: CEO/President, CFO, Senior VP Legal, Senior VP-Safety, VP-Human Resources, VP-IT, President-Wilkinson Electric Commercial & Industrial, President-Wilkinson Electric Communications, President-Wilkinson Electric Residential President, President-Infrastructure Solutions. Meetings will be via conference call.
- 14. Business Emergency Preparedness Team: Will be determined based on the potential affected areas and will be initiated by the Wilkinson Electric Senior VP, Safety and will include Division President, VP Operations, VP Finance, General Managers, Division Safety Directors / Managers and Division Human Resources Manager of all potentially affected business unit meetings will be held via conference call. Other managers will be added at the discretion of Division President.
- 15. Wilkinson Electric Employee Emergency Line - **(Insert Company Emergency Number)**. To be updated by SRVP Safety, Wilkinson Electric Corporate Office Manager or designated manager

**RESPONSIBILITIES**

- 1. Employees
  - A. Submit updated contact information at the time contact information changes.
  - B. Review the emergency preparedness plan
  - C. Participate in all training
  - D. Keep all critical business information on cloud servers
  - E. Create a back-up on an external drive
  - F. In the event of evacuation off site, take your computer with you
- 2. Supervisors
  - A. Shall keep a current contact list of employee contact and emergency contact information
  - B. Ensure employees have a current understanding of the emergency preparedness plan
  - C. Ask for volunteers to complete Hazard Prevention tasks and Emergency Evacuation or Shelter in Place checklist
  - D. Provide adequate resources when emergency protocol includes shelter in place.
- 3. Safety Manager
  - A. Issue warnings and alerts to management and employees



## B. Keep Wilkinson Electric Safety Department updated on current conditions

**PROGRAM REQUIREMENTS**

The following procedures that will take effect when a tropical storm or hurricane, as defined below, forms in the Atlantic or Caribbean Basin and have the potential to affect Wilkinson Electric business operations in the Atlantic Coast area from Miami, Florida to Maine or the Gulf Coast area from the Florida Keys to Texas

## 1. Hurricane or Tropical Storm Preparedness

## A. Tropical Storm

I. Tropical Storm Alert – Advisory Level is **YELLOW**

- 1) Wilkinson Electric Senior VP, Safety issues an alert via e-mail to all potentially affected Wilkinson Electric Offices in the projected path and/or impact area of the storm. The Division Safety Manager will communicate with the projects and satellite offices and distribute information.
- 2) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.

II. Tropical Storm Watch – Advisory Level is **ORANGE**

- 1) Wilkinson Electric Senior VP, Safety issues an alert to all potentially affected Wilkinson Electric offices that a WATCH has been issued and will possibly affect the area within 36 hours with an update of the movement, strength and the route storm is tracking. The Division Safety Managers will communicate with the projects and satellite offices and distribute information.
- 2) An Emergency Preparedness conference call will be initiated by the Wilkinson Electric Senior VP, Safety to include the Business Emergency Management Team. Other managers may be included at the discretion of the Division President.
- 3) Participants of the Emergency Preparedness call reviews latest update and route storm is tracking to determine potential impact and initiate preparations / actions needed.
- 4) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.

III. Tropical Storm Warning – Advisory Level is **RED**

- 1) Wilkinson Electric SRVP, Safety issues an alert that a WARNING has been issued and the storm is expected to arrive within 24 hours or less including information of the storm's strength, expected arrival time and potential / associated dangers. Division Safety Managers will communicate with the projects and satellite offices and distribute information.
- 2) An Emergency Preparedness conference call will be initiated by the Wilkinson Electric SRVP, Safety to include the Business Emergency Preparedness Team. Other managers may be included at the discretion of the Division President.
- 3) Participants of the Emergency Preparedness call review the latest specifics of the storm deciding on any actions needed to protect employees, properties and to continue business activities.
- 4) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.

## B. Hurricane

I. Hurricane Alert – Advisory Level is **YELLOW**

- 1) Wilkinson Electric SRVP, Safety issues an alert via e-mail to all potentially affected Wilkinson Electric Offices in the project path and/or impact area of the storm. Division Safety Managers communicate with the projects and satellite offices providing information such as evacuation routes, emergency contact info and any safety alerts/information to help employees prepare for the arrival of the hurricane.
- 2) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.

II. Hurricane Watch – Advisory Level is **ORANGE**

- 1) Wilkinson Electric SRVP, Safety issues an alert that a WATCH has been issued and the hurricane has the possibility to affect the identified Atlantic Coast area within 36 hours including an update of the storm movement, strength and the route storm is tracking. Division Safety Manager communicates with projects and satellite offices and distributes information.
- 2) An Emergency Preparedness conference call will be initiated by the Wilkinson Electric SRVP, Safety to include the Wilkinson Electric Emergency Management Team and the Business Emergency Preparedness Team to discuss preparations and actions needed and to review any applicable actions required and the application of the Wilkinson Electric BCP plan. Other managers may be added at the discretion of the Division President.

- 3) Participants of the Emergency Preparedness call review latest update, potential strength and route hurricane is tracking to determine potential impact, preparations / actions needed, potential office closing and potential impact of the Wilkinson Electric Business Continuity Plan.
  - 4) Division President or VP-Operations issues e-mail to all affected Wilkinson Electric Offices confirming the decisions of the Emergency Preparedness conference call. Division Safety Manager communicates with employees of their division, projects and satellite offices with safety alerts, applicable evacuation routes, contra-flow routes, emergency phone numbers and the Wilkinson Electric Office Pre-Evacuation Checklist.
  - 5) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.
- III. Hurricane Warning – Advisory Level is **RED**
- 1) Wilkinson Electric SRVP, Safety issues an alert that a WARNING has been issued and the hurricane is expected to arrive within 24 hours or less including information of the strength, expected arrival time and potential associated dangers. Division Safety Managers communicates with projects and satellite offices and distributes information.
  - 2) An Emergency Preparedness conference call will be initiated by the Wilkinson Electric SRVP, Safety to include the Wilkinson Electric Emergency Management Team and the Business Emergency Preparedness Team. Additional managers may be added at the discretion of the Business President.
  - 3) Participants of the Emergency Preparedness call review the latest specifics of the storm identifying preparations / actions needed to continue business activities. Date and time of the post disaster conference call will be scheduled at this time.
  - 4) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.
- IV. Post Tropical Storm or Hurricane - **GRAY**
- 1) An Post Incident conference call with be initiated by the Wilkinson Electric SRVP Safety to include the Business Emergency Preparedness Team and the Wilkinson Electric Emergency Management Team within 12 hours after the eye of the hurricane has passed.
  - 2) Participants of the Post Incident call review any damage assessment to all affected Wilkinson Electric locations, the status of the office buildings, project sites, employees affected, any action and schedule further conference calls needed.
  - 3) Division President or VP Operations issues an update via e-mail to affected Wilkinson Electric Offices keeping everyone updated of the current status. Division Safety Manager communicates with projects and satellite offices and distributes safety information.
  - 4) Wilkinson Electric SRVP, Safety will update employees company-wide with safety status.
  - 5) Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.
  - 6) After business resumes Business Emergency Preparedness Team meets to review Lessons Learned and revise procedures if needed.
- C. Wilkinson Electric Business Continuity Plan Activated – Advisory Level – **BLUE**
- I. A disaster has been declared and the applicable Wilkinson Electric office is unable to operate business as usual. The Wilkinson Electric BCP plan will be initiated.
  - II. All procedures and updates will be conducted in accordance with the Wilkinson Electric BCP plan.
  - III. Wilkinson Electric Employee Emergency Line will be updated with the appropriate and pertinent information.

**TRAINING**

Management and Safety shall receive training as needed when working in areas at risk for hurricanes.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

16.3.1 Pre-Evacuation Checklist

## HURRICANE EVACUATION CHECKLIST

Before office evacuation, please complete the following items on this checklist to secure your work area:

1. Clean desk tops and put away all loose items
2. Take all personal and valuable items home
3. If possible lock desks and file cabinets
4. If your work area is near a window – raise the blinds
5. If there are any items on the window sill put them in a safe place
6. Move all computers and electronic equipment away from windows and off the floor
7. Backup all electronic files to a disk or mobile hard drive and take them with you
8. Power off all computers, monitors and other electronic equipment
9. Remove laptops from docking stations and take them with you
10. Raise desks and filing cabinets to a higher position above potential flood level if located on the ground or 1<sup>st</sup> floor.
11. Move computers and other electronic or electrical equipment to a higher position above potential flood level if located on the ground or 1<sup>st</sup> floor
12. Unplug all office equipment and all other electrical / electronic items
13. Secure and lock all sensitive / confidential documents
14. Obtain a copy of the latest contact information list
15. Close all internal doors
16. As you leave turn off all lights and lock all exterior doors
17. Distribute employee contact information which should include:
  - A. Wilkinson Electric Employee Emergency phone number 435-673-9641
  - B. Names of employees
  - C. Phone numbers
  - D. Alternate phone number i.e. cell
  - E. Email address other than work so updates can be sent
  - F. If evacuating - address and contact information

**DRIVE CAREFULLY AND KEEP YOUR FAMILY SAFE!**



## Tornado Preparedness Program

### PROGRAM STATEMENT

This document outlines the programs that will take effect when a tornado warning affects an Wilkinson Electric business unit, project or work area. When conditions are met, specific actions will be taken by Wilkinson Electric to ensure effective preparations and protocols established to support our employees and to maintain business continuity. The Wilkinson Electric Emergency Preparedness Team with the Division Emergency Preparedness Team will review the Wilkinson Electric Business Continuation Plan (BCP) and determine if the plan needs to be activated in the event an office is unable to operate following the storm because of devastation to the building structure, IT equipment, electrical power, accessibility or other potential damage or dangers.

### DEFINITIONS

1. Tornado Season: Tornadoes are more prevalent from April through July, with May and June being the peak months. Like thunderstorms, tornadoes can form any time of the year.
2. Tornado Watch: Conditions are conducive to the development of tornadoes in and close to the watch area.
3. Tornado Warning: A tornado has actually been sighted by spotters or indicated on radar and is occurring or imminent in the warning area.
4. Post Tornado: The elapsed period of 12 hours after the tornado has passed through the area.
5. Wilkinson Electric Emergency Management Team: CEO, CFO, CIO, Senior VP, Legal, Senior VP, Safety, Senior VP, Human Resources, VP, IT, President-Wilkinson Electric Commercial, President-Wilkinson Electric Communications, President- Wilkinson Electric Residential, President- Wilkinson Electric Infrastructure Solutions. Meetings will be via conference call.
6. Division Emergency Preparedness Team: Will be determined based on the potential affected areas and will be initiated by the Wilkinson Electric Senior VP, Safety and will include Division President, Division VP-Finance, Division / Branch Managers, Division Safety Managers and Division Human Resources Manager of all potentially affected business units Meetings will be held via conference call. Other managers will be added at the discretion of Division President.
7. Division Emergency Preparedness Team Meeting: Will be initiated by Wilkinson Electric Senior VP, Safety and held via conference call.
8. Wilkinson Electric Employee Emergency Line **435-673-9641**. Will be updated by the Wilkinson Electric Senior VP Safety, Wilkinson Electric Office Manager or designated manager.
9. Classification of Tornadoes

#### Enhanced F Scale for Tornado Damage

FUJITA SCALE			DERIVED EF SCALE		OPERATIONAL EF SCALE	
F Number	Fastest ¼-mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)
0	40-72	45-78	0	65-85	0	65-85
1	73-112	79-117	1	86-109	1	86-110
2	113-157	118-161	2	110-137	2	111-135
3	158-207	162-209	3	138-167	3	136-165
4	208-260	210-261	4	168-199	4	166-200
5	261-318	262-317	5	200-234	5	Over 200

For more information visit the NOAA web site at <http://www.spc.noaa.gov/faq/tornado/ef-scale.html>

### RESPONSIBILITIES

1. Employees
  - A. Submit updated contact information at the time contact information changes.
  - B. Review the emergency preparedness plan

- C. Participate in all training
  - D. Keep all critical business information on cloud servers
  - E. Create a back-up on an external drive
  - F. In the event of evacuation off site, take your computer with you
2. Supervisors
- A. Shall keep a current contact list of employee contact and emergency contact information
  - B. Ensure employees have a current understanding of the emergency preparedness plan
  - C. Ask for volunteers to complete Hazard Prevention tasks and Emergency Evacuation or Shelter in Place checklist
  - D. Provide adequate resources when emergency protocol includes shelter in place.
3. Safety Manager
- A. Issue warnings and alerts to management and employees
  - B. Keep Wilkinson Electric Safety Department updated on current conditions

### PROGRAM REQUIREMENTS

1. Emergency Preparation
- A. Wilkinson Electric Office/Project Pre-Tornado Checklist shall be used to prepare for the emergency when the notification of a "Tornado Watch and Warning" is received.
  - B. Emergency Preparation Checklist Shelter in Place
  - C. Supervisor shall keep an updated Emergency Contact Information List
2. Tornado Response
- A. Tornado Watch - If a tornado watch has been issued for your area, please complete the following items on the checklist if time allows. Always remember that the safety of individuals is the most important consideration:
- I. Office Personnel
    - 1) Clean desk tops and put away all loose items
    - 2) Secure all personal and valuable items
    - 3) If possible lock desks and file cabinets
    - 4) If your work area is in close proximity to a window – raise the blinds
    - 5) If there are any items on the window sill put them in a safe place
    - 6) Move all computers and electronic equipment away from windows and off the floor
    - 7) Backup all electronic files to a disk or mobile hard drive and take them with you
    - 8) Be prepared to power off all computers, monitors and other electronic equipment
    - 9) Secure and lock all sensitive / confidential documents
    - 10) If a camera is available, take pictures around office, warehouse and lay down areas.
    - 11) Obtain a copy of the latest contact information list
      - a) Home telephone #'s
      - b) Cell phone #'s (including personal phones)
      - c) Emergency contact person and phone number
- B. Tornado Warning
- If a Tornado Warning has been issued for your area, do not wait to see the tornado. Immediately seek safety but try to remember the following:
- I. Office Personnel
    - 1) Power off all computers, monitors and other electronic equipment
    - 2) Remove laptops from docking stations and take them with you
    - 3) Move away from the windows
    - 4) Close all internal doors
    - 5) Assemble at the designated tornado shelter area.
      - a) If there is not a designated shelter, assemble in an interior room on the lowest level of the building away from any windows
    - 6) Make sure you have the following telephone numbers with you:
    - 7) Wilkinson Electric Employee Emergency Line **(Insert Company Emergency Phone Number)**
  - II. Project
    - 1) Secure all personal items and tools
    - 2) Assemble at the designated tornado shelter or if a designated shelter is not available assemble in an interior room on the lowest level of the building away from any windows
    - 3) If you are in the open or the project does not consist of an adequately complete building, move away from any structures, vehicles, trees or overhead power lines, lay down in a low area such as a ditch and cover your head and neck with your hands and arms.

- 4) Immediately after the tornado passes meet at the predetermined assembly location for roll call to account for all Wilkinson Electric employees on site.
  - 5) After the tornado passes stay away from any downed power lines or structures until they have been determined to be safe by proper authorities.
- III. On the Road
- 1) If you are in a vehicle and a tornado is approaching, do not try to out run the tornado.
  - 2) Pull off the road away from any trees or overhead power lines
  - 3) If possible seek shelter in a nearby building in an interior room on the lowest level of the building
  - 4) If no buildings are available move to a low area such as a ditch, well away from your vehicle, lay down and cover your head and neck with your hands and arms
  - 5) Do not seek shelter under a bridge or overpass
  - 6) Do not remain in your vehicle
3. Wilkinson Electric Notification System
- A. Tornado Watch
- I. Safety Manager notifies Wilkinson Electric Senior VP, Safety immediately and issues an alert that a WATCH has been issued and there is a possibility of tornadoes in the respective area.
  - II. An Emergency Preparedness Team call will be initiated by the Wilkinson Electric Senior VP, Safety.
  - III. Division Emergency Preparedness Team reviews latest update, potential strength and route storm cell is tracking to determine potential impact and preparations / actions needed, potential office closing.
  - IV. Wilkinson Electric Senior VP, Safety issues e-mail to all affected Wilkinson Electric Offices. Division Safety Manager notifies employees of the decisions of the Division Emergency Planning Team including the applicable programs to be followed, emergency phone numbers and the Wilkinson Electric Office Pre-Evacuation Checklist.
- B. Tornado Warning
- I. Safety Department notifies Wilkinson Electric Senior VP, Safety immediately and issues an alert that a WARNING has been issued and a tornado has been reported in the area, its location and direction of travel.
  - II. A Division Emergency Preparedness Team and an Wilkinson Electric Emergency Planning Team conference call will be initiated by the Wilkinson Electric Senior VP, Safety.
  - III. Division Emergency Preparedness Team and the Wilkinson Electric Emergency Planning Team reviews the latest specifics of the storm and identifies any actions needed to continue business activities as related to the Wilkinson Electric Business Continuity Plan.
  - IV. Business Emergency Preparedness Team post incident conference call scheduled.
  - V. Wilkinson Electric employee Emergency Lines will be updated with the applicable and pertinent information.
- C. Post Tornado
- I. Division Emergency Preparedness Team conducts a scheduled conference call within 12 hours after the Tornado has passed.
  - II. Division Emergency Preparedness Team and Wilkinson Electric Emergency Planning Team review any damage assessment to all affected Wilkinson Electric locations, the status of the office buildings, project sites, employees affected and any action and schedule further conference calls.
  - III. Wilkinson Electric Senior VP Safety, issues an update via e-mail to affected Wilkinson Electric Offices and Division Safety Manager communicates with project locations and satellite offices to keep everyone updated of the current status.
  - IV. Wilkinson Electric Senior VP, Safety will update employees company-wide as needed.
  - V. Wilkinson Electric employee Emergency Lines will be updated with the applicable and pertinent information.
4. Wilkinson Electric Business Continuity Plan Activated
- After business resumes Division Emergency Preparedness Team meet to review Lessons Learned and identify any revisions to the programs if needed
- A. A disaster has been declared and the applicable office / project site is unable to operate business as usual. The Wilkinson Electric Emergency Planning Team and the Division Emergency Preparedness Team take actions to activate the Wilkinson Electric BCP.
  - B. Updates will be delivered in accordance with the Wilkinson Electric BCP plan to all Wilkinson Electric locations.
5. Program Review shall be at least once a year.

**TRAINING**

Management and supervisors shall receive training as needed when working in areas at risk for tornado's.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

16.4.1 Tornado Pre-Evacuation Checklist



## PRE-TORNADO CHECKLIST

### TORNADO WATCH

If a tornado watch has been issued for your area, please complete the following items on the checklist **if time allows**. Always remember that the safety of individuals is the most important consideration:

#### A. At the Office

- Clean desk tops and put away all loose items
- Secure all personal and valuable items
- If possible lock desks and file cabinets
- If your work area is in close proximity to a window – raise the blinds
- If there are any items on the window sill put them in a safe place
- Move all computers and electronic equipment away from windows and off the floor
- Backup all electronic files to a disk or mobile hard drive and be prepared to take them with you
- Be prepared to power off all computers, monitors and other electronic equipment
- Secure and lock all sensitive / confidential documents
- If a camera is available, take pictures around office, warehouse and lay down areas.
- Obtain a copy of the latest contact information list
  - List must be submitted to Business Emergency Planning Team
  - List should include:
    - ✓ Home telephone #'s
    - ✓ Cell phone #'s (including personal phones)
    - ✓ Emergency contact person and phone number

### TORNADO WARNING

- #### A. If a Tornado Warning has been issued for your area, do not wait to see the tornado. Immediately seek safety but try to remember the following:
- Power off all computers, monitors and other electronic equipment
  - Remove laptops from docking stations and take them with you
  - Move away from the windows
  - Close all internal doors
  - Assemble at the designated tornado shelter area. If there is not a designated shelter, then assemble in an interior room on the lowest level of the building away from any windows
  - Make sure you have the following telephone numbers with you:
  - Wilkinson Electric Employee Emergency Line **435-673-9641**
- #### B. At the Project
- Secure all personal items and tools
  - Assemble at the designated tornado shelter or if a designated shelter is not available assemble in an interior room on the lowest level of the building away from any windows
  - If you are in the open or the project does not consist of an adequately complete building, move away from any structures, vehicles, trees or overhead power lines, lay down in a low area such as a ditch and cover your head and neck with your hands and arms.
  - Immediately after the tornado passes meet at the predetermined assembly location for roll call to account for all Wilkinson Electric employees on site.
  - After the tornado passes stay away from any downed power lines or structures until they have been determined to be safe by proper authorities.
- #### C. On the Road
- If you are in a vehicle and a tornado is approaching, do not try to out run the tornado.
  - Pull off of the road away from any trees or overhead power lines
  - If possible seek shelter in a nearby building in an interior room on the lowest level of the building
  - If no buildings are available move to a low area such as a ditch, well away from your vehicle, lay down and cover your head and neck with your hands and arms
  - Do not seek shelter under a bridge or overpass
  - Do not remain in your vehicle



## Severe Winter Storm Preparedness Program

### PROGRAM STATEMENT

This document outlines the procedures that will take effect when a Severe Winter Storm has the potential to affect any Wilkinson Electric business operations. When conditions are met, specific actions will be taken by Wilkinson Electric management and operations to ensure effective preparations and protocols established to support the safety of our employees and to maintain business continuity.

### DEFINITIONS

1. Winter weather advisory: When a significant winter storm or hazardous winter weather is occurring, imminent, and is an inconvenience.
2. Winter storm watch: A severe winter weather (i.e., heavy snow, heavy sleet, significant freezing rain, or a combination of events) is expected, but not imminent, for watch area; provides 12 to 36 hours notice of the possibility of severe winter weather.
3. Winter storm warning: A significant winter storm or hazardous winter weather is occurring, imminent, or likely, and is a threat to life and property.
4. Blizzard warning: winds that are at least 35 mph or greater, blowing snow that will frequently reduce visibility to ¼ mile or less for at least three hours, and dangerous wind chills are expected in the warning area.
5. Wind chill index: The calculation of temperature that takes into consideration the effects of wind and temperature on the human body. This is not the actual air temperature, but what it feels like to the average person.
6. Wind Chill Equivalent Index

		Temperature (Fahrenheit)																	
		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40
Wind (mph)	60	-98	-91	-84	-76	-69	-62	-55	-48	-40	-33	-26	-19	-11	-4	3	10	17	25
	55	-97	-89	-82	-75	-68	-61	-54	-46	-39	-32	-25	-18	-11	-3	4	11	18	25
	50	-95	-88	-81	-74	-67	-60	-52	-45	-38	-31	-24	-17	-10	-3	4	12	19	26
	45	-93	-86	-79	-72	-65	-58	-51	-44	-37	-30	-23	-16	-9	-2	5	12	19	26
	40	-91	-84	-78	-71	-64	-57	-50	-43	-36	-29	-22	-15	-8	-1	6	13	20	27
	35	-89	-82	-76	-69	-62	-55	-48	-41	-34	-27	-21	-14	-7	0	7	14	21	28
	30	-87	-80	-73	-67	-60	-53	-46	-39	-33	-26	-19	-12	-5	1	8	15	22	28
	25	-84	-78	-71	-64	-58	-51	-44	-37	-31	-24	-17	-11	-4	3	9	16	23	29
	20	-81	-74	-69	-61	-55	-48	-42	-35	-29	-22	-15	-9	-2	4	11	17	24	30
	15	-77	-71	-64	-58	-51	-45	-39	-32	-26	-19	-13	-7	0	6	13	19	25	32
	10	-72	-66	-59	-53	-47	-41	-35	-28	-22	-16	-10	-4	3	9	15	21	27	34
	5	-63	-57	-52	-46	-40	-34	-28	-22	-16	-11	-5	1	7	13	19	25	31	36

Frostbite Times:		
5 Minutes	10 Minutes	30 Minutes

For more information visit weather.com at: [http://www.weather.com/ready/winter/wind\\_chill.html](http://www.weather.com/ready/winter/wind_chill.html)

7. Frostbite: Frostbite is an injury to the body caused by freezing body tissue.
8. Hypothermia: Hypothermia is abnormally low body temperature (below 95 degrees Fahrenheit).
9. Post severe winter storm: The elapsed period of 12 hours after the storm has passed through the area.
10. Division Emergency Preparedness Team: Will be determined based on the potential affected areas and include Division President, Division VP-Finance, Division / Branch Managers, Division Safety Managers and Division Human Resources Manager of all potentially affected business units. Meetings will be initiated by the Wilkinson Electric Senior VP, Safety and be held via conference call. Other managers will be added at the discretion of Division President
11. Wilkinson Electric Emergency Management Team: CEO/President, CFO, Senior VP Legal, Senior VP, Safety, Senior VP Human Resources, VP-IT, President – Commercial & Industrial, President – Communications, President – Residential, President - Infrastructure Solutions.
12. Wilkinson Electric Employee Emergency Line **435-673-9641** will be maintained by the Wilkinson Electric Senior VP, Safety, Wilkinson Electric Office Manager or designated manager.

**RESPONSIBILITIES**

1. Employees
  - A. Submit updated contact information at the time contact information changes.
  - B. Review the emergency preparedness plan
  - C. Participate in all training
  - D. Keep all critical business information on cloud servers
  - E. Create a back-up on an external drive
  - F. In the event of evacuation off site, take your computer with you
2. Supervisors
  - A. Ensure employees have a current understanding of the emergency preparedness plan
  - B. Keep a current contact list of employee contact information including emergency contacts for the employee
  - C. Ask for volunteers to complete Hazard Prevention tasks and Emergency Evacuation or Shelter in Place checklist
  - D. Provide adequate resources when emergency protocols include shelter in place.
3. Safety Department
  - A. Issue alerts and updates regarding the severe winter storms
  - B. Submit situation reports to projects and satellite offices

**PROGRAM REQUIREMENTS**

1. Winter Storm Preparedness Procedures
  - A. Winter Storm Watch
    - I. Division Safety Manager issues an alert that a WATCH has been issued with the possibility of severe winter storms in the respective identified area and notifies Wilkinson Electric Senior VP Safety immediately.
    - II. A Division Emergency Planning Team meeting will be scheduled by the Wilkinson Electric Senior VP Safety.
    - III. Division Emergency Planning Team reviews latest update, potential strength and route storm cell is tracking to determine potential impact and preparations / actions needed, potential office closing.
    - IV. Division Safety Manager issues e-mail to all affected Wilkinson Electric Offices, project locations notifying employees with an update and include the applicable procedures to be followed, emergency phone numbers
    - V. Emergency contact lists will be reviewed, updated and distributed.
    - VI. Wilkinson Electric Employee Emergency Line will be updated with the applicable and pertinent information.
2. Winter Storm Warning
  - A. Division Safety Manager issues an alert that a winter storm WARNING has been issued for the respective identified area, estimated arrival time, its location and direction of travel and notifies Wilkinson Electric Senior VP, Safety immediately.
  - B. A Division Emergency Planning Team meeting will be scheduled by the Wilkinson Electric Senior VP, Safety.
  - C. Division Emergency Planning Team reviews the latest specifics of the storm and decides any actions needed to continue business activities and schedule post storm and any other conference calls needed.
  - D. Division Safety Manager submits situation report to projects and satellite offices.

- E. Wilkinson Electric Employee Emergency Line will be updated with the applicable and pertinent information.
3. Post Winter Storm
    - A. Division Emergency Planning Team conducts the scheduled post storm conference call within 12 hours after the Winter Storm has passed.
    - B. Division Emergency Planning Team reviews any damage assessment to all affected Wilkinson Electric locations, the status of the office buildings, project sites, employees affected, and any action and schedule further conference calls needed.
    - C. Division Safety Manager issues an update via e-mail to projects and satellite offices to update affected employees of the current status.
    - D. Wilkinson Electric Senior VP, Safety to update employees company-wide as needed.
    - E. Wilkinson Electric Employee Emergency Line will be updated with the applicable and pertinent information.
    - F. After business resumes Division Emergency Planning Team meets to review Lessons Learned and revise procedures if needed.
  4. Wilkinson Electric Business Continuity Plan Activated
    - A. A disaster has been declared and the applicable Wilkinson Electric operating office is unable to operate business as usual and the Wilkinson Electric Emergency Planning Team and the Wilkinson Electric Emergency Management Team have activated the Wilkinson Electric BCP plan.
    - B. Timely updates will be given in accordance with the Wilkinson Electric BCP plan.
  5. Program Review at least once a year

**TRAINING**

1. Management and supervisors shall receive training as needed
2. Contact your local emergency management office or American Red Cross chapter for more information on winter storms

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 16.5.1 Sever Winter Storm Preparation Checklist

## SEVERE WINTER STORM PREPARATION CHECKLIST

If a winter storm warning has been issued for your area, please complete the following items on the checklist. Always remember that the safety of individuals is the most important consideration:

1. Office Shutdown
  - A. Prepare to close the office allowing enough time for all employees to get home safely
  - B. Clean desk tops and put away all loose items
  - C. Secure all personal and valuable items
  - D. If possible lock desks and file cabinets
  - E. Backup all electronic files to a disk or mobile hard drive
  - F. Remove laptops from docking stations and take them with you
  - G. Power off all computers, monitors and other electronic equipment
  - H. Secure and lock all sensitive / confidential documents
  - I. If a camera is available, take pictures around office, warehouse and lay down areas.
  - J. Obtain a copy of the latest contact information list
    - I. List must be submitted to Business Emergency Planning Team
      - 1) Home telephone #'s
      - 2) Cell phone #'s (including personal phones)
      - 3) Email addresses other than work where updates can be sent
      - 4) Emergency contact person and phone number
    - II. Make sure you have the Wilkinson Electric Employee Emergency Line 435-673-9641 with you.
2. At the Job Site
  - A. Prepare to shut down the job site allowing enough time before the storm arrives for all employees to get home safely
  - B. Secure all personal items and tools

## Fire Safety Program

### PROGRAM STATEMENT

In the event Wilkinson Electric is performing work activities where the potential fire hazards could be present, employees performing those tasks will be trained to prevent fires. In the event of a fire, take immediate action to prevent potential hazards that could result in injuries. If Wilkinson Electric is not performing work tasks that could produce fire hazards, then fire extinguishers are not required and should not be furnished. The General Contractor should provide fire extinguishers at intervals around the project if they feel fire extinguishers are needed for general purpose.

### DEFINITIONS

1. Safety trained: Employee trained to recognize the hazards associated with fires and the use of fire extinguisher.
2. Fire Watch: Employee trained in fire extinguisher use, which will look for stray sparks and ignition of other fire hazards and keep unauthorized persons out of the hot work area.

### RESPONSIBILITIES

1. Employee
  - A. Shall take those actions necessary to prevent fires in the workplace
  - B. Attend training as needed and adhere to program requirements
2. Supervisor
  - A. Ensure fire extinguishers are in place when needed
  - B. Perform and document monthly inspections on fire extinguisher

### PROGRAM REQUIREMENTS

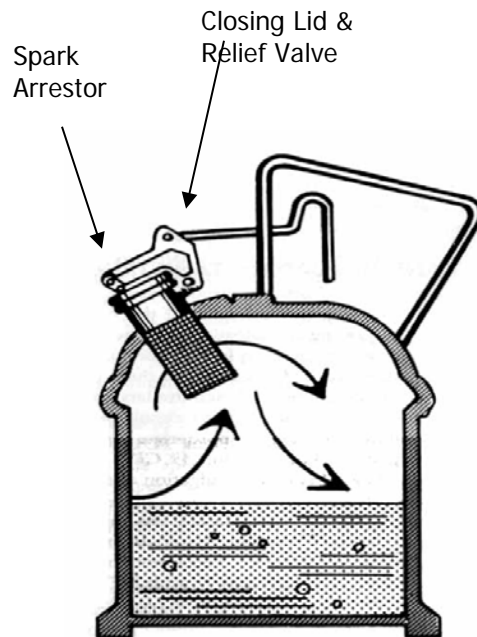
All activities involving open flames or producing heat or sparks including brazing, cutting, grinding, soldering, and arc welding require special consideration.

1. General Fire Safety
  - A. Each work place will be arranged and equipped as to prevent or at least control fire hazards, first to Employees, then property.
  - B. All work areas, where there is a potential for fires to occur, must have available and maintain proper fire extinguishers so as to quickly extinguish any small and incipient stage fires before a greater risk to Employees safety and property can occur.
  - C. All employees shall have the proper training before trying to fight a fire. Sound judgment must be used for small extinguishable fires. If a small inconsequential fire, that could easily be extinguished, is left unattended, it could grow and cause severe damage to the workplace. On the other hand, if a fire grows too quickly into a blaze, do not try to extinguish it, back away and call the fire department.
  - D. Wilkinson Electric will never risk the safety of our Employees by requiring them to fight fires to save property, let the fire department handle the fire and be ready to assist if requested in a non-hazardous capacity.
  - E. Keep storage and working areas free of trash.
  - F. Place oily rags in an OSHA compliant covered container.
  - G. Do not refuel gasoline-powered equipment in a confined space, especially in the presence of an open flame such as a furnace or water heater or a spark producing source.
  - H. Do not refuel gasoline-powered equipment while it is hot.
  - I. Keep flammable liquids stored in tightly closed, self-closing, spill-proof containers. Pour from storage drums only what you'll need.
  - J. Store flammable liquids away from spark-producing sources.
  - K. Use flammable liquids only in well-ventilated areas.
  - L. Look for old wiring, worn insulation and broken electrical fittings. Report any hazardous condition to your supervisor.
  - M. Prevent motors from overheating by keeping them in good working order. A spark from rough-running motor can ignite the oil and dust in it.
  - N. Utility lights should always have some type of wire guard over them. Heat from an uncovered light bulb can easily ignite ordinary combustibles.
  - O. Do not misuse fuses. Never install a fuse rated higher than specified for the circuit.
  - P. Investigate any appliance or electrical equipment that smells strange. Unusual odors can be the first sign of fire.
  - Q. Do not overload wall outlets. Load them for their intended use and ratings. Overloading them can cause overheating of the wiring system and could lead to a fire.



2. Inspection and Storage

- A. Supervisor shall routinely inspect all fire extinguishers at least monthly.
- B. In addition to the monthly inspection, an in-depth/thorough inspection shall be completed at regular intervals, not more than one year apart or when specifically indicated by a routine inspection. Extinguishers shall be thoroughly examined and/or recharged or repaired to ensure operability and safety and replaced as needed.
- C. Extinguishers removed from their locations to be inspected, repaired or recharged shall be replaced by spare extinguishers of the same type during the period they are gone.
- D. Each extinguisher shall have a durable tag securely attached to show the date of the last thorough inspection, maintenance or recharge date and the initial or signature of the person who performs this service.
- E. Inspection and maintenance guidelines for all firefighting equipment:
  - I. Portable fire extinguishers shall be inspected at regular intervals, not more than one year apart, extinguishers shall be thoroughly examined and/or recharged or repaired to ensure operability and safety or replaced as needed. Each extinguisher shall have a durable tag securely attached to show the maintenance or recharge date and the initial or signature of the person performing the service.
  - II. Fire extinguisher hose nozzles should be kept free of obstruction at all times.
  - III. In areas where insects tend to nest in protected small areas, the nozzle should be covered with small cloth or plastic bag to keep it free of obstructions, but not to impede the operation of the extinguisher.
  - IV. A fire extinguisher that is empty, defective, or has been discharged should be removed from service; a red (out of service) tag attached and should be replaced by a Competent Person or recharged by a qualified service Division.
- F. Due diligence must be used in keeping sprinkler systems in good operating condition.
- G. All flammable liquids/solvents should be kept in approved, properly labeled containers.
- H. Small quantities of flammable liquids such as gasoline and solvents should be handled, transported, dispensed and stored in approved, marked safety cans. Safety cans have self-closing caps, flame arrestors, and pressure relief vents. The contents must be properly labeled.
- I. It is recommended by the NFPA to follow a color code for fuel cans. The color coding is:
  - I. Gasoline cans are **RED**
  - II. Diesel fuel cans are **YELLOW**
  - III. Kerosene cans are **BLUE**



3. Safety Cans

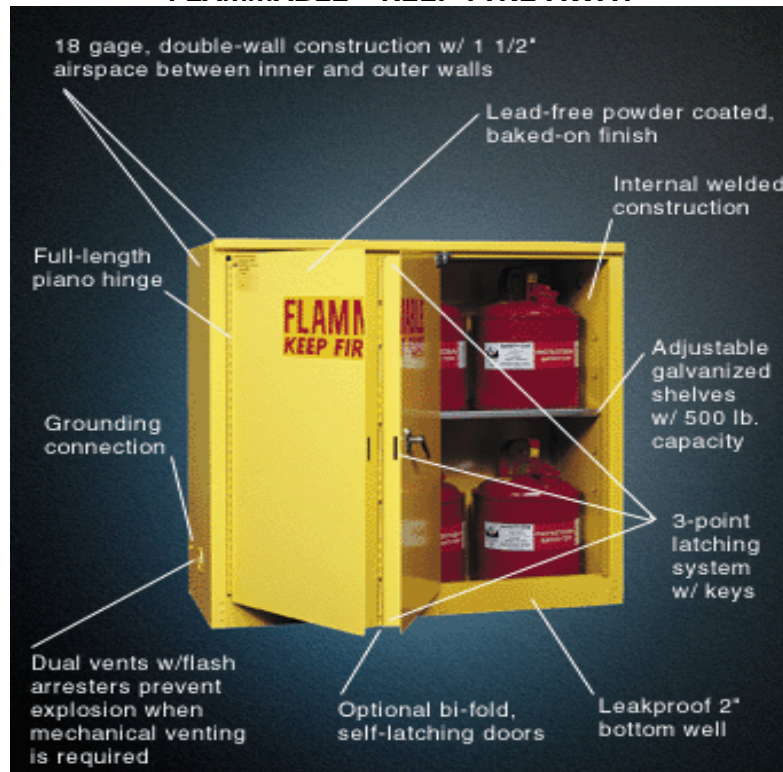
- A. Cans of oil, kerosene, oily rags, waste, etc., must not be allowed near sources of ignition, such as fires, flames and/or sparks.
- B. Gasoline, kerosene, or other flammable liquids must not be stored in glass containers.



- C. Do not store flammable liquids in open containers.
- D. Flammable and combustible materials such as oil or gasoline-soaked rags/clothing; oily waste and shavings must not be left lying around or piled on the ground. Spontaneous combustion is likely to result and cause a fire. These materials must be stored in approved and covered metal containers. These containers should have lids and should be emptied daily to maintain the premises in a safe and sanitary condition.
- E. Because of their convenient size, aerosol cans are often stored or set down in unsafe places. Keep in mind that all aerosol cans are pressurized and that this pressure increases when exposed to heat. If the can is overheated, it can violently explode sending projectiles and flames into the surrounding atmosphere. Aerosol spray cans containing various commodities are typically labeled as flammable. If the product isn't flammable, the propellant usually is. Do not store pressurized aerosol flammable cans in non-approved storage containers. Do not store aerosol cans in areas where the manufacturer's recommended storage temperature is exceeded.
- F. Storage cabinets, rooms or particular areas should be designated and approved to store flammable liquids. The Competent Person is to determine the approved method to store flammables.

Labeling for storage cabinets, room and areas should read

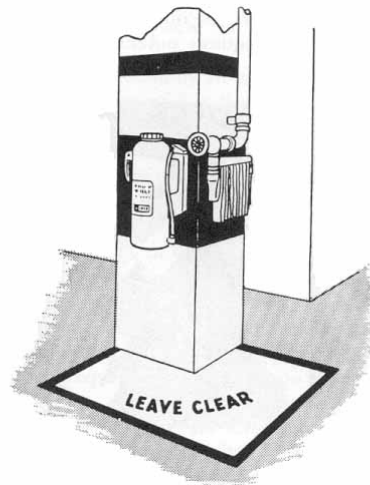
**"FLAMMABLE - KEEP FIRE AWAY"**



- 4. Flammable liquids storage cabinet
  - A. No more than 25 gallons of flammable liquids shall be stored outside an approved storage cabinet, unless a designated area has been provided which meets all regulatory requirements.
  - B. Not more than 60 gallons of flammable, or 120 gallons of combustible liquid shall be stored in any one storage cabinet or container and the total gallons shall not exceed the cabinet rating.
  - C. Dispensing drums should be equipped with special self-closing faucets and pressure vacuum relief vents. Also, a bonding wire should be attached to the tank and be made available for attachment to the receiving container.
  - D. Flammable liquids should be stored well away from the immediate work area.
  - E. Outside portable tank storage shall be located no closer than 25 feet from any building.
  - F. Firefighting equipment is for fire use only and shall be kept in its designated place at all times when not in use.
  - G. All fire protection equipment must be located in designated areas that are clearly identified with appropriate markings. This equipment should be located in the vicinity of likely fire hazards, but it must be accessible to operating personnel. The number, type, and location of extinguishers must meet all applicable standards.

## 5. Fire Prevention Procedures

- A. All fires shall be reported to any site supervision immediately. Your immediate supervisor may not be available at the time, but a supervisor from another crew and/or Division is available and would have the ability to summon assistance via a cell phone and/or radio.
- B. The prevention of fires is of utmost importance. Good housekeeping and equipment maintenance must be followed to keep fire hazards at a minimum.
- C. Good housekeeping should be maintained at all work locations and in all vehicles.
- D. Paper and other combustible materials should not be allowed to accumulate.
- E. Matches, cigarette lighters or any other source of ignition should not be carried into any area where a flammable atmosphere may be present.
- F. Smoking must be confined to areas specifically designated and far away from any flammable substance storage and/or use.
- G. Smoking is not permitted in the immediate vicinity of batteries, oil, and gasoline storage or in any area suspected or known to contain flammable substances, regardless of whether or not a "no smoking" sign is displayed. Any area subject to contamination by flammable substances should be designated as a "no smoking area," and a sign to that effect should be displayed.
- H. Before a source of ignition (such as a welding torch) is carried into a closed building or tank, a test should be made to detect the presence of a combustible atmosphere using an approved method (gas detector).
- I. The use of gasoline as a cleaning agent is strictly forbidden.
- J. Oil or gasoline from leaks should be cleaned up and disposed of in a prescribed manner.
- K. All leaks should be reported and repaired immediately. If immediate repair is not possible, adequate warning signs must be posted and extra precaution against fires instituted.
- L. In the event of a gas leak, all sources of ignition should be eliminated immediately.
- M. When testing for gas leaks, use soap suds or approved leak detector fluid. Never use an open flame.
- N. Since paint, insect sprays and most paint removers are usually flammable; their use near open flames or other sources of ignition must be avoided. Read the labels on the containers.
- O. Extinguishers shall be located where they will be readily accessible, easily seen and immediately available for use. They shall be located along normal paths of travel and where needed.

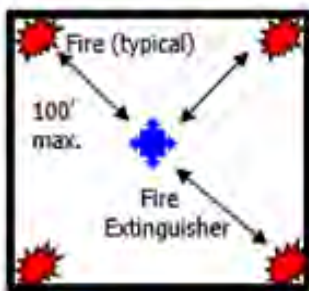


- P. Extinguishers having a gross weight not exceeding 40 pounds should be installed so that the top of the extinguisher is not more than five feet above the floor. Extinguishers having a gross weight greater than 40 pounds should be installed so the top of the extinguisher is not more than 3 1/2 feet above the floor.
- Q. The selection of fire extinguishers for a given situation will depend upon the characteristics of the fires anticipated, the construction of the individual property, acceptance by the owner, the vehicle or hazard to be protected, ambient-temperature conditions, and other factors.
- R. During the construction phase of the construction facilities, the support buildings, or permanent plant buildings or facilities, the construction area shall be provided with one portable hand fire extinguisher, multi-purpose, cartridge operated, with a minimum rating of 2-A (two pounds, type A) for each 3,000 square feet of area of building construction site with a maximum travel distance to an extinguisher of 100 feet.
- S. One or more fire extinguishers rated not less than 2-A shall be provided on each floor. It is usually the responsibility of the General Contractor to provide and maintain the proper quantity and type of fire extinguisher in the general areas. It is the responsibility of the Competent Person to check to see if the

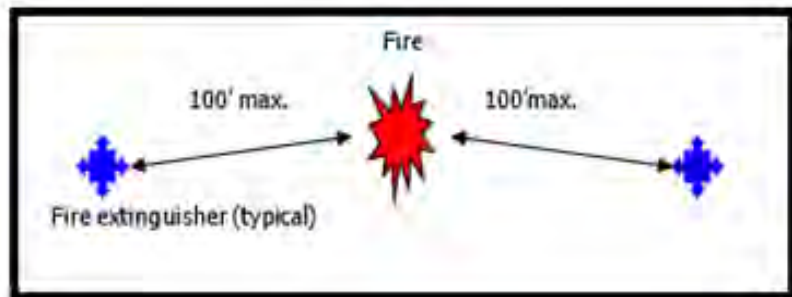
general work area is covered properly, report insufficient coverage to the General Contractor and provide the proper type, size and quantity of fire extinguishers for special conditions warranted by our work.

- T. Other areas such as remote fueling areas, electrical power distribution centers, engine sets and fuel-fired heaters may require additional extinguishers.
  - U. Access to all available firefighting equipment must be maintained at all times.
  - V. Firefighting equipment must be conspicuously located.
  - W. A 10-B rated fire extinguisher shall be provided within 50' when over five gallons of flammable or combustible liquids or five pounds of flammable gases are being used.
6. In the Event of a Fire
- A. Evacuate all personnel to a predetermined designated area.
  - B. Assign an Employee to contact the Supervisor and Safety Department.
  - C. Assess the type and magnitude of the fire.
  - D. **Use prudent judgment.**
    - I. Minor small controllable fires extinguish with appropriate type of fire extinguisher. Assess the damage and report to your supervisor.
    - II. Severe uncontrollable fires - evacuate area and call the local fire department, account for all Employees evacuate to the designated assembly point, assist the fire department if requested and report to your supervisor.
  - E. Verify area is safe then return employees to their work area and resume installations.
7. Ignition Hazards
- A. Operations which constitute a fire hazard need signs posted. The sign should read: **"NO SMOKING OR OPEN FLAME."**
  - B. Only low voltage or battery powered lighting is approved when temporary lighting is needed in close proximity and/or around flammable storage, handling and/or dispensing.
  - C. No temporary building used to store flammable materials shall be erected where it will block an exit or means to an exit and must be 20 feet clear of other buildings.
  - D. When storing flammables in a storeroom located within another building or structure, only non-combustible material or material with a 1-hour fire rating may be used for the construction of that storeroom.
  - E. Storage cabinets, storerooms and designated areas used for the storage of flammable substances must be located no less than 50 feet from any source of ignition.
  - F. In open yard storage areas, combustible materials are stacked with due regards to the stability of stacks and in no case higher than 20 feet.
  - G. Driveways between and around combustible materials storage stacks shall be at least 15 feet wide.
  - H. Portable fire extinguishers rated not less than 2-A must be placed so that maximum travel distance to the nearest unit will not exceed 100 feet. The layout of an area could require additional fire extinguishers, even though the total area does not exceed 3,000 feet (see examples below).

These boxes represent 3,000 square feet of building area (50' x 60') and (10' x 300')



100 feet maximum travel distance



100 feet maximum travel distance

8. Classes of Fires
- A. **Class "A"** fires are those that occur in ordinary materials such as wood, paper, rags, and rubbish. The quenching and cooling effects of water or fire extinguisher solutions containing large percentages of water are of first importance in extinguishing these fires.

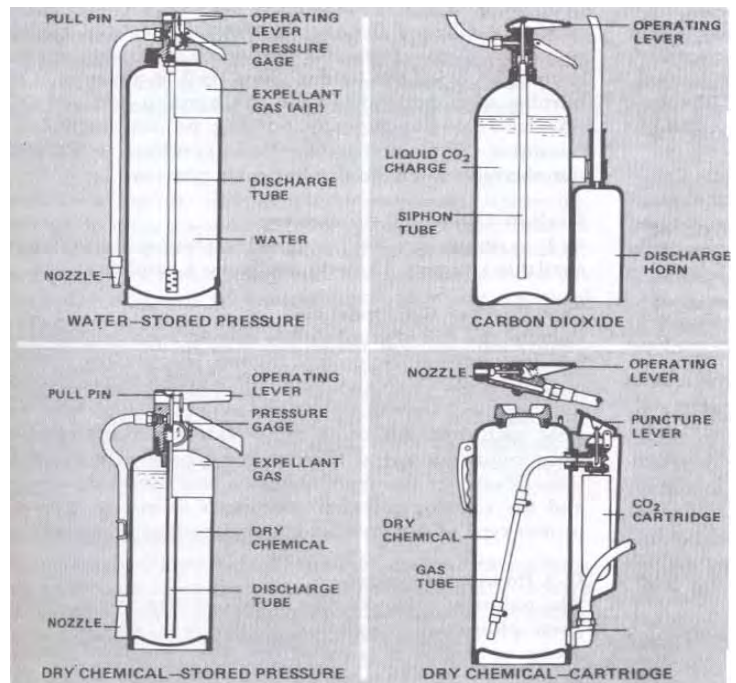


- B. **Class "B"** fires are those that occur in the vapor-air mixture over the surface of flammable liquids such as gasoline, oil, grease, paints and thinners. The limiting of air is of primary importance. Generally, regular dry chemical, multi-purpose dry chemical, carbon dioxide, and foam may be used depending on the circumstances of the fire. Solid streams of water are likely to spread the fire.
- C. **Class "C"** fires are those, which occur in or near electrical equipment where non-conducting extinguishing agents shall be used. Dry chemical, carbon dioxide, compressed gas, or vaporizing liquid may be used. Foam or a solid stream of water should not be used because both are good conductors and can expose the operator to a severe shock hazard.
- D. **Class "D"** fires are those that occur in combustible metals such as magnesium, titanium, zirconium, lithium and sodium. Specialized techniques, extinguishing agents, and extinguishing equipment are needed to control and extinguish fires of this type. Normal extinguishing agents generally should not be used as there is a danger in most cases of increasing intensity of the fire because of a chemical reaction between some extinguishing agents and the burning metal.

		Ordinary Combustibles	Wood, Paper, Cloth, Etc.
		Flammable Liquids	Grease, Oil, Paint, Solvents
		Live Electrical Equipment	Electrical Panel, Motor, Wiring, Etc.
		Combustible Metal	Magnesium, Aluminum, Etc.

8. Extinguisher Types

- A. For use on Class A fires
  - I. Water
  - II. Stored pressure, cartridge operated, water pump tank
  - III. Soda Acid
  - IV. Dry Chemical
  - V. Foam
- B. For use on Class A and B Fires
  - I. Foam
  - II. Dry chemical - sodium or potassium bicarbonate cartridge or stored pressure. (Will control small surface fires)
- C. For use on Class B and C Fires
  - I. Carbon dioxide (will control small Class A fire)
  - II. Dry Chemical
- D. For use on A, B and C Fires
  - I. Dry chemical - multi-purpose A B C cartridge or stored pressure
- E. For use on Class D fires
  - I. Special purpose Dry Powder.



9. Flammable Liquids (Flash Point 100°F or less)

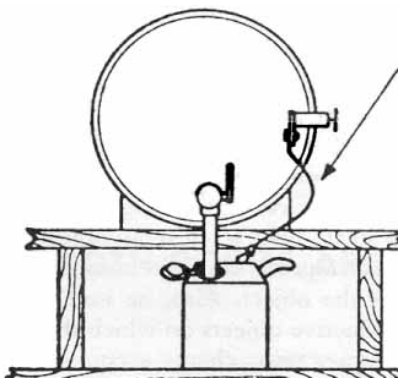
- A. Flammable liquids such as gasoline, benzene, naphtha, and lacquer thinner must not be used for cleaning purposes.
- B. Spills or overflow of flammable liquids should be avoided. However, in the event of spillage, immediate steps should be taken to clean up and minimize the danger of fire.
- C. When liquids such as condensates, gasoline, and some crude oils are drawn into open metal containers, the open container must be bonded by means of either threaded connections or a bonding wire to the vessel or piping in order to prevent any possible ignition source from generation of static electricity.
- D. With exceptions of gasoline and oil, the mixing of two or more flammable liquids is prohibited.
- E. When pumping highly flammable liquids from one container to another, metallic contact should always be maintained between the two containers or be bonded together.

10. Safe Handling of Flammable & Combustible Materials

- A. Never handle a flammable substance near a source of ignition or bring a source of ignition near a flammable substance.

- B. Safe transfers of flammable liquids are made in an open, well ventilated area where the vapors will be diluted and dissipated by large quantities of fresh air. Make sure you have a bond between containers to eliminate static electricity.
- C. Using funnels and spouted cans makes for a quick transfer and helps prevent dangerous spills.
- D. Flammable and combustible liquid spills should be cleaned up immediately.
- E. When refueling or lubricating machinery, be certain that it is shut down first. Pieces of machinery like exhaust pipes and bearings radiate heat, and electrical systems generate sparks that can ignite in an accidental spill.
- F. Be certain that an engine is supplied with the proper type of fuel and the fuel supply is shut off by a valve when the engine is not in use.
- G. Never use gasoline as a solvent - it produces dangerous amounts of vapor. Always use a high flashpoint solvent or thinner for cleaning off paint, grease, or oil around equipment.
- H. To eliminate the build-up of static electricity on fuel cans being transported, unload the fuel cans onto the ground first then pick up cans and dispense the fuel. This helps to discharge the possible build-up of static electricity on the cans and is less likely to draw a static arc (source of ignition) from the can to the fuel tank causing a possible fire.
- I. If fuel is dispensed from a fuel truck, the truck should be bonded to equipment being filled. If fuel is dispensed from a fixed fuel tank, the tank should be bonded to the fuel can before the fuel is dispensed (see below). The bonding between the tank and can will reduce the risk of igniting the fuel due to static electricity discharge which could be a source of ignition.

#### Typical Bonding Jumper between Fuel Tank and Fuel Can



**Bonding Jumper Connected to the fuel can then to the tank**

#### Proper Use of Fire Fighting Equipment

- J. Always use the handle to carry an extinguisher. Walk at a rapid pace do not run to a fire.
  - K. Proceed to the upwind side of a fire. Stay well clear of the flames and fumes. When you are approximately 10 feet upwind of the near edge, stop and ready your extinguisher for discharge.
  - L. Once your extinguisher is set for discharge, position yourself within eight feet of the near edge upwind of the fire. From this position the air currents will help carry the agent into the fire assuring maximum visibility and providing protection from the heat.
  - M. When discharging the extinguishing agent, aim your stream just short of the near edge at the base of the fire.
  - N. Apply the agent in a side-to-side sweeping action across the full width of the fire. Make sure each sweep of the extinguishing agent is slightly wider than the near or leading edge of fire.
  - O. Advance forward only as fast as the extinguishing action of your agent will permit. Do not outrun your protection. Do not raise your stream to chase the flame. Keep it down in front of the flame edge.
  - P. Stop short of the already extinguished fuel area. Do not become involved in the fire. Above all, maintain your side-to-side sweeping action until the fire is extinguished. Once the fire is out, stand by for a few minutes. Make sure there is no danger of a re-flash. Do not ever turn your back on an apparently extinguished fire.
  - Q. Once your fire extinguisher is out of agent you must evacuate the area and report to your supervisor. If the fire is not out when your extinguisher is empty, it is possible for the fire to re-spread around you and trap you.
12. Fire Emergency
- A. Wilkinson Electric does not expect you to fight fires.
  - B. Do not attempt to put out a fire larger than a small controlled fire (nothing larger than a backpack).
  - C. If you attempt to put out a fire, please alert those around you to assist in evacuation.

- D. Fire extinguishers are used by pulling the pin, aim the nozzle at the base of the fire – stand back approximately 6 feet away, squeeze the handle and use a sweeping motion, side to side until the fire is out.



13. Program Review at least once a year

#### **TRAINING**

1. Fire Prevention Training shall be provided to all employees as needed
2. All affected employees will be instructed in fire prevention methods.
3. Fire drills will be held as needed to familiarize employees with the emergency/fire response procedures for the work site as well as the location and operation of fire extinguishing equipment.
4. Fire safety is to be covered in the site safety meetings and specifically covered in the site safety meetings when the condition of the project offers a potential for fires.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

Not applicable at this time.

## Welding and Cutting Fire Safety Program

### PROGRAM STATEMENT

Specific training will be provided to all Employees using welding and/or cutting equipment to prevent injuries from fire, explosions, electric shock or harmful agents.

### DEFINITIONS

1. Fire Watch: Employee trained in fire extinguisher use, which will look for stray sparks and ignition of other fire hazards and keep unauthorized persons out of the hot work area.
2. Welder/operator: A person who has been properly instructed to operate welding/cutting equipment.

### RESPONSIBILITIES

1. Employee
  - A. Shall adhere to the program requirements
  - B. When helping welder, shall wear the equivalent PPE
2. Fire Watcher
  - A. Shall be trained in Fire Watch responsibilities
  - B. Shall adhere to program requirements
3. Welder/Operator
  - A. Shall ensure a work permit is acquired prior to starting work
  - B. Inspect equipment before each use
  - C. Maintain equipment in accordance with manufacturer

### PROGRAM REQUIREMENTS

1. Safe Work Practices
  - A. Before using, inspect cutting torches and hoses, arc welding equipment, cables, and electrode holders for leaks and defects.
    - I. Remove any defective equipment from service immediately, apply a red (danger do not use) tag, have the equipment repaired or replaced and inspect equipment before returning it to service.
    - II. Make sure grounding is adequate.
  - B. Obtain permit to conduct hot work in the work area from your Superintendent and comply with the requirements outlined. If established, we will use the hot work permit protocol procedures provided by the customer or owner.
  - C. A fire watch is required throughout the entire job. The fire watch will look for stray sparks and ignition or other fire hazards.
  - D. Make sure fire extinguishers are of the correct type and size and are nearby and fully functional.
  - E. Make sure insulating boots protect terminals where welding leads are connected to welding machine.
  - F. Provide screens, shields, or other safeguards when welding near other workers.
  - G. Dispose of electrode stubs in a fireproof container.
  - H. Keep cables and hoses out of vehicular and pedestrian traffic. It is recommended to string welding leads and hoses overhead.
  - I. Use extreme caution in cutting or repair welding of closed containers. Purge the container first with live steam or fill with water. Check internal conditions with an explosive vapor monitor before any cutting or welding is attempted.
  - J. When removing excess weld metal, faulty welds, or slag, safety goggles and a protective face shield must be used.
  - K. High quality welding helmets of the approved type will be worn. Soft hoods are prohibited.
    - I. The use of the proper shade of welding lens is required.
    - II. An adequate supply of cover lenses will be made available by the Supervisors.
    - III. Employees assisting welding operator will also wear protective lenses to avoid "welding flash" of the eyes.
    - IV. Shade 10 are required for welding and Shade 3 is required while using cutting torches.
  - J. Clothing must be free of oil and grease.
    - I. Woolen clothing is not as readily ignited as untreated cotton clothing and aids in protecting the welder from changes in temperature.
    - II. Pockets and cuffs catch sparks. Collars should be buttoned, and cuffs turned up inside pants. Pockets should be eliminated from fronts of vests, shirts and aprons, or have buttoned flaps.
    - III. Fire-resistant leggings, high boots or other leg protection should be worn for very heavy work
    - IV. Fire-resistant capes or shoulder covers shall be worn during overhead welding operations.



- K. Disposable butane cigarette lighters must not be on the operator or near the welding/cutting work. These lighters can explode if a welding/cutting spark were to breach the butane container and ignite the fuel.
  - L. Torches shall be lighted by friction lighters or other approved devices and not by matches or from hot work.
  - M. When electrode holders are to be left unattended, welding rods must be removed, and the holders so placed or protected that they cannot make electrical contact with Employees or conducting objects.
  - N. Hot electrode holders shall not be dipped in water. To do so may expose the arc welder or cutter to electric shock.
  - O. When the arc welder or cutter has occasion to leave his work or to stop work for any appreciable length of time, or when the arc welding or cutting equipment is to be moved, the power supply switch to the equipment shall be opened.
  - P. When it becomes necessary to connect or splice lengths of cable one to another, substantial insulated connectors of a capacity at least equivalent to that of the cable must be used. If connections are affected by means of cable lugs, they shall be securely fastened together to give good electrical contact and the exposed metal parts of the lugs shall be completely insulated.
  - Q. Cables in poor condition will not be used.
    - I. When cables become worn to the extent of exposing bare conductors, the cable must be removed from the work area, red (danger do not use) tagged and repaired.
    - II. To repair cables, the portion exposed must be covered with insulating material equal to the rest of the cable.
    - III. Following repairs, the cable is not to be returned to the work area without the Competent Person's authorization.
  - R. The first 10'-0" of cable from the electrode holder must be free of repairs due to damage.
2. Inspection and Storage
- A. All welding and cutting equipment must be kept clean, in good repair and inspected by the user prior to each use.
  - B. Any tools or equipment found to be defective must not be used. Defective equipment must be properly repaired or replaced.
  - C. Inspect hoses carefully once every week for leaks, worn places, and loose connections.
  - D. Boxes used for storage of hoses and torches must be well ventilated. Never place hoses and torches in tool boxes while they are still connected to cylinders or manifold.
  - E. Cylinder storage must be in definitely assigned locations, stored in a vertical (upright/valve end up) position, and positively secured from falling, being knocked over, or damaged by passing or falling objects.
  - F. Cylinders shall be kept away from radiators, stoves, furnaces, or other sources of heat.
  - G. Empty cylinders, cylinders not in use, or cylinders in storage shall have their valves closed and preventive measures taken to keep them from falling over.
  - H. Valve protection caps shall always be in place, hand tight, except when cylinders are in use or connected for use.
  - I. Oxygen and fuel cylinders (full or empty) in storage shall be separated by a minimum distance of 20 feet or by a 5' non-combustible fire wall with a rating of at least 1/2 hour.
  - J. Oxygen cylinders shall not be stored near highly combustible material, especially oil and grease, or any other substance likely to cause or accelerate fire.
  - K. Inside of buildings, cylinders shall be stored in well-protected, well ventilated, dry location, at least 20' from highly combustible materials such as oil or excelsior (wood shavings used for packing). No more than 2,000 cubic feet or 300 pounds of fuel gas may be stored inside a building.
  - L. Where cylinders are stored in the open, they should be protected from accumulations of ice and snow and from the direct rays of the sun, in localities where extreme temperatures prevail.
3. Welding and Cutting Procedures
- A. General Requirements
    - I. Employees must protect themselves from sparks, flying slag, and flame brilliance at all times.
    - II. Protective sleeves, aprons, and shoes should be worn to protect skin and clothing from sparks and slag. **KEEP ALL CLOTHING AND PROTECTIVE APPAREL ABSOLUTELY FREE OF OIL AND GREASE.**
    - III. Protective gloves must be worn by welders, torch operators and helpers exposed to hot metal or slag during oxy-fuel cutting, heating and welding operations.
    - IV. Division approved burning goggles with Shade 3 lenses will be worn to provide employee protection from injurious light radiation. A number 3 lens shade is considered adequate for routine torch cutting activities. Refer to the PPE section for more information.
    - V. Adjust clothing where necessary to keep out flying sparks and slag. Sparks may lodge in rolled-up sleeves, in pockets of clothing, or in cuffs of trousers. Keep sleeves and collars buttoned when



necessary. Low shoes with unprotected tops are not suitable for work where there is possibility of sparks or slag getting inside shoes.

#### 4. Use of Cylinders and Regulators

- A. Keep wrenches used to open valves of gas cylinders in place.
- B. Do not use a hammer or wrench to open oxygen cylinder valves.
- C. Close the valve of the gas cylinder and release all gas from the regulator before removing the regulator.
- D. Always close cylinder valves when work is finished, and always close valves of empty cylinders while in storage prior to return to the supplier.
- E. Do not use the top of any cylinder as a place for storing tools or clothing.
  - I. This might interfere with quick closing of the valve, and it might also damage the fusible safety plug.
  - II. Never let the recess tops become filled with water when using the cylinder.
- F. Keep all gas cylinders in their upright position and secured against falling at all times.
- G. Do not place cylinders below work where sparks or slag could fall on top of them or protect them from these hazards.
- H. Gas cylinders must not be hoisted using a sling or electric magnet, or lifted by the valve protection cap.
- I. Do not remove cylinders by their valves or use them for any purpose for which they were not designed.
- J. Never use cylinders as rollers or supports.
- K. Do not drop cylinders or handle them roughly.
- L. Never allow cylinders to come in contact with live wires, third rails, or ground wires from electrical equipment.
- M. Regulators must be removed, and valve protection caps put in place hand tight when cylinders are not in use or when they are being transported.
- N. Keep oxygen cylinders and fittings away from oil or grease.
  - I. Oil or grease may ignite violently in presence of oxygen under pressure.
  - II. Oily or greasy substances must be kept away from cylinders, cylinder valves, couplings, regulators, hose, and apparatus. Do not handle oxygen cylinders or apparatus with oily hands or gloves.
  - III. Oxygen cylinders should not be handled on the same platform with oil or be placed in a position where oil or grease from overhead cranes or belts are likely to fall upon them.
- O. A jet of oxygen should never strike an oily surface, greasy clothes, or enter a fuel oil or storage tank that has contained flammable substances.
- P. When a pressure-reducing regulator is attached, open an oxygen cylinder valve slightly at first to dislodge any trash that may be in the valve. Then attach gauges and open valve slowly.
  - I. If the high pressure is suddenly released, it is liable to damage the regulator and its pressure gauges.
  - II. Stand to one side of the regulator front (gauge face) when opening the cylinder valve.
  - III. When the oxygen cylinder is in use, the valve should be opened fully.
- Q. Never tamper with or attempt to repair oxygen cylinder valves. If trouble is experienced, notify the supplier.
- R. Serious injury may easily result if oxygen is used as substitute for compressed air.
- S. NEVER use oxygen:
  - I. In pneumatic tools.
  - II. In oil pre-heating burners.
  - III. To start internal combustion engines.
  - IV. To blow out pipelines.
  - V. To dust off clothing or work area.
  - VI. To create pressure.
  - VII. For ventilation.
  - VIII. To supply breathing air equipment.
- T. Always stand acetylene cylinders with valve end up. Acetylene cylinders should not be allowed to lie on their sides while being used or when in storage.
- U. Never tamper with fusible plugs.
  - I. The fusible safety plugs, with which all acetylene cylinders are provided, act as safety releases when the cylinder is exposed to excessive temperatures.
  - II. They melt at about the temperature of boiling water and release acetylene from the cylinder.
- V. Always use special T-wrench or key for opening or closing the cylinder valve. Open fuel gases no more than one and on-half turns and leave the T-wrench or key in position ready for immediate use so that the acetylene can be quickly tuned off in case of emergency.

#### 5. Torches and Hoses

- A. Torches must be lit with a friction lighter or other approved device and not by matches or from hot work.

- B. Flashback arrester must be connected between both oxygen and fuel hose connections at the torch. They should also be attached to the outlet of both regulators.
  - C. Use only hoses and connections made especially for oxy-acetylene welding and cutting.
  - D. Examine hoses carefully once every week for leaks, worn places, and loose connections.
  - E. Leaks in the hose at the nipple connection must be repaired at once by cutting off the hose a few inches from the end and remaking the connection.
  - F. Leaks at other locations should be repaired by cutting off the bad section and inserting a hose coupling as a splice.
  - G. Never repair a hose with tape.
  - H. When hoses are taped together for convenience and to prevent tangling, not more than four out of 12 inches shall be covered by tape.
  - I. Do not use white lead, oil, grease, or other pipe fitting compounds for making joints.
  - J. Should a flashback occur and burn the hose, discard that length of hose.
  - K. Blow out new hoses with oxygen before using. When acetylene hoses have been cleared by oxygen, blow through it from the mouth before attaching it to the acetylene regulator.  
**Note: Do not blow out hoses with acetylene.**
  - L. Always protect hoses from damage or interference.
    - I. Protect hoses from being trampled on or run over.
    - II. Avoid tangles and kinks, and place hoses so they will not be tripped over.
    - III. Connections might be pulled off or the cylinders and equipment might be pulled over by a sudden strong tug on the hose.
    - IV. Do not allow hoses to come in contact with oil or grease.
    - V. These deteriorate the rubber and constitute a hazard with oxygen.
    - VI. Protect hoses from flying sparks, hot slag, or other hot objects and open flames.
6. Precautions for Welders
- A. Inspect all tools and equipment prior to their use. Worn or damaged hoses, welding leads, and other equipment with defects affecting safe operation must be repaired prior to use or discarded.
  - B. Each welder or cutter should have at least one 10 pounds, all purpose, dry powder fire extinguisher at the spot where welding or cutting is being performed.
  - C. Do not weld, cut or grind drums, containers, or hollow structures which have contained toxic or flammable substance until they have been thoroughly cleaned or purged and tested with a flammable gas meter.
  - D. Employees must wear a NIOSH approved air purifying respirator to protect against metal fumes when welding, cutting, or grinding the following:
    - I. Zinc (galvanized) metal.
    - II. Metal coated with lead or lead base paint.
    - III. Metal containing mercury or cadmium.
    - IV. Hard facing with manganese.
  - E. Do not stand in water when using an arc-welder. As necessary, stand on a dry platform made of wood or some other non-conductive material.
  - F. Do not dip electrode holders in water to cool them.
  - G. Keep your body insulated from the work and the electrode holder during welding operations.
  - H. Wear heavy clothing and the proper goggles or a welding hood with a filter lens and basic eye protection to protect against flash burn and flying objects.
7. Protective Shade
- A. As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum.
  - B. In oxy-fuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.
  - C. These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the work-piece.
  - D. Always wear face shield with basic eye protection or goggles when chipping or grinding.
  - E. Welder's helpers must wear filter lenses of the same grade as the welder.
  - F. Welders must wear safety glasses with side shields under their welding hood.
  - G. Soft hoods are prohibited.

**FILTER LENSES FOR PROTECTION AGAINST LIGHT RADIATION: 29 CRF 1910.133**

<b>Operation</b>	<b>Electrode Size 1/32 in.</b>	<b>Arc Current</b>	<b>Min Protective Shade</b>
Shielded metal arc welding	Less than 3	Less than 60	7
	3-5	60-160	8
	5-8	160-250	10
	More than 8	250-550	11
Gas metal arc welding and flux cored arc welding		Less than 60	7
		60-160	10
		160-250	10
Gas tungsten arc welding		250-550	10
		Less than 50	8
		50-150	8
Air Carbon		150-500	10
	Light	Less than 500	10
	Heavy	500-1000	11
Plasma arc cutting	Light	Less than 300	8
	Medium	300-400	9
	Heavy	400-800	10
Torch brazing			3
Torch soldering			
Carbon arc welding			14

<b>Operations Plate Thickness</b>	<b>Inches Plate Thickness</b>	<b>mm Minimum</b>	<b>*Protective Shade</b>
<b>Gas welding:</b> Light	Under 1/8	Under 3.2	4
	Medium	3.2 to 12.7	5
	Heavy Over	12.7 Over	6
<b>Oxygen cutting:</b> Light	Under 1	Under 25	3
	Medium	25-150	4
	Heavy	Over 150	5

**\*Minimum Protective Shade** is the recommended shade. Always use the darkest shade which still allows you to see the weld zone.

8. Precautions for Cadweld®
  - A. Make sure the area around and below the Cadwell® mold is free from combustible materials before ignition.
  - B. A fire extinguisher of the proper rating must be on hand.
  - C. Follow the Hot Work procedure.
  - D. A full-face shield and basic eye protection (safety glasses), as well as leather work gloves, must be worn when lighting the Cadwell® mold.
  - E. Make sure the Cadwell® molds and powder are stored in a dry box. A 100-watt lamp should be adequate for this use.
  - F. Handles must be adjusted so that the pressure is sufficient to seal the two halves together without molten metal leaking out.
  - G. Use a small propane torch to dry and then heat the mold. When a weld is lit in a wet or damp mold the super-fast heating of the mold converts the water in the mold into steam. When the steam tries to escape the mold it sometimes explodes the mold, sending very hot fragments of the mold into the surrounding air. Be sure the mold is dry before using it and be sure the weld shots are dry to allow proper melting temperatures to be reached for quality welds.
  - H. Items to be welded must be brushed to remove oxidation, dirt and grease.
  - I. Use a Cadwell® striker to ignite the mold. Do not use a butane cigarette lighter.
  - J. Following ignition, wait two minutes (depending on mold size) before removing the mold.
9. The Use of a Fire Watch
  - A. Construction sites will require a "Fire Watch" be assigned to the operation.
  - B. The welding shop set up for the purpose will not require a "Fire Watch" if all the following are met:
    - I. A minimum 10-pound all-purpose fire extinguisher is located in close vicinity to the work and in clear sight.
    - II. Operator is wearing proper clothing as described above.
    - III. Operator is wearing proper face shield (welding hood) with proper protective shades and filter lenses.

- IV. Torch bottles are properly stored and maintained.
  - V. Ventilation is appropriate, especially if a gasoline powered welder is in use.
  - VI. The work area is clean of debris, combustible products and is designed for welding and cutting use.
  - VII. The area is restricted from unauthorized entrance.
- C. When required (is always required on a construction site) the "Fire Watch" will:
- I. Be within reasonable distance of the welding and cutting operation. Reasonable distance is described as close enough to follow the ambers and hot slag from the welding/cutting operation to be sure they do not create a fire hazard.
  - II. Wear proper clothing as described above and as required for the operator.
  - III. Wear proper face shield (welding hood) with proper protective shades and filter lenses as required for the operator.
  - IV. Prevent unauthorized persons from entering the work area.
  - V. Maintain audible communication with the welder.
  - VI. Immediately stop work to extinguish ambers, hot slag or small fires.
  - VII. Remain at the work area a minimum of 30 minutes after the welding/cutting is complete to insure there are no hot ambers or slag capable of igniting a fire. Time may vary according to ability to insure no fires can ignite.
10. Welding and/or Cutting Hot Work Permit  
When welding and/or cutting:
- A. Complete the "Hot Work Permit". Utilize the customers permit protocol if established.
  - B. Post permit in area of work.
  - C. Provide Customer with copy of permit.
  - D. Complete work.
  - E. Broom sweep area when fully complete with work.
  - F. Send permit to Project Manager for filing in project files.
11. Program Review
- A. Safety department shall review program at least once yearly

**TRAINING**

- 1. Affected Employees
  - A. Shall be trained in welding and cutting fire safety work prior to being assigned to that duty.
  - B. Retraining is required when a lack of proficiency is observed unless another frequency is dictated by specific Division policies.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 17.2.1 Welding & Cutting Hot Work Permit
- 17.2.2 Light Radiation Protection Matrix

**FILTER LENSES FOR PROTECTION AGAINST LIGHT RADIATION: 29 CRF 1910.133**

<b>Operation</b>	<b>Electrode Size 1/32 in.</b>	<b>Arc Current</b>	<b>Min Protective Shade</b>
Shielded metal arc welding	Less than 3	Less than 60	7
	3-5	60-160	8
	5-8	160-250	10
	More than 8	250-550	11
Gas metal arc welding and flux cored arc welding		Less than 60	7
		60-160	10
		160-250	10
Gas tungsten arc welding		250-550	10
		Less than 50	8
		50-150	8
Air Carbon		150-500	10
	Light	Less than 500	10
	Heavy	500-1000	11
Plasma arc cutting	Light	Less than 300	8
	Medium	300-400	9
	Heavy	400-800	10
Torch brazing			3
Torch soldering			
Carbon arc welding			14

<b>Operations Plate Thickness</b>	<b>Inches Plate Thickness</b>	<b>mm Minimum</b>	<b>*Protective Shade</b>
<b>Gas welding:</b> Light	Under 1/8	Under 3.2	4
	Medium	1/8 to 1/2	3.2 to 12.7
	Heavy Over	1/2 Over	12.7 Over
<b>Oxygen cutting:</b> Light	Under 1	Under 25	3
	Medium	1-6	25-150
	Heavy	Over 6	Over 150

\***Minimum Protective Shade** is the recommended shade. Always use the darkest shade which still allows you to see the weld zone.



## Welding and Cutting Permit

**Division Name:** \_\_\_\_\_ **Permit Number:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_  
**Project Name:** \_\_\_\_\_ **Project Number:** \_\_\_\_\_  
**Issue Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_ a.m. p.m.

Location of Work	Building	Is This Required	Initials
	Room Number/Area		
Work to be Done	Welding	Amount	
	Torch		
	Cutting/Burning		
	Open flames		
	Internal Combustion Equipment Type		
	Other Type		
General Safety Precautions	Fire Extinguisher in work area?		
	Fire Watch Assigned?		
	Area Barricaded/Secured?		
	Walls Protected?		
	Floors Protected?		

Permit # \_\_\_\_\_ Page 2

General Safety Precautions	Flammable/ Combustible Materials Removed?				
	Fire Alarm Deactivated? Who Did You Contact?				
	Other				
Specific Precautions	Protective Shielding				
	LEL Meter Test	Results	%		
	Special Precautions List:				
After Work is Complete	Operator Stopped Work at:				Initials
				a.m./p.m.	
	Fire Watch Completed Watch at:				Initials
			a.m./p.m.		
Security Notified to Re-set Fire Alarm:				Initials	
			a.m./p.m.		
Authorization to Proceed	<b>Requested By:</b>			<b>Phone</b>	<b>Fax</b>
	Division:				
	Safety Representative:				
	Department Representative:				
	Issued By:				

**THIS PERMIT MUST BE AVAILABLE ON THE JOBSITE AT ALL TIMES**



## OSHA Regulatory Inspections Program

### PROGRAM STATEMENT

The Occupational Safety and Health Act allow OSHA to enter any workplace for the purpose of investigating to determining if violations to the OSHA standards exist. However, OSHA may only do so with the consent of the employer or by authority of a search warrant issued by a US District Judge or Magistrate. Inspections by OSHA Compliance Officers may be initiated for many reasons including Employee complaints, serious or fatal accidents, special emphasis programs, or planned audits.

Wilkinson Electric will comply with any OSHA inspection request. The regulatory inspection protocol contained herein applies specifically to OSHA inspections. If OSHA visits a project, contact the Wilkinson Electric Senior VP, Safety immediately.

### DEFINITIONS

Not Applicable at this time

### RESPONSIBILITIES

1. Employee
  - A. Notify Supervisor and Safety of OSHA's presence
  - B. Respectfully participate during the inspection as requested by the inspector.
2. Supervisor and/or Safety
  - A. Notify Safety and Subcontractors of OSHA's presence
  - B. Take notes during inspection and write down anything the inspector says or asks.
  - C. Take duplicate pictures – Stand in the spot the inspector was standing, position camera and body to physically duplicate the picture the inspector took.
  - D. Complete form 18.1.1 if the Safety Management is unable to attend.

### PROGRAM REQUIREMENTS

1. The following procedure must be adhered to in the event of an impending OSHA inspection to an Wilkinson Electric location, jobsite or project.
  - A. When the Compliance Officer arrives at the project office or location to be inspected, he/she should be taken immediately to the General Contractor or the General Contractor's Site Safety Representative.
  - B. If we are the only contractor on the site, the Compliance Officer is to be taken to the Supervisor and/or Project Manager (if the Safety Department is not available) and they will represent the construction site. If there is a General Contractor on site, they will represent the construction site. We would be involved only as needed by the General Contractor. When the General Contractor involves us, the documentation would be identical as if we were representing the construction site.
  - C. When Wilkinson Electric represents the construction site, the Supervisor will inquire of the Compliance Officer as to the nature of his/her visit. The Compliance Officer is required to state the purpose of his/her visit (i.e., general compliance, special emphasis, Employee complaint, etc.). Upon determining the purpose of the visit, the Supervisor will notify all sub-subcontractors of the inspection and opening conference.
  - D. Supervisor is to immediately notify the Safety Department as soon as he/she is aware the Compliance Officer is on the site and accompany the Safety Department during the inspection.
  - E. If it is geographically impossible for the Safety Department to attend (further than 1 hour away), the Supervisor will attend the opening conference and adheres to the following guidelines:
    - I. If Safety Department Personnel is in route, ask for the compliance officer to delay the inspection until the he arrives. Most compliance officers will accommodate the request and wait 1 hour.
    - II. Request to see the formal credentials of the Compliance Officer and obtain the name and identification number of the Compliance Officer.
    - III. Contact the Safety Department immediately if not present and converse during the inspection.
    - IV. Document your conversation with the Compliance Officer. Note all conversations with the Compliance Officer and any actions taken.
    - V. Show the Compliance Officer professional courtesy and respect at all times. You can be firm without being discourteous or rude.
    - VI. The Supervisor will serve as the primary contact with the Compliance Officer for Wilkinson Electric, throughout the inspection process and must accompany the Compliance Officer at all times
  - F. During the course of the inspection, the Compliance Officer may request some written safety programs, procedures and documentations. Note all documents the Compliance Officer requests. Provide the Safety Department a list of all programs, procedures and documentation requested and/or reviewed by the Compliance Officer.

- G. It is usual practice for the Compliance Officer to take photographs, or ask permission to do so, of various conditions found on the project. **Take the same pictures the Compliance Officer takes.** Take pictures from the same and then from different angles.
- H. In some cases, the Compliance Officer will want to interview some of the employees privately and are allowed to do so by law. Employees may request a representative to be present.
- I. In the event an in-depth OSHA inspection occurs, where more than one (1) Compliance Officer is conducting the inspection, an adequate number of Division Support Personnel should be utilized to assist in the inspection.
- J. In all phases of the inspection, it is imperative that extensive notes be kept by the Supervisor. A description of alleged violations, Employee names, employee numbers and addresses of Employees who were exposed to the alleged violations and equipment used or not used by the Compliance Officer (i.e. tape measure, industrial hygiene instrumentation, etc.).
- K. At the completion of the inspection the Compliance Officer will conduct a closing conference. During the closing conference, extensive notes should be taken since the Compliance Officer will review the results of the inspection, violations identified and any expected citations to be issued.
- L. All notes and photos taken are to be sent to the Safety Department immediately following the inspection

**DO NOT ADMIT TO ANY ALLEGED VIOLATION AT ANY TIME DURING THE INSPECTION OR CLOSING CONFERENCE.**

- M. At the conclusion of the closing conference, the Safety Manager / Supervisor must complete the Wilkinson Electric 18.2 OSHA Inspection Report form. The report, all notes and the following pertinent information shall be sent immediately to the Wilkinson Electric Safety Department:
  - I. Name and location of the facility of jobsite inspected.
  - II. Date and time of inspection.
  - III. Name and identification number of the Compliance Officer.
  - IV. Reason for inspection.
  - V. Names of opening conference participants.
  - VI. Description of Safety Programs and material presented to the Compliance Officer.
  - VII. Project safety and security restrictions such as photographs.
  - VIII. Names of inspection party participants listing job functions or title.
  - IX. A general description of the area or items inspected and findings.
  - X. Names of Employees or witnesses interviewed by the Compliance Officer.
  - XI. Description of photographs taken.
  - XII. Industrial hygiene measurements taken such as air sampling for toxic substances and preliminary results if available.
  - XIII. Names of closing conference participants.
  - XIV. Compliance Officer's remarks and comments during the closing conference.
  - XV. Citations alleged and proposed abatement dates.
  - XVI. Action taken to correct alleged violation.
  - XVII. Any additional information pertinent to the inspection.
  - XVIII. Names, addresses and telephone numbers of all Employees with knowledge of anything the Compliance Officer looked at during the inspection.

2. Types and Reasons for an OSHA Inspection:

- A. Imminent Danger – Any condition where there is reasonable certainty a danger exists that can be expected to cause danger or serious physical harm immediately or before the danger can be eliminated through normal enforcement procedures. This is often referred to as a Drive-By inspection. Any project with scaffolding, cranes or work on roofs or from elevations has a greater chance of encountering this type of inspection.
- B. Catastrophic or Fatal Accidents – Investigation of fatalities and accidents resulting in a death or hospitalization of one or more employees to determine the cause and whether any existing OSHA standard violations were violated.
- C. Complaints and Referrals – Formal employee complaints of unsafe or unhealthy working conditions. Each employee has the right to request an OSHA inspection when the employee believes he or she is in imminent danger from a hazard or when he or she thinks there is a violation of an OSHA standard that threatens physical harm.
- D. Programmed Inspection – Inspections selected that are high hazard industries (which includes construction), workplaces, occupations, or health substance or other industries identified in OSHA's current inspection process. This inspection is the most common type and results from a random selection from the Dodge Report data base.

- E. Focused Inspection – The goal of focused inspections is to reduce injuries, illnesses, and fatalities by concentrating OSHA’s enforcement on those projects that do not have effective safety & health programs/plans and limiting OSHA’s time spent on projects with effective programs/plans. This type of inspection is more common in residential construction.
  - I. The 4 areas focused on are usually
    - 1) Falls, e.g. floors, platforms, roofs;
    - 2) Struck By e.g. falling objects, vehicles;
    - 3) Caught In/Between e.g. cave ins, unguarded machines, equipment and
    - 4) Electrical e.g. overhead power lines, power tools & cords, outlets and temporary wiring.
- F. Follow Up – Occurs after a citation has been issued to determine if the employer has abated or corrected previously cited violations. Failure to do so results in daily penalties until abatement or correction has been completed

### 3. Post Inspection Review

Immediately following an OSHA inspection, an OSHA Inspection Review Call is required, and the OSHA Inspection Report form will be submitted for review along with all information available from the inspection. The Safety Department will schedule a call with the Wilkinson Electric Senior VP, Safety, Wilkinson Electric Division President and the Division General Manager to review the results of the investigation. See Wilkinson Electric Program 18.2 OSHA Inspection Review for the details and procedures of this call.

### 4. Informal and Formal Conferences

All Informal and formal conference requests for any citation that is Serious or greater will be made by the Wilkinson Electric SRVP, Safety. The Wilkinson Electric Senior VP, Safety will attend all informal and formal conferences which involve a citation with a Serious or greater classification. Concerning any citation with a classification of Serious or greater, only the Wilkinson Electric Senior VP, Safety or the Wilkinson Electric Division President has authorization to negotiate and sign a settlement agreement with OSHA.

## **TRAINING**

1. Shall occur as needed.

## **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

## **FORMS**

- 18.1.1 OSHA Inspection Report



## OSHA Inspection Report Form

All OSHA Inspections must be reported on this form.

If additional space is required, please attach a separate sheet.

***Employees are reminded to be courteous and polite to OSHA personnel.***

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

Employee Name: \_\_\_\_\_ Inspection Date: \_\_\_\_\_

1. Opening Conference Date: \_\_\_\_\_ Opening Conference Time: \_\_\_\_\_ am/pm

2. Duration of Field Inspection: \_\_\_\_\_ **H** \_\_\_\_\_ **M**

3. List OSHA Inspectors:

\_\_\_\_\_  
OSHA Inspector Name

\_\_\_\_\_  
OSHA Inspector Title

\_\_\_\_\_  
OSHA Inspector Name

\_\_\_\_\_  
OSHA Inspector Title

4. Verified OSHA Inspector's credentials? **Yes** **No**

5. Type, Scope & Reason for Inspection

<input type="checkbox"/> <b>Programmed</b>	<b>Explanation:</b>
<input type="checkbox"/> Formal <input type="checkbox"/> Informal	
<input type="checkbox"/> <b>Un-Programmed</b>	
<input type="checkbox"/> Formal <input type="checkbox"/> Informal	
<input type="checkbox"/> Result of Complaint    Date:    /    /	
<input type="checkbox"/> Result of Death    Date:    /    /	
<input type="checkbox"/> Serious Injury    Date:    /    /	
<input type="checkbox"/> Hospitalization	
<input type="checkbox"/> "Roll by" Inspection	

6. Was the company aware of the complaint/injury/accident prior to inspection?     Yes     No

7. Did the scope of the inspection exceed that of the complaint/injury/accident?     Yes     No

If yes, explain: \_\_\_\_\_  
\_\_\_\_\_



## OSHA Inspection Review Program

### PROGRAM STATEMENT

This program establishes protocol and procedures to review all OSHA inspections to discuss the results, findings, corrective or further actions if needed.

### PROGRAM REQUIREMENTS

1. Within 24 hours after an OSHA inspection has occurred the Division Safety Manager will forward to the VP, Safety the following:
  - A. Completed copy of the OSHA Inspection Report (18.1.1)
  - B. An electronic copy of all pictures taken
  - C. All written statements from witnesses or those interviewed by OSHA
  - D. Copy of previous 3 months of this project's Project Safety Inspection Checklist
  - E. Copy of Daily Pre-Task Huddle
  - F. Any pertinent documents, evidence or information
2. Within 48 hours after receipt of the OSHA Inspection form, the Senior VP, Safety will schedule a conference call with the participants listed below to review the findings of the inspection and all information submitted by the Safety Department
3. Participants shall review submitted items and details.
4. Any corrective or abatement actions taken are discussed, if a violation was identified
5. Any exposure identified resulting in a violation is discussed with the participants as well as any disciplinary actions.
6. Notice to appeal citations and prepare defense, if any violations were identified and the participants feel they are unwarranted and to start preparing a defense
7. Participation
  - A. Wilkinson Electric Senior VP, Safety,
  - B. Division President,
  - C. Division General Manager,
  - D. Division Safety Manager

### TRAINING

1. Shall occur when assigned the responsibility or task





## Confined Space Entry Program

### PROGRAM STATEMENT

This section has been developed to establish minimum requirements and procedures for the safety and health of employees who work in or in connection with confined spaces. This policy does not apply to work regulated by 1926 Subpart P Excavations. Every employee shall be properly trained to recognize a confined space hazard. Specific employees who will become the Competent Person shall be properly trained to transform a confined space into a safe work environment. Specific employees who will become the entrant will be properly trained to enter a confined space once it is made safe.

### DEFINITIONS

1. Attendant: Means an individual stationed outside one or more permit spaces who assesses the status of authorized entrants. Attendant duties are outlined in this policy.
2. Authorized Entrant ("Entrant"): Means an employee who is authorized by the entry supervisor to enter a permit space.
3. Competent Person: Means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazards.
4. Entry Supervisor: Means the qualified person (such as the employer, Lead or Foreman) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry.  
*Note: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this standard for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.*
5. Acceptable Entry Conditions: Means the conditions that must exist in a permit required confined space, before an employee may enter that space, to ensure that employees can safely enter into, and safely work within, the space.
6. Barrier: means a physical obstruction that blocks or limits access.
7. Confined Space means a space that:
  - I. Is large enough and so configured that an employee can bodily enter it;
  - II. Has limited or restricted means for entry and exit; and
  - III. Is not designed for continuous employee occupancy.
8. Control: means the action taken to reduce the level of any hazard inside a confined space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.
9. Controlling Contractor: is the employer that has overall responsibility for construction at the worksite.  
*Note: If the controlling contractor owns or manages the property, then it is both a controlling employer and a host employer.*
10. Early-Warning System: Means the method used to alert authorized entrants and attendants that an engulfment hazard may be developing. Examples of early-warning systems include but are not limited to: alarms activated by remote sensors; and lookouts with equipment for immediately communicating with the authorized entrants and attendants.
11. Emergency: Means any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the permit space that could endanger entrants.
12. Engulfment: Means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, crushing, or suffocation.
13. Entry: Means the action by which any part of a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space, whether or not such action is intentional, or any work activities are actually performed in the space.
14. Entry Employer: Means any employer who decides that an employee it directs will enter a permit space.

**Note:** An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a permit space, and OSHA will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

15. Entry permit (permit): Means the written or printed document that is provided by the employer who designated the space a permit space to allow and control entry into a permit space and that contains the information specified in §1926.1206 of this standard.
16. Entry Rescue: Occurs when a rescue service enters a permit space to rescue one or more employee.  
**Note:** Typically, this is the local fire department. Sites relying on local emergency services for emergency services must make arrangements for responders to give Wilkinson Electric Supervision or designee advance notice if they will be unable to respond during the time period of permit required confined space entry (i.e., they are dispatch to another emergency, etc.). During periods when rescue services will be suspended, no Wilkinson Electric Employee, will be permitted to enter a permit required confined space.
17. Hazard: means a physical hazard or hazardous atmosphere.
18. Hazardous Atmosphere: Means an atmosphere that may be or is injurious to occupants by reason of oxygen deficiency or enrichment, flammability, combustibility, or toxicity.
19. Host Employer: Means the employer that owns or manages the property where the construction work is taking place.
20. Hot Work: Means operations capable of providing a source of ignition (for example, riveting, welding, cutting, burning, and heating).
21. Immediately Dangerous to Life or Health (IDLH): Means any condition that would interfere with an individual's ability to escape unaided from a permit space and that poses a threat to life or that would cause irreversible adverse health effects.  
**Note:** Some materials—hydrogen fluoride gas and cadmium vapor, for example—may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.
22. Inerting: Means displacing the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.
23. Isolate or Isolation: Means the process by which employees in a confined space are completely protected against the release of energy and material into the space, and contact with a physical hazard, by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; blocking or disconnecting all mechanical linkages; or placement of barriers to eliminate the potential for employee contact with a physical hazard.
24. Lockout / Tagout: Means the placement of a lockout device and tag on an energy isolating device in accordance to the Wilkinson Electric Lockout Tagout policy set forth in Section 5.2 of the Wilkinson Electric Safety Manual.
25. Lower Flammable Limit (LFL) or Lower Explosive Limits (LEL): Means the minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.
26. Limited or Restricted Means of Entry or Exit: Means a condition that has a potential to impede an employee's movement into or out of a confined space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces and ladders.
27. Monitor or Monitoring: Means the process used to identify and evaluate the hazards after an authorized entrant enters the space. This is a process of checking for changes that is performed in a periodic or continuous manner after the completion of the initial testing or evaluation of that space.
28. Non-Entry Rescue: Occurs when a rescue service, usually the attendant, retrieves employees in a permit space without entering the permit space.
29. Non-Permit Required Confined Space (NPRCS): Means a confined space that meets the definition of a confined space but does not meet the requirements for a permit-required confined space, as defined in this subpart.
30. Oxygen Deficient Atmosphere: Means an atmosphere containing less than 19.5 percent oxygen by volume.
31. Oxygen Enriched Atmosphere: Means an atmosphere containing more than 23.5 percent oxygen by volume.

32. Permit-Required Confined Space (Permit Space): Means a confined space that has one or more of the following characteristics:
- I. Contains or has a potential to contain a hazardous atmosphere;
  - II. Contains a material that has the potential for engulfing an entrant;
  - III. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
  - IV. Contains any other recognized serious safety or health hazard.
33. Physical Hazard: Means an existing or potential hazard that can cause death or serious physical damage. Examples include, but are not limited to: explosives; mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment; noise; and inwardly converging surfaces. Physical hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).
34. Prohibited Condition: Means any condition in a permit space that is not allowed by the permit during the period when entry is authorized. A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee.
35. Qualified Person: Means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work or the project.
36. Rescue: Means retrieving, and providing medical assistance to, one or more employees who are in a permit space.
37. Rescue Service: Means the personnel designated to rescue employees from permit spaces.
38. Retrieval System: Means the equipment (including a retrieval line, chest or full body harness, wristlets or anklets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.
39. Test or Testing: Means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.  
**Note:** *Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.*
40. Ventilate or Ventilation: Means controlling a hazardous atmosphere using continuous forced-air mechanical systems.

## RESPONSIBILITIES

1. Employee
  - A. Shall adhere to the PRCS program and follow all regulatory requirements outlined during training
  - B. Shall use Stop Work Authority when a task does not match the "Work Plan"
2. Supervisor
  - A. Shall discuss all confined space tasks with the Safety Department at a minimum of 3 days prior to starting confined space work.
  - B. Communicate with all parties required by the Project Owner or GC, Subcontractors and the Wilkinson Electric Safety Department details requiring the use of confined space
  - C. Shall appoint a competent person to perform the required "competent person" duties
  - D. Shall ensure all affected employees are trained prior to starting any Confined Space task
3. Competent Person
  - A. Identifies all confined spaces in which one or more of the employees it directs may work in.
  - B. Conducts atmospheric testing is conducted as required.
  - C. Ensures potential hazards are identified, eliminated or controlled.
    - I. Hazard Assessment (i.e., JHA, PTP, Work Plan, etc....)
  - D. Determines the proper rescue process as required.
  - E. Ensures involved personnel are trained.
    - I. Only Wilkinson Electric employees that have been trained to work in a confined space may be assigned work activities that would require entry into a confined space.
    - II. All confined space training must be delivered in a language and vocabulary that the worker understands.
  - F. Ensure continuous atmospheric monitoring is required regardless of the confined space designation.
  - G. When required erect non-entry rescue equipment.

- H. SDS (formerly MSDS) are readily available as needed.
- I. Electrical power must have GFCI protection.
- J. Required PPE is available and properly used.
- K. When required, non-entry rescue equipment erected.

#### 4. Entry Supervisor

The Entry Supervisor will have successfully completed the Permit-Required Confined Space Entry Supervisor training. The Entry Supervisor is responsible for:

- A. Authorizing entry and overseeing entry operations.
- B. Entry Supervisor may also serve as "attendant" or as an "authorized entrant," as long as they have been trained and equipped for each of those roles, as needed.
- C. Assigning entry attendant to monitor the entrants from outside the permit required confined space:
  - I. Entry attendant must have completed Entry Attendant training.
  - II. As long as they are assigned as an entry attendant they can have no other duties.
- D. Make sure all entrants have completed the permit required space awareness training and understand their responsibilities.
- E. Knowing the hazards that may be faced during entry.
- F. Prior to allowing anyone to enter a permit required confined space, verifying that all tests specified by the entry permit have been conducted and that all procedures and equipment specified by the permit are in place.
- G. Knowing when to terminate the entry and cancel the permit.
- H. Verifying that rescue services are available and that the means for summoning them are operable.
- I. Removing unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
- J. Determining that the transfer of responsibility, dictated by the hazards and operations performed within the space, remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.
- K. Make sure a retrieval system is in place to facilitate a non-entry permit required confined space rescue unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.
- L. Retrieval systems must meet the following requirements:
  - I. Each authorized entrant will use a full body harness, with a retrieval line attached at the D-ring at center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant.
  - II. Wristlets may be used in lieu of the full body harness if you can demonstrate that the use of a full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.
  - III. The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space so that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.
  - IV. Ensure the device is rated for its intended use.
- M. Ensure proper signage is in place
- N. Auditing the work periodically throughout the process to verify &/or document permit requirements are being observed.
- O. Terminates the entry and cancels or suspends the permit.
  - I. Cancels the entry permit when entry operations have been completed
    - 1) Entry is no longer permitted
  - II. Cancels the entry permit when a condition that is not allowed under the permit arises in or near the space and cannot be abated.
  - III. Suspends the entry permit when a condition that is not allowed under the permit arises in or near the space that:
    - 1) The condition is temporary in nature
    - 2) Does not change the configuration of the space or create a new hazard
    - 3) The space must be fully reassessed before allowing reentry
  - IV. Cancelled permits must be maintained for 1 year for review of the program

#### 5. Entry Attendant

The entry attendant shall perform no duties that might interfere with the attendant's primary duty to assess and protect the authorized entrants and will be responsible for:

- A. Completing and maintaining the Wilkinson Electric Permit Required Confined Space Entry Form (checklist)

- I. The duration of the permit cannot exceed the time needed to complete the assigned work or one work shift, whichever is less.
  - B. Ensuring that the items indicated on the Wilkinson Electric Confined Space Entry Form are in compliance.
  - C. Ensuring the ventilation system must reflect sound ventilation principals of supplying enough clean make-up air and controlling the exhaust to prevent creating hazards in other areas.
  - D. Monitoring entrants' entry, exit and behaviors.
  - E. Directing entrants to exit the confined space when any of the following is observed:
    - I. Whenever unanticipated' hazards or other conditions or operation not allowed by the permit arise.
    - II. Whenever entrants exhibit symptoms of exposure to contaminants potentially in the space.
    - III. Whenever surrounding operations or conditions create hazards for entrants; including entry of the space by unauthorized personnel.
  - F. Before allowing entry into a confined space, conduct necessary atmosphere testing.
  - G. Initial testing of the atmospheric conditions shall be completed with the ventilation systems shut down.
  - H. Summoning emergency rescue services.
  - I. Assisting in non-entry rescue efforts.
  - J. Keeping non-authorized personnel from entering the permit required space.
  - K. Maintaining an accurate list of who is in the permitted space (i.e., review and confirm who is listed on the Confined Space Entry Form).
6. Entrants
- Anyone granted permission to enter a permit required confined space is accountable for:
- A. Ensuring they have been properly trained in permit-required entry.
  - B. Know the hazards of the space; including means of exposure and symptoms.
  - C. Use PPE Properly.
  - D. Properly using equipment provided for the safe condition of the permit required confined space.
  - E. Communicating with the entry attendant as necessary to ensure the attendant is able to successfully accomplish their assigned duties.
  - F. Alerting the entry attendant whenever they observe any warning sign or symptom of exposure to an uncontrolled hazard.
  - G. Following without delay any exit alert from the Entry Attendant &/or Entry Supervisor and if the entrant recognizes the warning signs or symptoms of exposure themselves
7. Safety
- A. Provide training to all participants required to work in Confined Space
  - B. Provide project support and planning as requested by the Supervisor

### PROGRAM REQUIREMENTS

1. Permit Required Confined Space (PRCS)

If a permit required confined space is identified in an Wilkinson Electric work area, supervision or designee must ensure:

  - A. Posting of signage stating the following or equally effective means, "DANGER" (line 1) "PERMIT REQUIRED (line 2) CONFINED SPACE (line 3) DO NOT ENTER (line 4) in the vicinity of the location.
  - B. Notify Wilkinson Electric employees and the controlling contractor of the location and danger of the space.
  - C. Only Wilkinson Electric Authorized employees shall be allowed to enter.
  - D. Hazard assessment (i.e., JHA, PTP, Work Plan, etc....) to include information concerning the permit required confined spaces including location and instruction not to enter unless authorization by Wilkinson Electric supervision. This is to be reviewed (during a pre-entry meeting) with all personnel involved with the entry.

**Note:** *Confined spaces are considered permit-required confined space and hazardous until determined to be otherwise.*

  - E. If the Wilkinson Electric competent person informs the site supervision that the work assignment(s) involve entry into one or more permit spaces, supervision must:
    - I. Review and comply with Client/General Contractor site specific protocols.



Manhole is a Typical Confined Space





- II. If the Supervision decides that Wilkinson Electric employees will enter a permit required confined space, a site specific written permit space protocol must be created that be complies with the following:
  - III. The written protocol must include:
    - 1) The site-specific process for obtaining an entry permit, duration of the issued permits, and acceptable entry conditions.
    - 2) The steps that will be taken to prevent unauthorized entry and protect involved personnel (i.e., if applicable, pedestrians, vehicles or any other barriers necessary to protect entrants from external hazards).
    - 3) The name of the Wilkinson Electric employees responsible for completing the "Permit Required Confined Space Entry Permit" (checklist) identifying and evaluating the hazard(s) specific to the confined space to be entered and conducting pre-entry atmospheric testing.
    - 4) Wilkinson Electric employees will not be allowed to enter Permit Required Confined Space under the following conditions:
      - a) Oxygen deficient/enriched atmosphere
      - b) Combustible gases/vapors
      - c) Toxic gases/vapors
  - IV. Permit space specific hazard condition control measures, including but not limited to continuous atmospheric monitoring.
    - 1) Required PPE/Equipment needed for safe access/egress and work.
    - 2) Method of communication between attendants and entrants.
    - 3) Name of all Wilkinson Electric Employee Attendant(s) and Entrants.
      - a) Attendants may be assigned to more than one permit space provided the duties described in the "Entry Attendant" section of the policy can be effectively performed for each space assigned.
    - 4) Permit space non-entry rescue/emergency equipment/process
    - 5) The "permit" (written protocol) must be made available prior to and during entry operations for inspection by all affected employees.
2. Alternative Procedures To (PRCS)
- A. If the atmospheric hazard in a permit space can be controlled by forced air ventilation, the use of less stringent procedures instead of full permit space procedures when workers enter the space may be used. The alternative procedures may be used if the following can be shown:
  - B. Any conditions making it unsafe to remove an entrance cover can be eliminated before the cover is removed.
  - C. The opening must be immediately guarded to prevent accidental fall through the opening and to prevent foreign objects from entering the opening.
  - D. All physical hazards are eliminated or isolated.
  - E. Atmospheric testing must be performed and allowed to be observed prior to entry.
    - I. Continuous monitoring is required to ensure ventilation is preventing accumulation of a hazardous atmosphere.
  - F. The only hazard is an actual or potential hazardous atmosphere that can be and is made safe for entry using continuous forced air ventilation.
  - G. Continuous forced air ventilation must be used.
    - I. Exhaust ventilation is not allowed
    - II. Air supply for ventilation is from a clean source
    - III. Directed & maintained in the immediate area of where entrant(s) is located within the space.
  - H. Safe method of access and egress must be provided.
  - I. Permit space warning signs are posted.
  - J. Entry restrictions are enforced
  - K. In the event the ventilation system stops working, entrants must be able to exit the space safely.
  - L. If a hazard is detected during entry:
    - I. Employers must make sure each worker leaves the space immediately;
    - II. The space must be evaluated to determine how the hazard developed; and
    - III. The employer must implement measures to protect workers from the hazard before any subsequent entry takes place.
  - M. The competent person, designee or supervision that uses the alternative procedures must:
  - N. Document the reasons with supporting data to demonstrate these criteria have been met.
  - O. The documentation must be made available to each employee who enters the space.
3. Non-Permit Confined Space

Confined spaces are considered hazardous until determined to be otherwise through testing and observation by the competent person. If a work assignment is taking place in a Non-Permit Confined Space, the competent person, supervision or designee must:

- A. Ensure the Confined Space Form (Checklist) indicates it's a Non-Permit Required Confined Space Entry and documents initial atmospheric testing and identifies potential external hazards and the appropriate control measures to be implemented.
- B. Review the Confined Space Entry Form with involved personnel and confirm that the space does not meet the definition of a permit-required confined space.
- C. Continuous air monitoring is required during the entry of the Non-Permit Confined Space.

#### 4. Air Sampling

- A. Conduct air sampling to determine:
  - I. Oxygen levels (O<sub>2</sub>) between 19.5% and 23.5%
  - II. Combustible/Flammable limits (LEL) must be lower than 10%
  - III. Toxic Vapors/Fumes (CO, H<sub>2</sub>S): Must be verified and below the permissible exposure level (PEL)
- B. Identify and protect employee(s) from any potential hazards that could affect workers on the confined space including but not limited to:
  - I. Silica dust
  - II. Welding fumes
  - III. Exhaust fumes
  - IV. Energized circuits
- C. Before removing an entrance cover, eliminate any unsafe condition that could expose workers to an at-risk condition.
- D. Provide protection as required to eliminate any potential safety hazard to employees of other trades or Wilkinson Electric employees not working in the confined space.
- E. Provide continuous air sampling unless the confined space competent person can demonstrate that periodic monitoring is sufficient.



#### 5. Procedures for Atmospheric Testing

- A. Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the confined space and verification that acceptable entry conditions exist.
- B. Before the confined space cover is removed, any known internal or external conditions potentially exposing personnel to hazards must be addressed through elimination, control of the hazard, or use of appropriate PPE until the hazards can be addressed.
- C. If the confined space is vacated, the competent or designee person shall determine the need for atmospheric retesting prior to re-entry.

#### 6. Elevation

The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed, and acceptable entry conditions stipulated for that space.

#### 7. Verification Testing

- A. The atmosphere of a permit space which may contain a hazardous atmosphere should be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) should be recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition.
- B. Entry team members must be afforded the opportunity to observe space testing; atmospheric monitoring and the results.

#### 8. Duration of Testing

Measurement of values for each atmospheric parameter should be made for at least the minimum response time of the test instrument specified by the manufacturer.

#### 9. Testing Stratified Atmospheres

When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope should be tested a distance of approximately 2 feet (0.6096m) in the direction of travel and to each side

#### 10. Order of Testing

- A. Test oxygen levels first because most combustible gas meters are oxygen dependent and will not provide reliable readings in an oxygen deficient atmosphere.
- B. Combustible gases are tested for next because the threat of fire or explosion is both more immediate and more life threatening, in most cases, than exposure to toxic gases and vapors.

- C. Then tests for toxic gases and vapors are performed last. However, most multi-gas meters measure in an automated process.

#### 11. Required Confined Space Equipment

The following is a list of basic equipment that must be readily available before entry into a permit required confined space:

- A. Gas Monitor
- B. Communication equipment
- C. Non-entry retrieval equipment
- D. Ventilation fan
- E. Lockout/Tagout devices, as needed
- F. Task lighting (i.e., headlamp, flashlight, etc....)
- G. PPE as required



#### 12. Inspection and Storage

- A. The Competent Person or designee must inspect all equipment used for confined space entry.
- B. Equipment that is defective or damaged shall be red tagged (danger do not use) and returned to the Safety or warehouse personnel to be repaired or destroyed.
- C. Damaged or defective equipment will be replaced before entry into the confined space.
- D. Confined space entry equipment shall be stored in a manner that will not adversely affect its integrity and in a location that is free of harmful agents.

#### 13. Isolation Requirements

All energy sources such as pipelines, electrical services, agitators and any other services leading to the confined space must be isolated or made safe prior to personnel entering. Do this by means of the following:

- A. Physically disconnected
- B. Blanked / Valved off
- C. Locked and tagged

#### 14. Site Alarms

The Confined Space Entry Permit will be canceled or suspended, and personnel must exit the space immediately in the event that site alarm (i.e., fire, gas release, chemical spill, severe weather, etc....) is sounded, with the exception of a known and planned test alarm. Reentry may recommence once the steps outlined within the "Entry Supervisor" section of this policy for canceled or suspended permits process has been determined.

#### 15. Ventilation

- A. Ventilate a confined space whenever its atmosphere is hazardous in any of these ways:
  - I. The air contains too little oxygen
  - II. It contains too much oxygen
  - III. The atmosphere is flammable
  - IV. The atmosphere is toxic
- B. Begin ventilating far enough in advance so that the air will be safe before anyone enters the space. Conduct testing to determine the success of the ventilation effort.
- C. Continue ventilating as long as a worker is in the space.
- D. Keep the intake fan close to the work area to maintain control and keep away from any possible exhaust fumes (i.e., vehicle or generator exhaust).



#### 16. Permit Required Confined Space Rescue – Entry

- A. Entering a confined space to facilitate rescue is very dangerous and requires specialized training.
- B. Wilkinson Electric employees are not trained to perform entry rescue and are not permitted to enter a permit required confined space for the purpose of rescuing coworkers.
- C. Emergency response personnel shall render such aid.
  - I. The local emergency response authority or local job-site rescue team must be contacted prior to entering the space to ensure they have the capability and availability to facilitate a rescue.
  - II. In the event of an emergency situation the entry supervisor &/or attendant must be prepared to assist emergency response personnel.
  - III. Provide location to emergency responders.
  - IV. Provide information of the events leading up to the event.
  - V. Inform rescue personnel of the hazards they might encounter within the confined space.
  - VI. Identify the number of personnel in the confined space.
  - VII. Provide copies of appropriate SDS (*formerly MSDS*) as applicable.



17. Program Review shall be at least once a year.

#### **TRAINING**

1. Employee shall attend and successfully complete Wilkinson Electric 19.1 Confined Space Training prior to working in a permit or non-permit confined space. Each confined space entrant shall be made aware of the general hazards associated with confined space.
  - A. Discussion of specific confined space hazards associated with the facility, location or operation.
  - B. Reason for, proper use, and limitations of personal protective equipment and other safety equipment required for entry into confined spaces.
  - C. Explanation of permits and other procedural requirements for conducting a confined space entry.
  - D. Agreement and Understanding of what conditions would prohibit entry.
  - E. Duties and responsibilities as a member of the confined entry team.
  - F. Description of how to recognize symptoms of overexposure to probable air contaminants, and method(s) for alerting attendants.
  - G. Emergency Response Procedure for specific confined space.
2. If applicable, employees assigned to a rescue "team" must hold a current CPR/1<sup>st</sup> aid card and be trained in the use of and demonstrate proficiency in using the rescue equipment provided for the confined space entry.
3. Refresher training shall occur at least once a year.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

- 19.1.1 Confined Space Entry Checklist – No Permit
- 19.1.2 Confined Space Entry Checklist - Permit



### Confined Space Entry Checklist

Project: \_\_\_\_\_ Permit #: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ a.m. p.m.

Supervisor: \_\_\_\_\_ Completed Time: \_\_\_\_\_ a.m. p.m.

1. Purpose of entry: \_\_\_\_\_  
\_\_\_\_\_

2. Work to be performed: \_\_\_\_\_  
\_\_\_\_\_

3. Personnel performing work: \_\_\_\_\_  
\_\_\_\_\_

4. Job Hazard Analysis complete **Yes** **No**

5. Atmospheric Testing (no entry)

Time: \_\_\_\_\_ Oxygen: \_\_\_\_\_ % L.E.L. \_\_\_\_\_ % Toxic \_\_\_\_\_ PPM CO \_\_\_\_\_ %

6. Energy Isolation:(no entry) Refer to energy isolation section for additional information.

ENERGY SOURCE	N/A	YES	NO
Lines and valves blocked or blinded			
Pumps blocked or blinded			
Electrical supply locked out			
All mechanical devices at a zero-energy state and chocked or blocked			
Chemical and thermal energy isolated			

7. Ventilation

TYPE OF VENTILATION	N/A	YES	NO
Mechanical suction and discharge / blowers			
Natural ventilation only			

8. Atmosphere Testing after isolation and ventilation

Time: \_\_\_\_\_ Oxygen \_\_\_\_\_ % L.E.L. \_\_\_\_\_ % Toxic \_\_\_\_\_ PPM CO \_\_\_\_\_ %

9. Access to Confined Space is denied to all employees when ANY of the following conditions exist:

- A. Oxygen content is below 19.5% or above 23%
- B. Lower explosion limit above 10%
- C. Toxic gases above the permissible exposure level

\_\_\_\_\_  
Testers Signature

10. Communication Procedures \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. Rescue Procedures \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12. Attendant(s), entry personnel have current training **Yes** **No**

13. Required equipment:

EQUIPMENT	N/A	YES	NO
Gas monitor calibrated and tested			
Oxygen monitor calibrated and tested			
All energy isolation devices installed			
Safety harness and life lines			
Hoist equipment inspected and in place			
Communications equipment tested and in place			
Respiratory protection equipment inspected			
All protective clothing inspected			
G.F.C.I. on all electrical equipment			
Barricades in place			
Rescue equipment inspected and in place			
Emergency communications with attendant			
Personal protective equipment inspected			
Explosion proof equipment			

14. Permit required confine space? **Yes** **No**

\_\_\_\_\_  
Supervisor Signature

\_\_\_\_\_  
Attendant Signature

\_\_\_\_\_  
Entrant Name/Signature

\_\_\_\_\_  
Controlling Contractor

\_\_\_\_\_  
Attendant(s) Signature

\_\_\_\_\_  
Entrant Name/Signature

\_\_\_\_\_  
Representative Signature:

## Confined Space Entry Checklist / Permit

Project: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor: \_\_\_\_\_ Time: \_\_\_\_\_

Permit # \_\_\_\_\_

1. Purpose of entry \_\_\_\_\_

2. Work to be performed \_\_\_\_\_

3. Personnel performing work \_\_\_\_\_

4. Job Hazard Analysis complete **YES NO**

5. Atmospheric Testing (no entry)

Time \_\_\_\_\_ Oxygen \_\_\_\_\_% L.E.L. \_\_\_\_\_% Toxic \_\_\_\_\_PPM

6. Energy Isolation:(no entry) **Refer to energy isolation section for additional information.**

ENERGY SOURCE	N/A	YES	NO
Lines and valves blocked or blinded			
Pumps blocked or blinded			
Electrical supply locked out			
All mechanical devices at a zero energy state and chocked or blocked			
Chemical and thermal energy isolated			

7. Ventilation

TYPE OF VENTILATION	N/A	YES	NO
Mechanical suction and discharge / blowers			
Natural ventilation only			

8. Atmosphere Testing after isolation and ventilation

Time \_\_\_\_\_ Oxygen \_\_\_\_\_% L.E.L. \_\_\_\_\_% Toxic \_\_\_\_\_PPM

**Employees will be denied access to the confined space if any one or any combination of the following exist:**

- A. Oxygen content is below 19.5% or above 23%
- B. Lower explosion limit above 10%
- C. Toxic gases above the permissible exposure level

Tester's Signature \_\_\_\_\_

9. Communication Process \_\_\_\_\_

10. Rescue Process \_\_\_\_\_

11. Attendant(s), entry personnel have current training **YES** **NO**

12. Required equipment:

Equipment	N/A	YES	NO
Gas monitor calibrated and tested			
Oxygen monitor calibrated and tested			
All energy isolation devices installed			
Safety harness and life lines			
Hoist equipment inspected and in place			
Communications equipment tested and in place			
Respiratory protection equipment inspected			
All protective clothing inspected			
G.F.C.I. on all electrical equipment			
Barricades in place			
Rescue equipment inspected and in place			
Emergency communications with attendant			
Personal protective equipment inspected			
Explosion proof equipment			

13. Permit required confine space **YES** **NO**

\_\_\_\_\_  
Supervisor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Attendant(s) Signature

\_\_\_\_\_  
Attendant(s) Signature

## Scaffolding Safety Program

### PROGRAM STATEMENT

All employees shall be protected from hazards associated with working on and/or using scaffolding, whether Wilkinson Electric or another Contractor or Supplier erected the scaffolding.

### DEFINITIONS

1. Bearer: A horizontal member which the scaffold platform rests and which joins uprights, posts, poles, and similar members.
2. Boatswains chair: A single point adjustable suspension scaffold consisting of a seat or sling designed to support one person in a setting position.
3. Brace: A rigid connection that holds one scaffold member in a fixed position with respect to another member.
4. Cleat: A structural block used at the end of a platform to prevent the platform from slipping.
5. Competent person: One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazards or remove the employee from the hazardous condition.
6. Coupler: A device for locking together the tubes of a tube and coupler scaffold.
7. Exposed power lines: Electrical power lines which are accessible to employees, which are not shielded.
8. Eye-splice: A loop with or without a thimble at the end of a wire rope.
9. Fabricated decking: Manufactured platforms made of wood, metal or other materials.
10. Fabricated frame (tubular welded frame scaffold): Scaffold consisting of a platform supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members.
11. Guardrail system: A vertical barrier consisting of a top and mid rail erected to prevent workers from falling to a lower level.
12. Landing: A platform at the end of a flight of stairs.
13. Large area scaffold: A scaffold erected over an entire work area.
14. Means of access: A safe and convenient method for workers to enter and exit scaffold platforms.
15. Mobile scaffold: Portable, caster or wheel-mounted support scaffold.
16. Open sides: The edge of a platform more the 18" inches away from a sturdy vertical surface.
17. Open ended: The end of a platform that is more than 18" inches from a sturdy vertical surface.
18. Outrigger: A structural member used to increase the base width of a scaffold to increase stability.
19. Platform: A work surface elevated above lower levels.
20. Rated load: The manufacture's specified maximum weight limit.
21. Runners: The lengthwise horizontal spacing or bracing member that supports the bearer's.
22. Safety trained: An employee trained by a competent person to recognize the hazards associated with the type of scaffolding he/she is working on.
23. Stair tower: Scaffold components, which contain internal stairway units, and rest platforms, used to provide access to other elevated points.
24. Suspension scaffold: One or more platforms suspended by ropes or other non-rigid means from an overhead structure.
25. Systems scaffold: Scaffold consisting of posts with fixed connection points that accept runners, bearers, and diagonals that can be connected at predetermined levels.
26. Tube and coupler scaffold: A scaffold consisting of a platform supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.
27. Walkway: A portion of a scaffold platform used for access ONLY, not as a work level.

**RESPONSIBILITIES**

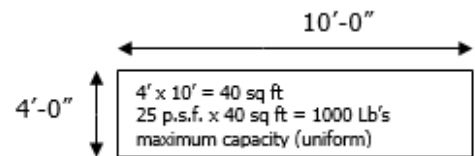
1. Employee
  - A. Shall read the Scaffolding Inspection Tag prior to use.
  - B. Shall report scaffolding defects immediately to their supervisor or competent person
2. Competent Person
  - A. Shall directly supervise scaffold when erected, moved, altered and dismantled
  - B. Shall inspect scaffolding prior to employee use.

**PROGRAM REQUIREMENTS**

## 1. Safe Work Practices

If unique or unusual scaffolding issues arise, the Competent Person will contact Safety prior to work.

- A. Scaffolds must be erected, moved, altered and dismantled only under the direct supervision of a Competent Person.
- B. Do not use a scaffold that is not tagged (a green completed inspection tag must be affixed to the scaffolding before use).
- C. Scaffold duty ratings
  - I. Light duty 25 Lb. Per square foot.
  - II. Medium duty 50 Lb. Per square foot.
  - III. Heavy-duty 75 Lb. Per square foot.
- D. Scaffold platforms must be a minimum of 18 inches wide.
- E. Scaffolding must have a ladder designed into end braces or a properly secured standard ladder attached before it can be climbed.
- F. Scaffolds with work platforms of 10 feet or more above the ground or next lower level must have complete guardrails and toe boards installed.
- G. All scaffold work platforms must be completely decked between the uprights and/or guardrail supports.
- H. The footing or anchorage for all scaffolds must be sound, rigid, and capable of supporting the loaded scaffold without settling or displacement.
  - I. This is very important when erecting a scaffold on unpaved soil and/or on recently disturbed soil.
- I. Scaffolds must be capable of supporting, without failure, its own weight and at least 4 times the maximum intended load.
- J. Unstable objects such as barrels, boxes, loose bricks, or concrete blocks will not be used to support scaffolds.
- K. A 12" X12" mud sill or horizontal timber and base plates are recommended.
- L. When using leveling jacks, 3/4 of its length must remain inside the scaffold leg.
- M. The poles, legs, or uprights of scaffolds must be plumb, securely and rigidly braced to prevent swaying and displacement.
- N. Manufactured scaffold components must not be modified; only original manufactures accessories or equipment will be used.
- O. Scaffold components manufactured by different manufacturers or of dissimilar metals will not be intermixed unless the components fit together without force, modification and the scaffolds structural integrity is maintained as determined by a Competent Person.
- P. Design drawings must be made prior to erection and kept on site for any scaffold over 30' high. A licensed professional engineer, competent in this field, must make them.
- Q. Wheels of rolling scaffolds must be locked during use.
- R. No one is permitted to ride on a rolling scaffold while it is being moved
- S. Supported scaffolds with a height to base width ratio of more than four to one (4:1) must be restrained from tipping by guying, tying, bracing, or equivalent means.
- T. Guys, ties, and braces must be installed according to the scaffold manufacturer's recommendations or at the closest horizontal member to the 4:1 height. This will be repeated vertically at locations of horizontal members every 20 feet or less thereafter for scaffolds 3 feet wide or less and every 26 feet or less thereafter for scaffolds greater than 3 feet wide.
- U. The top guy, tie or brace of completed scaffolds must be placed no further than 4:1 height from the top. Such guys, ties and braces will be installed at each end of the scaffold and at horizontal intervals not to exceed 30 feet.



## 2. Inspection

- A. Employees using scaffolding must read scaffold tags prior to using any scaffold.
- B. Instructions or warnings outlined on scaffold tag must be followed.
- C. Employees must inspect the scaffold prior to, and during use. Report any defects or concerns to the Competent Person immediately.

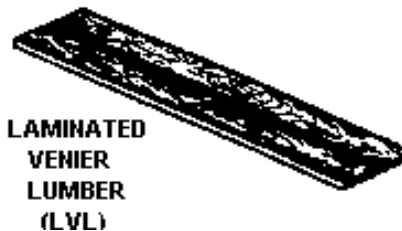


- D. Scaffolds and scaffold components must be inspected for visible defects by a Competent Person prior to initial use, before each work shift, and after any occurrence, which could affect a scaffold’s structural integrity.
  - E. Before erecting and during dismantling, the Competent Person must inspect all scaffold components. Those found with defects must be repaired or replaced immediately.
  - F. Handrails, mid-rails, cross bracing, and steel tubing will be inspected for nicks, especially near center span, and indications where a welding arc has struck.
  - G. Scaffold components must be straight and free from bends, kinks dents, and severe rusting.
  - H. Scaffold frame weld zones must be inspected for cracks and ends of tubing for splitting or cracking.
  - I. Manufactured decking must be inspected for loose bolt or rivet connections and bent, kinked, or dented frames. Plywood surfaces should be checked for softening due to rot or wear and peeling or delaminated layers at the edges. Scaffold boards should be inspected for rot, cracks, notches, and other damage. Also, inspect cleats if used.
  - J. Each quick-connecting device, whether spring, threaded connection, or toggle pin arrangement, must be inspected to see that it operates properly.
  - K. Casters, if used, must be inspected for smooth rolling surfaces, free turning, free acting swivel, and to be sure that the locking mechanism is in good working order.
4. Scaffold Decking (Planks)
- A. Scaffold decking planks fall into three major categories.
    - I. Aluminum or steel hook-on type planks, specifically manufactured to be scaffolding planks.
    - II. Man-made wood planks specifically manufactured to be scaffolding planks.
    - III. Solid sawn (natural) wood.
  - B. Scaffold planks shall not deflect more than 1/60 of their span when loaded. EXAMPLE (a 7’ span when loaded should not deflect more than  $7'/60$  or  $(7 \times 12''/60) = 84''/60 = 1.4''$ .

I. Aluminum or steel hook-on type planks specifically manufactured to be scaffold planks.



- II. Man-made wood planks specifically manufactured to be scaffold planks. These are usually a laminated veneer, similar to plywood except that all grain runs parallel to the length. (it will be stamped into the end of the board scaffold graded planking).
  - 1) No paint or material, which would affect proper visual board inspection or work surface safety, may be applied to the top or bottom of scaffold boards. Scaffold boards may be painted 10 to 12 inches on each end to denote use for scaffold decking only.
  - 2) Scaffold boards are not to extend over their end supports more than 12” or less than 6”.
  - 3) All decking on platforms shall be overlapped (minimum 12”) or secured from movement.
  - 4) Do not use cleated boards with cleats turned up.



III. Typical wood scaffolding planking and markings



Grade stamp courtesy of Southern Pine Inspection Bureau







Grade stamp courtesy of West Coast Lumber Inspection Bureau

- 1) Solid Sawn (Natural) Wood
  - a) All scaffold planking must be 2" X 10" or 2" X 12" scaffold grade material (it will be stamped into the end of the board scaffold graded planking).
  - b) No paint or material, which would affect proper visual board inspection or work surface safety, may be applied to the top or bottom of scaffold boards. Scaffold boards may be painted 10 to 12 inches on each end to denote use for scaffold decking only.
  - c) Scaffold boards are not to extend over their end supports more than 12" or less than 6".
  - d) All decking on platforms shall be overlapped (minimum 12") or secured from movement.
  - e) Do not use cleated boards with cleats turned up.

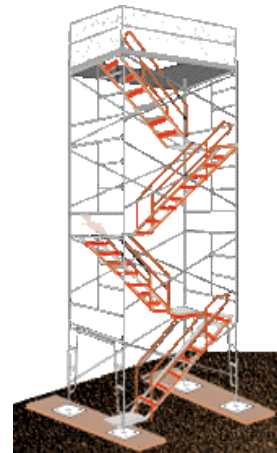
3. Scaffold Tags

- A. All scaffolds built or used by Wilkinson Electric or our Vendors must be tagged.
- B. The crew that erects the scaffold will complete and attach the appropriate tag.
- C. The tag should be placed at eye level on or near the access ladder, so it is easy to locate and plainly visible.
- D. A Competent Person will verify that the scaffold is erected properly, and the tag attached is proper and completely filled out.
- E. If the scaffold needs to be altered in any way, the competent person must be contacted to authorize the change and re-tag if necessary.

	<b>NO TAG:</b> Untagged scaffold will not be used
	<b>Green Tag:</b> Scaffold is completed with handrails, mid-rails, toe-boards and decking
	<b>Yellow Tag:</b> Scaffold is incomplete and noted for cautions and/or fall protection required until guardrails are completed
	<b>Red Tag:</b> Scaffold is under construction or dismantling - NOT SAFE to Use

4. Access to Scaffold Platforms

- A. When scaffold platforms are more than 2 feet above or below a point of access, an attached ladder or other approved ladder/stair scaffold users to reach the platform must use system.
- B. Hook-on and attachable ladders must be positioned so that their bottom rung is not more than 24 inches above the scaffold supporting level.
- C. Access ladders must extend 36" above the platform being accessed, or equivalent safe access will be provided.
- D. Scaffold bracing must not be used for access or climbing.
- E. Integral prefabricated scaffold access frames must be specifically designed and constructed for use as ladder rungs may be used for access to platforms.
- F. Hook-on and attachable ladders must be broken with rest platforms at 30-foot maximum vertical intervals. Hook-on and attachable ladders must be specifically designed for use with the type of scaffold being used.
- G. Rungs must be uniformly sized and spaced with a maximum interval between rungs of 16 3/4 inches and they must be at least 11 1/2 inches long (left to right).



5. Scaffold Use

- A. Scaffolds must not be loaded in excess of their maximum intended loads or rated capacities.
- B. Debris must not be allowed to accumulate on platforms.
- C. Do not stack brick, tile, block, or similar material higher than 24" on the scaffold deck.
- D. Makeshift devices, such as boxes and barrels must not be used on top of scaffold platforms to increase the working level height of Employees.
- E. Ladders may only be used to increase the working level height of Employees when:
- F. The ladder is placed and secured against a structure which is not a part of the scaffold, and the scaffold/platform is secured against movement and any side thrust exerted by use of the ladder.
- G. The ladder must be secured against movement at the top and the bottom legs. This ladder use is approved by the competent person.
- H. Where swinging loads are being hoisted onto or near scaffolds such that the loads might contact the scaffold, tag lines or equivalent measures to control the loads must be used.
- I. Scaffolds must never be altered or moved while they are in use or occupied.
- J. Scaffolds must not be moved or dismantled without first removing all loose tools, materials, and equipment resting on the scaffold deck.
- K. Employees will not work on scaffolds during storms or high winds.
- L. Employees will not work on scaffolds, which are covered with ice or snow, unless all ice or snow is removed, and planking sanded to prevent slipping.
- M. Scaffolds must not be erected, used, dismantled, altered, or moved such that they or any conductive material handled on them might get closer to exposed and energized lines than as follows:

Insulated Lines (Minimums)

(Voltage)	Distance
Less than 300 Volts	3 Feet
330 Volts to 50 KV	10 Feet
More than 50 KV	10 feet plus 4 inches for each 1 KV over 50 KV or 2 times the length of the line insulator. But never less than 10 feet

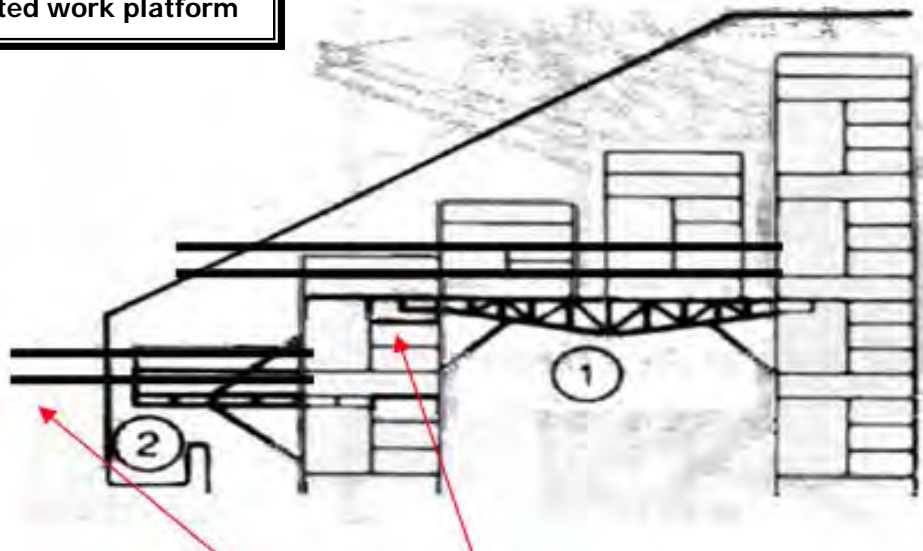
Non-insulated Lines (Minimums)

(Voltage)	Distance
Less than 50 KV	10 Feet
More than 50 KV	10 Feet plus 4 inches for each 1 KV over 50 KV or 2 times the length of the line insulator but never less than 10 feet

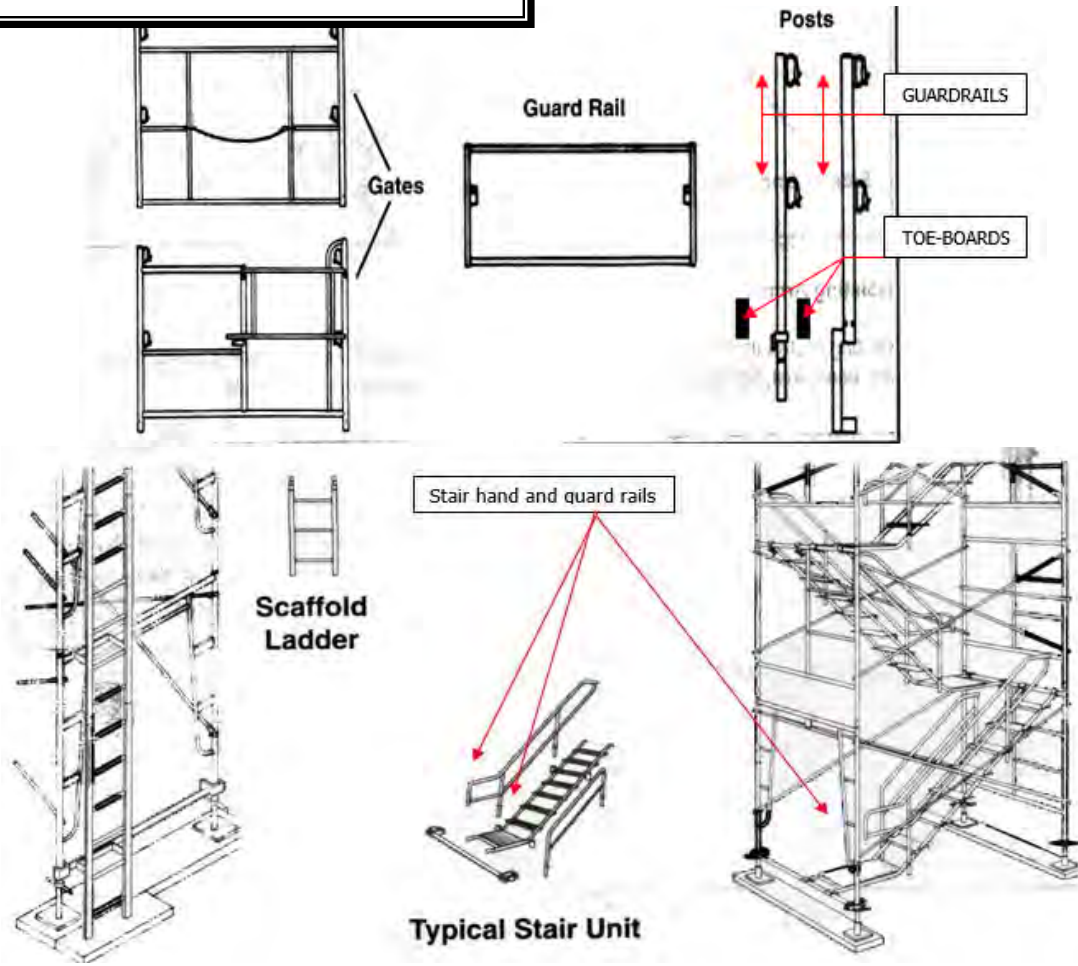
6. Fall Prevention and Fall Protection

- A. Each Employee on scaffolding more than 10 feet above the ground or next lower level must be protected from falling to that lower level by means of a complete guardrail system or an active fall protection system. This requirement applies to scaffold users and scaffold erectors/dismantlers.
- B. Scaffold work platforms 6 feet, and higher should have a complete guardrail system installed along all open sides and ends of platforms to prevent accidental falls
- C. Guardrail systems must be completely installed before the scaffold is released for use by Employees other than erection and dismantling crews.
- D. Guardrail systems shall be surfaced to prevent injury to Employees such as punctures or lacerations.
- E. Top edge height of top rails or equivalent member shall be installed between 39 and 45 inches.
- F. Each top rail or equivalent member must be capable of withstanding, without failure, a force applied in any downward or outward direction of at least 200 pounds.
- G. Rope, No. 9 wire, banding material, etc., must not be used as a top rail or mid-rail.
- H. Mid-rails must be installed at a height approximately midway between the top edge of the guardrail system and the platform surface. When intermediate members are used as a mid-rail, they shall not be more than 19 inches apart.
- I. Each mid-rail or equivalent member must be capable of withstanding, without failure, a force applied in any downward or outward direction of at least 150 pounds.
- J. Where guardrail systems are incomplete, missing, or moved to allow access for work, personal fall protection will be used on the affected platform(s).

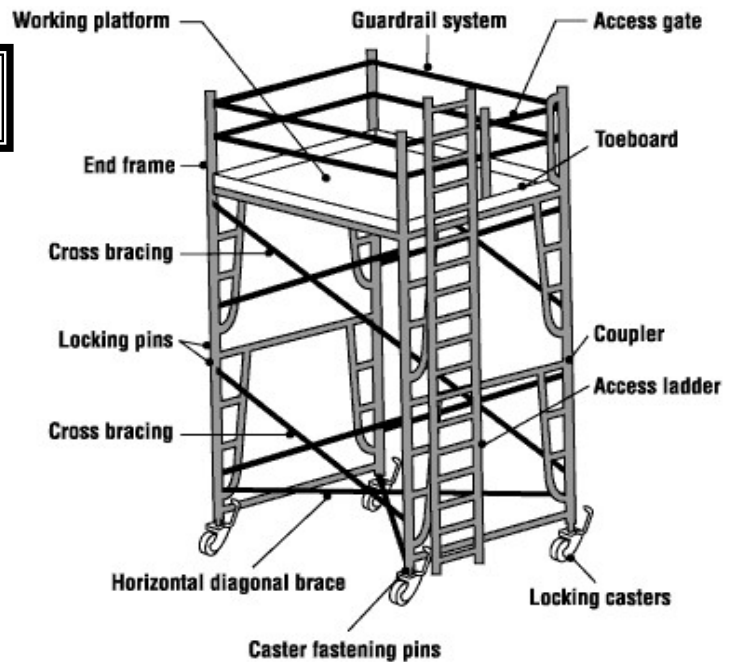
- K. In some cases, a building, structure, equipment, or piping may prevent the proper installation of a complete scaffold guardrail. The Competent Person will determine whether obstructions meet or exceed the applicable guardrail requirements. The Competent Person should use the Scaffold Tag to indicate when these conditions are acceptable.
  - L. Approved personal fall protection is required any time Employees work on or erect a scaffold which is not protected by a complete deck and guardrails, and 6 feet or more above the ground or next lower level, or if working from a suspended scaffold platform. Working as stated above, means while traveling, stationary, or at any time exposed to a fall hazard.
  - M. Personal fall protection used on scaffolds must be attached by a lanyard to a vertical lifeline, horizontal lifeline or approved scaffold structural member.
  - N. Personal fall protection is not required while using a designed ladder or access system, provided "three points of contact" are maintained when ascending or descending a scaffold ladder.
7. Falling Object Protection
- A. In addition to wearing hard hats, Employees will be provided with additional protection from small objects falling from a scaffold through the installation of toe boards, barricades, mesh/screens, debris nets, or catch platforms/canopies.
  - B. Where there is a hazard of tools, materials, or small objects falling from the surface of scaffold platforms and striking employees below, the area below the scaffold to which objects can fall shall be barricaded and Employees shall not be permitted to enter the hazard area.
  - C. A 2" X 4" (nominal) toe board must be erected along all edges of scaffold platforms more than 10 feet above lower levels.
  - D. Where tools and materials are stacked above the height of the toe board, two additional protective measures will be considered:
    - I. Higher toe boards
    - II. Mesh/screen put up against the guardrail with openings small enough to contain materials on the platform.
  - E. If used these structures must be strong enough to withstand the impact forces of the potential falling objects and shall be erected over the employees below.
8. Types of Scaffolding:
- A. Tubular Welded frame (bricklayers) scaffold: Most common in construction. Consisting of fabricated end frames with integral locking posts, horizontal & diagonal cross bracing, and intermediate frame members, fully planked with a means of access and guardrail system.

**Typical elevated work platform****Tubular Framed Scaffold system with putlogs (truss) used as an elevated work platform**

**Components of Passive Fall Protection**



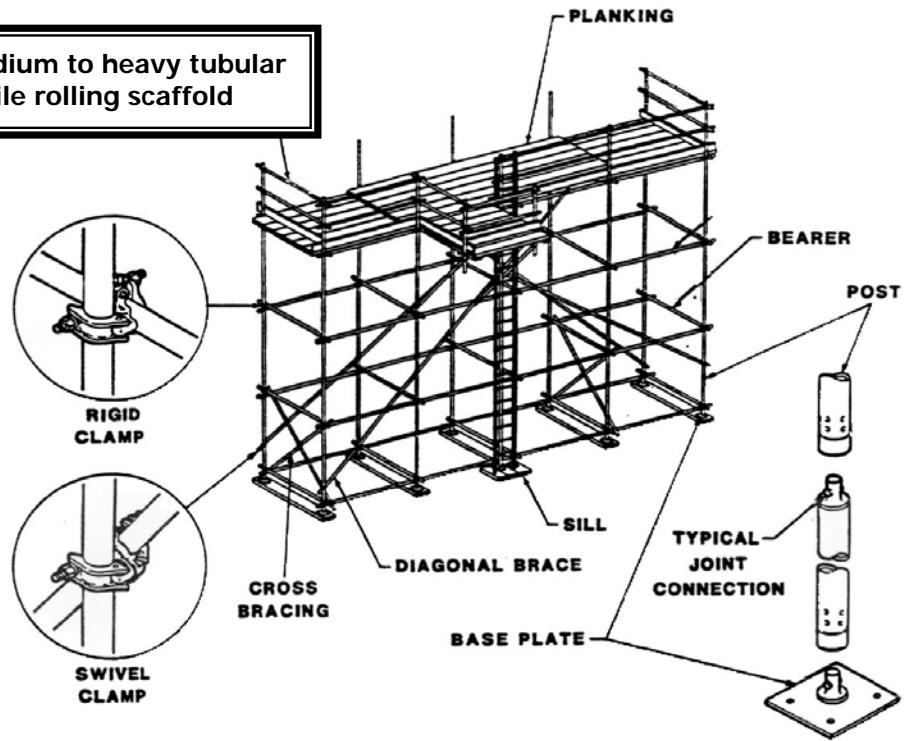
**Components for light to medium duty tubular frame fixed and mobile scaffolding**





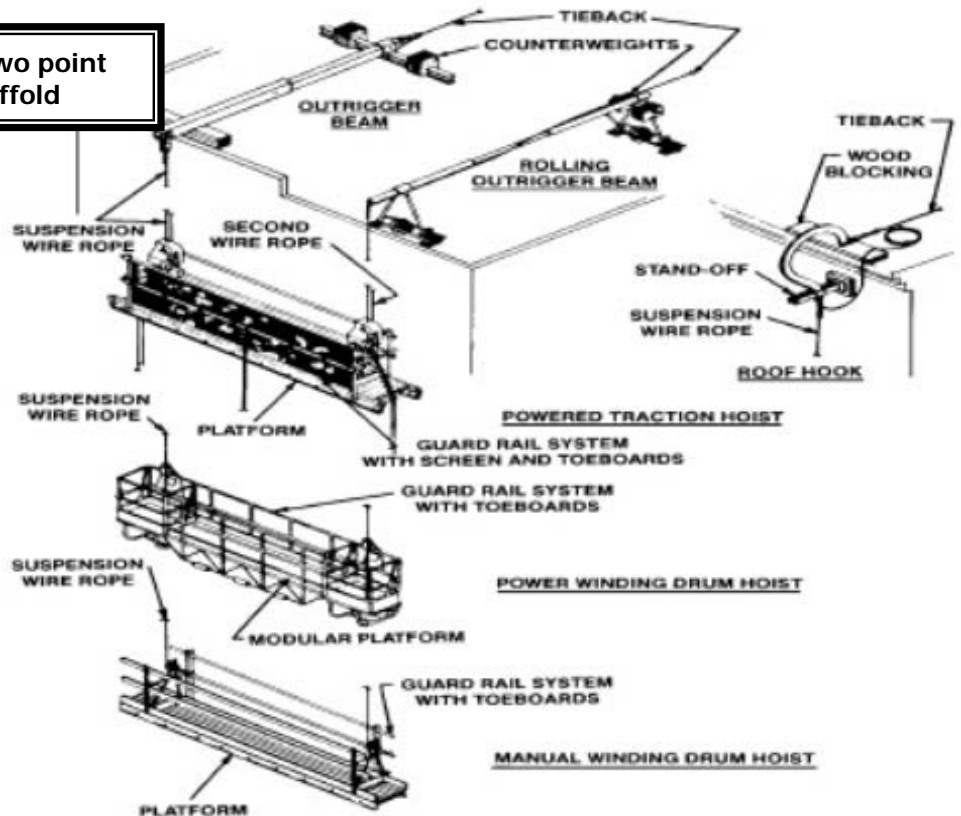
- B. Tube and Coupler Scaffold: Consisting of tubing used as posts, bearers, braces, ties, and runners and rigid and swivel couplers to connect uprights system and join the various parts. The scaffold must be fully planked, a means of access and guardrail system

**Components of a medium to heavy tubular frame fixed and mobile rolling scaffold**

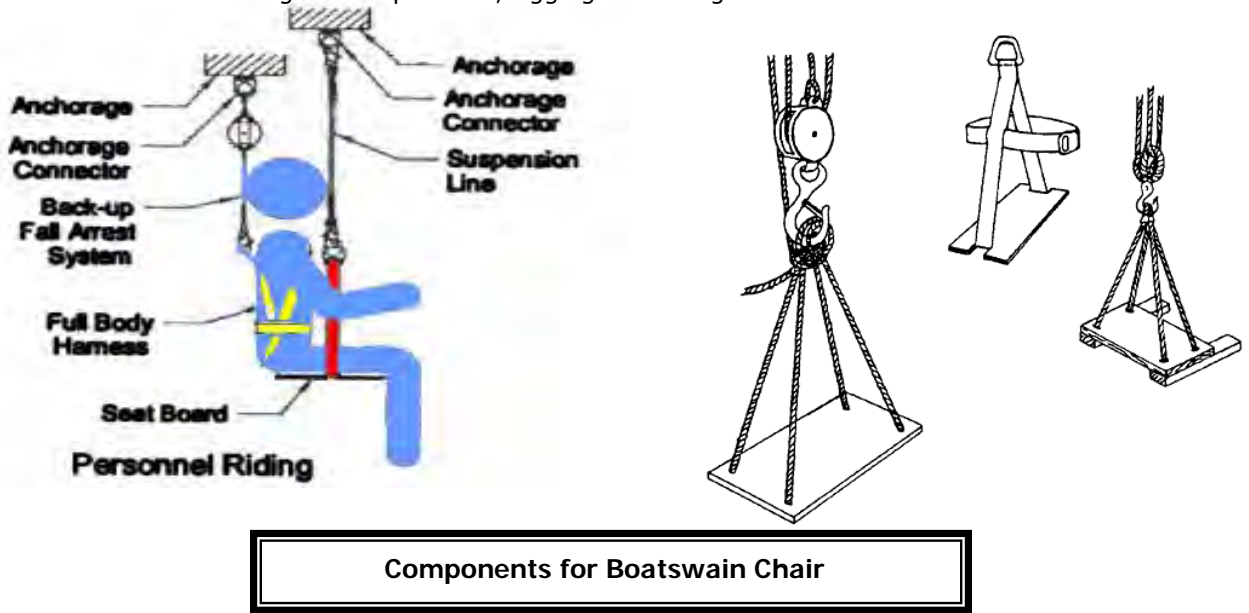


- C. Two-point suspension scaffold: consisting of outrigger beams and roof tiebacks, working platform with guardrails, and hoist rigging system.

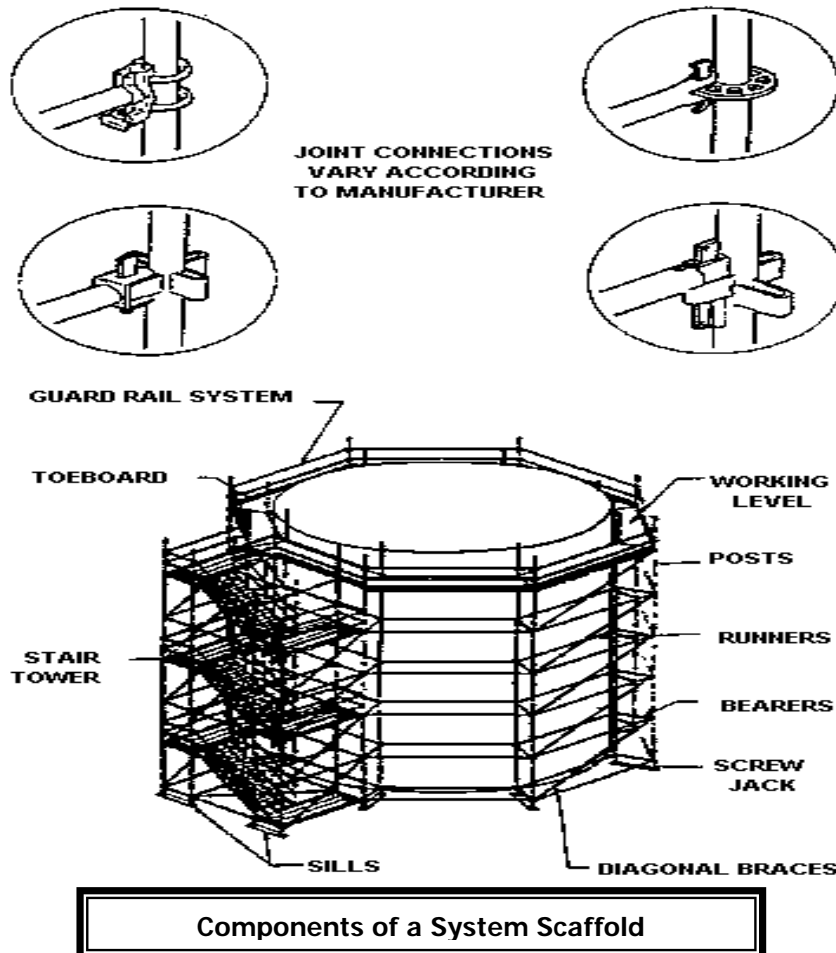
**Components for two point suspended scaffold**



D. Boatswain chair: Consisting of seat platform, rigging and lifting device



E. System scaffold: Consisting of posts with fixed connection points that accept runners, bearers, and diagonal braces that can be interconnected at predetermined levels.



**TRAINING**

1. Scaffold User training will be performed by the Competent Person to each employee who performs work while on a scaffold.
2. The training will include the following topics as applicable:
  - A. The proper use of the scaffold, and the proper handling of materials on the scaffold.
  - B. The maximum intended load and load carrying capacities of the scaffolds used.
  - C. The nature of any overhead work and falling objects.
  - D. Electrical hazards in the work area, and; the correct procedures for dealing with electrical hazards.
  - E. The proper use of personal fall protection equipment and fall protection systems.
3. Retraining is required when:
  - A. There are changes in the types of scaffolds, fall protection, falling object protection or other equipment or procedures related to the hazards associated with site scaffolding.
  - B. Changes in the worksite present new hazards to which the Employee has not been previously trained.
  - C. An Employee demonstrates a lack of skill, understanding or where inadequacies in an affected Employees work involving scaffolds indicates that the Employee has not retained proficiency.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

20.1.1 Scaffold Inspection Checklist



## Scaffold Inspection and Checklist

Project: \_\_\_\_\_ Project Number: \_\_\_\_\_

Inspection Date: \_\_\_\_\_ Location of Scaffold: \_\_\_\_\_

General Inspection Requirements	Yes	No	N/A
Scaffold work platform full planked, with less than 1 inch between planks			
Are working and walking platforms at least 18 inches wide			
Are all platforms protected by an approved guardrail system or will all employees have personal fall arrest systems			
Are open sides of scaffolds less than 14 inches from the face of the work			
Open sides greater than 14 inches requires a fall arrest system			
Platform boards or planks cleated, restrained by hooks or equivalent means, or extended over their supports by a minimum of 6 inches			
Are abutted planks resting on separate supports			
Are planks that overlapped are they lapped over at the supports			
Are overlapped planks at least 12 inches and secured.			
Does the scaffold meet the 4 to 1 base to height ratio requirement			
Scaffolds that do not meet the 4 to 1 base to height ratio must be secured by ties			
Has the tie been installed at a horizontal member that supports the inner and outer legs			
Has the first tie been installed at a height less than 4 times the minimum base dimension.			
Have vertical ties been repeated every 20 feet or less for scaffolds that are 3-feet or less in width.			
Have ties been repeated every 26 feet on scaffolds wider than 3 feet.			
Are ties installed at horizontal distances of 30 feet or less.			
Do scaffolds have adequate footing.			
Is scaffold plumb and braced to prevent swaying.			
Has a safe means of access been provided			
Have toe boards been installed and meet the 3 ½ inch requirement.			
Frame Scaffolding	Yes	No	N/A
Are frames secured by braces which secure the vertical members laterally (crossways)			
Do braces square and align the frames.			
Are brace connections secure.			

Are frames joined together by coupling pins or equivalent means.			
Where uplift may occur are frames locked together.			
<b>Mobile Scaffolding</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
Are frames secured by braces which secure the vertical members laterally (crossways)			
Do braces square and align the frames.			
Are all brace connections secure			
Are casters in good condition			
Are wheel locks serviceable			
Are casters locked during use			
Are casters pinned into the frame			
Is manual force used to move the scaffold applied to the base of the scaffold			
Are scaffolds stabilized to prevent tipping			
<b>Tube and Coupler Scaffolds</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
Are X bracing installed on the ends of the scaffold and every third set of posts horizontally and every fourth runner vertical.			
Are ties installed at the bearer level			
Is longitudinal (lengthwise) bracing installed at a 45-degree angle on both sides of the scaffold.			
Does the longitudinal bracing extend from the bottom left hand post to the top of the scaffold			
If the scaffold is longer than five posts, is a new line of bracing begun at every fifth post.			
Longitudinal bracing should be installed as close as possible to the intersection of the vertical post and the bearer post.			
Bearer should have full contact with clamps.			
Bearer tubes should be as close as possible to vertical posts.			
Runner should be installed on both sides of the scaffold at 6-foot intervals.			
Bottom runners should be as close as possible.			
Runners should be interlocked with the vertical posts.			

## Respiratory Protection Program

### PROGRAM STATEMENT

Employees will be provided protection from occupational exposure when a potential hazard exists from dusts, fumes, mists, toxic gases, vapors and oxygen deficiency.

### DEFINITIONS

1. **Competent Person:** One who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are hazardous or dangerous to employees and who is authorized to take prompt corrective measures to eliminate the hazard or remove the employee from the hazard.
2. **Qualified Person:** A person by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated their ability to solve or resolve problems relating to the subject matter.
3. **Safety Trained:** An employee trained by a competent person to recognize the hazards associated with respirators and respiratory protection.

### RESPONSIBILITIES

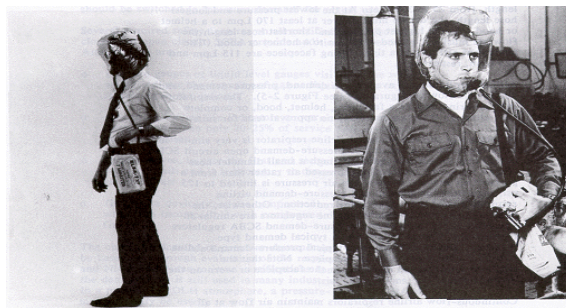
1. **Employee**
  - A. Shall adhere to the program requirements and use "Stop Work Authority" when a suspected hazard exists
  - B. Shall choose the style of respirator that feels and fits appropriately, it shall meet or exceed the respiratory protection requirements for the hazard
2. **Supervisor**
  - A. Shall ensure employee training prior to starting any task requiring respiratory protection
  - B. Shall adhere to program requirements
3. **Safety**
  - A. Shall provide training and support upon request
  - B. Perform routine inspections

### DEFINITIONS

1. **Air-purifying respirator:** A respirator with a filter, cartridge or canister that removes specific contaminants by passing ambient air through the purifying element.



2. **Ambient air:** The air (atmosphere) around you.
3. **Atmosphere-supplying respirator:** A respirator that supplies the user with breathing air from a source independent of the ambient atmosphere.



4. **Breakthrough:** The penetration of contaminants through the purifying element.

5. Canister or cartridge: A container with a filter, absorbent or catalyst, or a combination of these items, which removes specific contaminants from the ambient air that passes through the container.
6. Disposable respirator: A respirator that is discarded after its recommended period of use.
7. Dust: A solid mechanically produced particle with a size ranging from submicroscopic to microscopic.
8. End-of-service-life indicator (ESLI): A system that warns the user of the approach of the end of adequate respiratory protection.
9. Escape only respirator: A respirator intended to be used only for emergency egress.
10. Filtering face piece (dust mask): A negative pressure particulate respirator with a filter as an integral part of the face piece, or with the entire face piece composed of the filtering media.



11. Fit test: The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.
12. Fume: A solid condensation particulate, usually of a vaporized metal.
13. Gas: An aerial-form fluid is in a gaseous state at standard temperature and pressure.
14. High efficiency particulate air (HEPA) filter: A filter that is at least 99.97% efficient in removing particles of 0.3 micrometers in diameter.
15. Immediately dangerous to life and health (IDLH): An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
16. Loose fitting respirator: Hoods, helmets are flexible coverings that enclose at least the head and neck.



17. Milligrams per cubic meter (mg/m<sup>3</sup>): Unit used to measure air concentrations of dusts, gases, mists and fumes.
18. Mist: A liquid condensation particulate.
19. Negative pressure respirator (tight fitting): A respirator in which the air pressure inside the face piece is lower (negative) during inhalation with respect to the ambient air pressure outside the mask.
20. National Institute for Occupational Safety and Health (NIOSH): A Federal agency that conducts research on health and safety concerns, tests and certifies respirators.
21. Oxygen deficient atmosphere: An atmosphere with oxygen content below 19.5% by volume.
22. Parts Per Million (PPM): Parts per million of air by volume of vapor, gas or other contaminants. Used as a unit of measurement for contaminant concentration.
23. Permissible exposure limit (PEL): The concentration of air contaminants to which Employees may be repeatedly exposed eight (8) hours a day, forty (40) hours a week, over a working lifetime (30 years) without adverse health effects. A legal mandate.

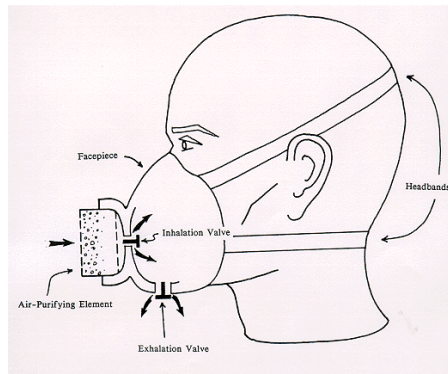
24. Planned or unplanned entry into an IDLH (Immediately dangerous to life and health) environment, of known or unknown concentrations of a hazardous contaminant: A situation in which respiratory devices are recommended to provide adequate protection to workers entering an area where the contaminant concentration is above the IDLH (Immediately dangerous to life and health) or is unknown.
25. Positive pressure respirator: A respirator in which the pressure inside the face piece is greater (positive) than the ambient air pressure outside the face piece.
26. Power air-purifying respirator (PARP): An air-purifying respirator that uses a blower to force ambient air through the air-purifying element to the face piece.
27. Qualitative fit test (QLFT): A pass/fail test to assess the adequacy of respirator that relies on the individual's response to the test agent.
28. Quantitative fit test (QNFT): An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
29. Respirator: Functionally, a respirator is designed as an enclosure that covers the nose and mouth or the entire face or head. The purpose of a respirator is to prevent the inhalation of harmful airborne substances.
30. Self-contained breathing apparatus (SCBA): An atmosphere supplying respirator for which the breathing air source is designed to be carried by the user.



31. Service life: The period of time that a respirator, filter or absorbent provides adequate protection to the user.
32. Supplied air respirator (SAR) or airline respirator: An atmosphere-supplying respirator that the source of breathing air is not designed to be carried by the user.



33. Tight fitting face piece: A respirator inlet covering that forms a complete seal with the user's face.



- 34. Threshold Limit value (TLV): A concentration under which most people can work consistently for 8 hours a day, day after day, with no harmful effects.
- 35. User seal check: An action by the respirator user to determine if the respirator is properly seated to the face.
- 36. Ventilation: The process of continuously moving fresh uncontaminated air through the work area
- 37. Vapor: The gaseous state of a substance that is solid or liquid at temperatures and pressures normally encountered.

**PROGRAM REQUIREMENTS**

## 1. Respiratory Protection

- A. Using respiratory protection is to be your last resort. The Safety Department must conduct a detailed hazard evaluation of your job site and determine that other preferred preventive measures cannot be implemented; this includes filtering face piece (dust mask).
- B. Where reasonable, exposure to contaminants at concentrations presenting a potential health hazard will be eliminated by:
  - I. Engineering controls:
    - 1) Purging: A process by which a space is initially cleared of contaminants by displacing the hazardous atmosphere.
    - 2) Ventilation
  - II. Material substitution: Replacing products with a less toxic version.
  - III. Administrative controls:
    - 1) Relocation of work area to a less toxic atmosphere.
    - 2) Rotation of employees in the work area to assure they do not exceed the permissible exposure level of the contamination of concern.
- C. If this is not reasonable, the use of personal respiratory protective equipment will be required.
- D. Before an employee is fit tested or required to use a respirator in the workplace a medical evaluation or a medical examination will be completed to determine the Employee's ability to use a respirator.
- E. Medical examinations will include any medical tests, consultations, or diagnostic procedures that the physician or other licensed health care professional feel is necessary to determine an Employee's ability to use a respirator.
- F. The Safety Department will make final determination on the Employee's ability to use a respirator.
- G. All respirators in use must be approved by the National Institute of Occupational Safety and Health (NIOSH 42 CFR Part 84).
- H. When higher levels of respiratory protection are needed, quantitative or qualitative fit testing must be conducted. The type of fit testing required will be determined by Safety Department.
- I. Any face mask (full or half) designed to have a tight seal along the face must be fit-tested, whether it is disposable or not.
- J. Only filtering face piece (dust mask) will be used by Wilkinson Electric Employees on a voluntary basis.

## 2. Inspection

The Supervisor shall ensure that respirators are inspected as follows:

- A. All respirators used in routine situations shall be inspected before each use and during cleaning.
- B. All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations and shall be cleaned and checked for proper function after each use.
- C. Emergency escape-only respirators shall be inspected before being carried into the workplace for use.
- D. The Qualified Person shall ensure that respirator inspections include the following:
  - I. A check of respirator function.
  - II. Tightness of connections.
  - III. The condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters.
  - IV. A check of elastomeric parts for pliability and signs of deterioration.
  - V. Cleaned and sanitized according to manufacturer's recommendations after each use.
- E. Self-contained breathing apparatus must be inspected before each use by a Qualified Person.
- F. All breathing air cylinders will have a current Department of Transportation (DOT) hydrostatic test date stamped on or attached to the cylinder.
  - I. Steel or aluminum cylinders 5-year intervals.
  - II. Composite cylinders 3-year intervals.
- G. Air cylinders will be maintained in a fully charged state and will be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level, with grade D breathing air.
- H. The Qualified Person must determine that the regulator and warning devices function properly.
- I. For respirators maintained for emergency use, the Qualified Person will inspect monthly.



- I. Certify the respirator by documenting the date the inspection was performed.
  - II. Printed name and signature of the person who made the inspection.
3. Breathing Air Quality
- A. Air supply must be free of harmful quantities of contaminants, and meet specification for
  - B. Grade D Breathing Air as described in the Compressed Gas Association Publication G-7
  - C. 1988: Compressed Air for Human Respiration.
  - D. Compressed oxygen must not be used in supplied-air respirators or in open circuit self-contained breathing apparatus. Oxygen must never be used with airline respirators.
  - E. Breathing air may be supplied to respirators from cylinders or air compressors. Cylinders must have a dated label/sticker affixed to them indicating "Certified Breathing Air" or equivalent.
  - F. If used, a breathing air type compressor must be situated so as to avoid entry of contaminated air into the system.
    - I. An alarm must also be installed to indicate imminent compressor failure and/or overheating.
    - II. If an oil-lubricated compressor is used, it must have a high-temperature or carbon monoxide alarm or automatic shutdown control feature.
  - G. Oil lubricated air compressors should have a continuous carbon monoxide (CO) monitor with both audible and visual alarms. However, if this is not possible, then program CO testing must be performed and documented at least twice daily; once at beginning of job, and once after lunch break.
  - H. In-line air purifying sorbent filters with water traps must be installed between the compressor and user(s).
  - I. Employees are instructed to stop work immediately if they experience difficulty in breathing, smell any unusual odors, or experience an ill feeling such as a headache or upset stomach, etc. and report the situation to the Competent Person.
4. Storage
- A. All respirators must be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they must be packed or stored to prevent deformation of the face piece and exhalation valve.
  - B. If Emergency respirators are required, they must be:
    - I. Kept accessible to the work area.
    - II. Stored in compartments or in covers that are clearly marked as containing emergency respirators.
    - III. Stored in accordance with any applicable manufacturer instructions.
5. Medical evaluation procedures
- A. Before an Employee is fit tested or required to use a respirator in the workplace a medical evaluation or a medical examination will be completed to determine the Employee's ability to use a respirator. Medical examinations shall include any medical tests, consultations, or diagnostic procedures that the physician or other licensed health care professional (PLHCP) deems necessary to make final determination on the employee's ability to use a respirator.
  - B. A physician or other licensed health care professional will perform all respirator user medical evaluations. The Employee must complete the OSHA Medical Questionnaire for Respirator Users, which is forwarded to a Division designated physician for a written determination of the Employee's ability to use the selected respirator, under defined working conditions.
    - I. All respirator users will answer questions 1 thru 15 on the questionnaire.
    - II. Every Employee who will be using a Self-Contained Breathing Apparatus (SCBA) and has a positive response to any item in questions 10 through 15 of Part A, section 2 will be provided a medical examination.
  - C. If a post-offer or annual physical is required and conducted, it may be used to meet the requirements of this section if it includes the same information as the OSHA Medical Questionnaire for Respirator Users.
  - D. The medical questionnaire and examinations must be administered confidentially during the Employee's normal working hours or at a time and place convenient to the Employee. The medical questionnaire will also be administered in a manner that ensures that the employee understands its content.
  - E. The Employee must be provided an opportunity to discuss the questionnaire and/or examination results with the physician or other licensed health care professional.
  - F. Any Employee, who refuses to be medically evaluated, as required for respirator use, will not be allowed to use a respirator.
  - G. A follow-up medical examination shall be provided for any Employee who gives a positive response to any of Questions 1 through 8 in Part A, Section 2 of the Questionnaire, or whose initial medical examination demonstrates the need for a follow-up medical examination.
  - H. Supplemental information concerning the specific type(s) of respirator to be used and the anticipated working conditions shall be provided to the physician or other licensed health care professional, with each

Respirator Medical Evaluation Questionnaire, before the physician or other licensed health care professional makes a recommendation concerning an Employee's ability to use a respirator.

- I. A copy of the OSHA Respiratory Protection standard and a copy of the Division's site specific written Program must also be provided to the physician or other licensed health care professional.
6. Medical Determination
    - A. Following the evaluation and/or examination, the physician or other licensed health care professional must provide a written recommendation regarding the Employee's ability to use the respirator. The recommendation must provide the following information:
      - I. Any limitations on respirator use related to the medical condition of the Employee.
      - II. Any limitations relating to the workplace conditions in which the respirator will be used.
      - III. Including whether or not the Employee is medically able to use the respirator.
      - IV. The need, if any, for follow-up medical evaluations.
      - V. A statement that the physician or other licensed health care professional has provided the Employee with a copy of the physician or other licensed health care professional's written recommendation.
    - B. For negative pressure respirator work, if the physician or other licensed health care professional finds a medical condition that may place the Employee's health at increased risk, a powered air-purifying respirator (PAPR), or equivalent, can be provided with restrictions. The restriction being if the physician or other licensed health care professional's medical evaluation finds that the Employee can use such a respirator.
    - C. If an Employee is wearing a powered air-purifying respirator because of medical restrictions and if a subsequent medical evaluation finds that the Employee is medically able to use a negative pressure respirator, then there is no longer a requirement to provide a powered air-purifying respirator.
  7. Additional Medical Evaluations / Examinations
    - A. An additional medical evaluation and/or examination will be necessary if:
      - I. An Employee reports medical signs or symptoms that are related to ability to use a respirator.
      - II. A physician or other licensed health care professional and Safety Department will determine that an Employee needs to be re-evaluated.
      - III. Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for Employee re-evaluation.
      - IV. A change occurs in workplace conditions (e.g., physical work effort, protective clothing, and temperature) that may result in a substantial increase in the physiological burden placed on the Employee utilizing a respirator
  8. Respirator Selection
    - A. Respirators that will ensure the health of the Employee is protected will be provided as needed. Respirator selection for routine tasks will be determined through evaluation of existing Manufacturer data.
    - B. For protection against gases and vapors the Division will provide:
      - I. An atmospheric supplying respirator.
      - II. An air-purifying respirator that is equipped with an end-of-service-life indicator certified by National Institute for Occupational Safety and Health (NIOSH) for the contaminant.
      - III. An air-purifying respirator and a change schedule for canisters or cartridges that is based on objective information or data that will ensure change out before the end of their service life.
    - C. Particulate filter cartridge Types N (Non-oil proof), R (oil resistance) and P (oil proof) refer to standard performance designations established by National Institute for Occupational Safety and Health. Individual manufacturers may have different designations.
    - D. To aid in decision-making on the appropriate type of respirator, individual manufacturer literature will also be used.
    - E. Currently only a few cartridge end-of-service-life indicators are National Institute for Occupational Safety and Health certified. Professional judgment is required to establish service life limits based on contaminant chemical, physical and toxicological properties, estimated contaminant concentrations, exposure patterns and contaminant warning properties. Cartridge manufacturer references can also be used as guidance in this evaluation.
    - F. For chemicals with odor thresholds above acceptable exposure limits Permissible Exposure Limit (PEL) or Threshold Limit Value (TLV), chemical cartridges will not be used. Also, certain compounds exhibit relatively poor absorption capacity and service life must be restricted, e.g., one use only or partial shift, depending on site conditions. Examples of chemicals in this category are:
      - I. Ethanol, propane and other light alcohols
      - II. Ethyl chloride, chloropropane and other light monochlorohydrocarbons
      - III. Chloroform, methyl chloride and other light trichlorohydrocarbons
      - IV. Methyl acetate and other light acetate compounds



- V. Acetone and other light ketones
  - VI. Hexane and other light alkanes
  - VII. Methylamine, dimethylamine and other light amines
  - VIII. Methyl iodide
  - IX. Acrylonitrile
9. Immediately Dangerous to Life or Health atmospheres (IDLH)
- A. Employees are not permitted to work in oxygen deficient (19.5% or less by volume) atmospheres or in areas with chemical concentrations potentially above immediately dangerous to life or health (IDLH) levels unless prior approval is obtained from the Safety Department.
  - B. Examples of jobs that are or could become immediately dangerous to life or health (IDLH):
    - I. Breaking into flare lines.
    - II. Initial opening of all hydrogen sulfide (H<sub>2</sub>S) or carbon monoxide (CO) equipment vessels/ lines.
    - III. Working near reactors/vessels having used catalyst.
    - IV. Confined space entry work where inert gas may be present.
    - V. Working in certain process or sanitary sewers.
  - C. When work tasks are to be performed in immediately dangerous to life or health (IDLH) atmospheres a full-face piece pressure demand Self Contained Breathing Apparatus (SCBA), rated for a minimum service life of 30 minutes or a supplied airline respirator with egress bottle is required.
  - D. Trained rescue standby person(s) will be equipped with and do the following:
    - I. Located outside the immediately dangerous to life or health (IDLH) area.
    - II. Equipped with a full-face piece pressure demand Self Contained Breathing Apparatus (SCBA) or as an alternate a full-face piece pressure demand supplied-air respirator with airline on separate supply (this option must include an auxiliary egress bottle). This includes work in confined spaces that require airline respiratory protection (for other than nuisance odor or nuisance dust.)
    - III. Appropriate retrieval equipment (harnesses, wristlets, anklets) for removing an employee from the hazardous atmosphere.
  - E. Retrieval equipment must be used unless it would increase the overall risk of rescue. Situations may exist in which retrieval line would pose an entanglement problem, especially if airlines and electrical cords are present.
  - F. It must also be ensured that visual or signal line communication is maintained between the Employee(s) in the immediately dangerous to life or health (IDLH) atmosphere and the Employee(s) located outside the immediately dangerous to life or health (IDLH) atmosphere.
  - G. The designated Rescue Team will be notified before the Employee(s) located outside the immediately dangerous to life or health (IDLH) atmosphere enter the immediately dangerous to life or health (IDLH) atmosphere to provide emergency rescue.
  - H. Standby personnel will notify the rescue team immediately in case of emergency and/or rescue is necessary.
10. Fit Testing Procedures
- A. Persons performing Qualitative or Quantitative Fit Tests will be qualified to fit test the respirator by the manufacturer of the respirator or by recognized training provider and designated by the Safety Department.
  - B. Each respirator wearer will be fit-tested on each specific (model, size) respirator worn prior to initial use.
  - C. Spectacles (glasses), goggles, face shields, or welding helmets must be worn in a manner that does not interfere with the face piece seal of the respirator.
  - D. Contact lenses (soft and gas permeable only) may be worn with full-face respirators.
  - E. Employees must be clean-shaven. Facial hair must not come between the sealing surface of the face piece and the face or interfere with valve function.
  - F. User seal checks are performed each time the respirator is donned and prior to entering a hazardous atmosphere both checks must be performed.
    - I. Negative-pressure check: Cover the filter cartridges or breathing tube with your hands and inhale deeply and hold for approximately 10 seconds, if the mask collapses slightly and stays collapsed the mask is adjusted properly.
    - II. Positive-pressure check: Cover the exhalation valve with your hand and breathe out gently, if the wearer feels the respirator puff up slightly it is properly adjusted.
  - G. The Employee will be allowed to pick the most acceptable respirator from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
  - H. Prior to the selection process, the Employee will be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror will be available to assist the employee in evaluating the fit and positioning of the respirator. This instruction does not constitute the Employees formal training in total, as it is only a review.

- I. The Employee will be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.
- J. The Employee must be instructed to hold each chosen face piece up to the face and eliminate those that obviously do not give an acceptable fit.
- K. The more acceptable face pieces are noted in case the one selected proves unacceptable.
- L. The most comfortable mask is donned and worn at least five minutes to assess comfort. If the Employee is not familiar with using a particular respirator, then he/she must be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.
- M. Assessment of comfort will be made with the Employee, allowing adequate time to determine the comfort of the respirator.
- N. The Employee must conduct a user seal check as recommended by the respirator manufacturer. Before conducting the negative and positive pressure checks, the employee will be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another face piece must be selected and retested if the test subject fails the user seal check.
- O. The test cannot be conducted if there is any hair growth between the skin and the face piece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit must be altered or removed.
- P. If the Employee exhibits difficulty in breathing during the tests, he or she must be referred to the physician or other licensed health care professional (PLHCP) for a medical re-evaluation.
- Q. If the Employee finds the fit of the respirator unacceptable, they will be given the opportunity to select a different respirator and be re-tested.
- R. A tight-fitting Power air-purifying respirator (PAPR) can be fit tested simply by not turning the fan motor on.
- S. The respirator to be tested will be worn for at least 5 minutes before the start of the fit test.
- T. The fit test will be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use, which could interfere with respirator fit.

#### 11. Proper Respirator Use

- A. All respirators, filters, cartridges, and components used must be certified by National Institute for Occupational Safety and Health (NIOSH).
- B. Respirators will be worn where work is necessary in hazardous atmospheres and in accordance with all manufacturers' instructions.
- C. Respirators will be used only for the purpose intended and must not be modified in any way.
- D. Tight-fitting face piece respirators will not be permitted to be worn by Employees who have any condition that interferes with the face-to-face piece seal or valve function (such as facial hair).
- E. If an Employee wears corrective glasses or goggles or other personal protective equipment, the Supervisor will ensure that such equipment is worn in a manner that does not interfere with the face-to-face piece seal of the user.
- F. For all tight-fitting respirators, a user seal check (negative and positive) must be conducted each time the respirator is donned. Respirators that cannot be seal checked are not acceptable for use.
- G. The Competent Person must ensure that appropriate surveillance of work area conditions and degree of Employee exposure or stress is maintained. When there is a change in work area conditions or degree of Employee exposure or stress that may affect respirator effectiveness is observed, the continued effectiveness of the respirator(s) chosen must be re-evaluated.
- H. The Supervisor will ensure that employees can leave the work area:
  - I. To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use.
  - II. If they detect vapor or gas breakthrough, changes in breathing resistance or leakage of the face piece.
  - III. To replace the respirator or the filter, cartridge, or canister elements when vapor or gases breakthrough changes in breathing resistance, or leakage of the face piece. The respirator must be replaced or repaired before allowing the employee to return to the work area.
- I. Prior to use of any respirator, the following items must be visually inspected:
  - I. Tightness of connection
  - II. Condition of face piece
  - III. Head straps, valves and connecting tube
  - IV. Cartridge/Canisters
  - V. Elastic parts (for pliability)
  - VI. Respirator function
- J. Chemical cartridge respirator and Air Purifying Respirators provide protection against low levels of certain gases and vapors. Respirator canisters or cartridges shall be specifically selected for concentrations of

gases/vapors that may be encountered. They do not supply oxygen, are not for use in oxygen deficient atmospheres, and cannot be used in any atmosphere that is immediately dangerous to life or health. Employees will be trained to leave the area immediately, if odor is detected inside the mask. Air purifying respirators shall not be used for rescue or emergency work.

- K. A cartridge change-out schedule must be developed by the Competent Person if air-purifying respirators are required. If employees can smell or otherwise detect vapors inside the mask, or if difficulty breathing is experienced, the cartridges must be changed immediately.
- L. Particulate Filter Respirator provides protection against low levels of certain dusts/fumes. These masks do not supply oxygen and are not for use in oxygen deficient atmospheres. This type respirator shall not be used in any atmosphere that is immediately dangerous to life or health.
- M. Airline Respirator must not be used in any atmosphere that is immediately dangerous to life or health, including an oxygen deficient atmosphere, unless equipped with a self-contained escape air bottle. If using an escape bottle, user will ensure that air supply is sufficient to permit safe escape from work area.
- N. If the compressor is oil-lubricated, it must be equipped with high temperature and carbon monoxide alarms.
- O. In case of malfunction, Employees must leave the area immediately, and report the condition to their Supervisor and the Competent Person.
- P. An adequate supply of breathing air must be ensured by the installation of an air pressure gauge in the air supply system.
- Q. Self-Contained Breathing Apparatus (SCBA) is provided primarily for use in emergency response when spills, leaks, or other circumstances present breathing hazards. Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% (or below) of the manufacturer's recommended pressure level. The air supply is generally rated for 30 minutes. Heavy exertion and excitement will increase the breathing rate and deplete the air supply sooner. Employees must use the bypass only in the event of regulator failure and must leave the area immediately when the alarm indicates low air supply.

#### 12. Respirator Program Evaluation

- A. The Safety Department is responsible for conducting routine observations related to the effective selection, use, maintenance, storage and other aspects of this Program. Observations will be noted through the use of Observation Reports, Safety Sampling data, or documented routine safety inspections. Noted deficiencies must be corrected as soon as possible.
- B. Formal Program evaluations will also be conducted on a periodic basis by the Safety Department to address the overall effectiveness of the Program.

#### 13. Employee Voluntary Use of Respirators

- A. Employees will not wear air-purifying respirators with cartridges or canisters, or air supplied respirators unless a health hazard is present.
- B. Employees may voluntarily use a respirator, with the approval of both their Supervisor and the Safety Department
- C. Check with the Customers safety and health representative to insure the use of the type of selected respirator does not violate the customer's Division policies for voluntary respirator use.
- D. The Safety Department will evaluate requests for voluntary respirator use to determine if the Employee can perform the activities safely and respirator use will not in itself create a hazard.
- E. Only filtering face piece (dust mask) will be used on a voluntary basis.



- F. Respirators will be National Institute for Occupational Safety and Health (NIOSH) certified to protect against the contaminant of concern.

- G. Read and observe all instructions provided by the manufacture on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- H. Do not wear the respirator into atmospheres containing contaminants for which the respirator is not designed to protect against.
- I. Employee must keep track of their individual respirator so as not to use another employee's respirator.

**TRAINING**

The competent person and employee supervisor must ensure that each employee can demonstrate knowledge of at least the following prior to starting work:

1. Purpose for respiratory protection.
2. Nature, extent and effects of respiratory hazards to which the Employee may be exposed.
3. Limitations and capabilities of the respirator
4. Selection of respiratory protection for specific hazards
5. Instructions on adjusting the fit, including procedures for both positive and negative field fit checks.
6. Effective use of the respirator in emergency situations, including situations in which the respirator malfunctions.
7. Inspection, put on and remove, use, and check the seals of the respirator.
8. What the procedures are for maintenance and storage of the respirator.
9. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators and the training shall be conducted in a manner that is understandable to the Employee.
10. Retraining shall be administered when changes occur in the workplace or the type of respirator render previous training obsolete, or Inadequacies in the employee's knowledge or use of the respirator indicates that the employee has not retained the requisite understanding or skill.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 21.1 Voluntary Respiratory Protection – Appendix D
- 21.2 Medical Evaluation Questions
- 21.3 Respirator Fit-Test Record
- 21.4 Employee Acknowledgement

## Voluntary Respiratory Protection Appendix D to §1910.134

### Information for Employees using Respirators When Not Required under the Standard

#### Employee Acknowledgement

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers.

However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards.

If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

#### You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

This is to acknowledge that I have reviewed and will abide by the information provided and that I understand the limitations of the respirator provided or that of my own respirator. I also understand that I have been provided a respirator or using my own for **voluntary use only** in a **non-hazardous atmosphere**.

If conditions change, remove yourself from the area immediately and request management and safety assistance.

By signing below, it confirms that I understand all of the information provided and I understand the verbal training presented to me today.

Date: \_\_\_\_\_

Employee Name: \_\_\_\_\_

Employee Signature: \_\_\_\_\_



## OSHA Respirator Medical Evaluation Questionnaire (Mandatory) 1910.134 App C

Employee: \_\_\_\_\_

Can you read (circle one): **Yes No**

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or Field Manager must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

**Part A. Section 1. (Mandatory)** The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: \_\_\_\_\_ Job Title: \_\_\_\_\_
  2. Your name: \_\_\_\_\_ SSN: \_\_\_\_\_
  3. Your age (to nearest year): \_\_\_\_\_ Dept: \_\_\_\_\_
  4. Sex (circle one): Male Female
  5. Your height: \_\_\_\_\_ft. \_\_\_\_\_in.
  6. Your weight: \_\_\_\_\_lbs.
  7. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the area code): \_\_\_\_\_.
  8. The best time to phone you at this number: \_\_\_\_\_AM \_\_\_\_\_PM.
  9. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): **Yes No**
  10. Check the type of respirator you will use (you can check more than one category):
    - A. N, R or P disposable respirator (filter-mask, non-cartridge type only).
    - B. Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
  11. Have you every worn a respirator (circle one): **Yes No**
- If "yes," what type(s): \_\_\_\_\_

**Part A. Section 2. (Mandatory)** Questions 1 through 9 must be answered by every employee who has been selected to use any type of respirator (please circle or check "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month. **Yes No**

2. Have you ever had any of the following conditions?	Yes	No
A. Seizures (fits)	<input type="checkbox"/>	<input type="checkbox"/>
B. Diabetes (sugar disease)	<input type="checkbox"/>	<input type="checkbox"/>
C. Allergic reactions the interfere with your breathing	<input type="checkbox"/>	<input type="checkbox"/>
D. Claustrophobia (fear of closed-in places)	<input type="checkbox"/>	<input type="checkbox"/>
E. Trouble smelling orders	<input type="checkbox"/>	<input type="checkbox"/>

3. Have you ever had any of the following pulmonary or lung problems?	Yes	No
A. Asbestosis	<input type="checkbox"/>	<input type="checkbox"/>
B. Asthma	<input type="checkbox"/>	<input type="checkbox"/>
C. Chronic Bronchitis	<input type="checkbox"/>	<input type="checkbox"/>
D. Emphysema	<input type="checkbox"/>	<input type="checkbox"/>



3. Continued:

	Yes	No
E. Pneumonia		
F. Tuberculosis		
G. Silicosis		
H. Pneumothorax (collapsed lung)		
I. Lung cancer		
J. Broken ribs		
K. Any chest injuries or surgeries		
L. Any other lung problem you have been told about		

4. Do you *currently* have any of the following symptoms of pulmonary or lung illness?

	Yes	No
A. Shortness of breath		
B. Shortness of breath walking fast on level ground or walking up an incline		
C. Shortness of breath walking with other people at an ordinary pace on level ground		
D. Have to stop for breath walking at you own pace on level ground		
E. Shortness of breath washing or dressing your self		
F. Shortness of breath that interfaces with your job		
G. Coughing that produces phlegm (thick sputum)		
H. Coughing that wakes you early in the morning		
I. Coughing that occurs mostly when you are lying down		
J. Coughing up blood in the last month		
K. Wheezing		
L. Wheezing that interferes with your job		
M. Chest pain when you breathe deeply		
N. Any other symptoms that you think may be related to lung problems		

5. Have you *ever had* any of the following cardiovascular or heart problems?

	Yes	No
A. Heart attack		
B. Stroke		
C. Angina		
D. Swelling in your legs or feet (not caused by walking)		
E. Heart failure		
F. Heart arrhythmia (irregularly heart beat)		
G. High blood pressure		
H. Any other heart problem that you have been told about		

6. Have you *ever had* any of the following cardiovascular or heart symptoms?

	Yes	No
A. Frequent pain or tightness in your chest		
B. Pain or tightness in your chest during physical activity		
C. Pain or tightness in your chest that interferes with your job		
D. In the past two years, have you noticed your heart skipping or missing a beat		
E. Heartburn or indigestion that is not related to eating		
F. Any other symptoms that you think may be related to heart or circulation problems		

7. Do you *currently* take medication for any of the following problems?

	Yes	No
A. Breathing or lung problems		
B. Heart trouble		
C. Blood pressure		

8. If you've used a respirator, have you ever had any of the following problems? (If you've never used a respirator, check the following box  and go to question 9)

	Yes	No
A. Eye irritation		
B. Skin allergies or rashes		
C. Anxiety		
D. General weakness or fatigue		
E. Any other problem that interferes with your use of a respirator		

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: **Yes** or **No**



**Questions 10 to 15 must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA).**

For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you *ever lost* vision in either eye (temporarily or permanently): **Yes No**

11. Do you *currently have* any of the following vision problems? **Yes No**

A. Wear contact lenses		
B. Wear glasses		
C. Color blind		
D. Any other eye or vision problem		

12. Have you *ever had* an injury to your ears, including a broken ear drum: **Yes No**

13. Do you *currently have* any of the following hearing problems? **Yes No**

A. Difficulty hearing		
B. Wear a hearing aid		
C. Any other hearing or ear problem		

14. Have you *ever had* a back injury: **Yes No**

15. Do you *currently have* any of the following musculoskeletal problems? **Yes No**

A. Weakness in any of your arms, hands, legs or feet		
B. Back pain		
C. Difficulty fully moving your arms and legs		
D. Pain or stiffness when you lean forward or backward at the waist		
E. Difficulty fully moving your head up or down		
F. Difficulty fully moving your head side to side		
G. Difficulty bending at your knees		
H. Difficulty squatting to the ground		
I. Climbing a flight of stairs or a ladder, carrying more than 25 lbs.		
J. Any other muscle or skeletal problem that interferes with using a respirator		

**Part B:** Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen **Yes No**

2. If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions **Yes No**

3. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes or dust), or have you come into skin contact with hazardous chemicals. If "yes," name the chemicals if you know them: **Yes No**

4. Have you ever worked with any of the materials, or under any of the conditions: **Yes No**

A. Asbestos		
B. Silica (e.g., in sandblasting)		
C. Tungsten/cobalt (e.g., grinding or welding this material)		
D. Beryllium		
E. Aluminum		
F. Coal (for example, mining)		
G. Iron		
H. Tin		
I. Dusty environments		
J. Any other hazardous exposures		

5. List any second jobs or side businesses you have: \_\_\_\_\_

6. List your previous occupations: \_\_\_\_\_

7. List your current and previous hobbies:

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8. Have you been in the military services? **Yes No**

9. If "yes," were you exposed to biological or chemical agents (either in training or combat): **Yes No**

10. Have you ever worked on a HAZMAT team? **Yes No**

11. Other than medications for breathing and lung problems, heart trouble, blood pressure and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): **Yes No**

If "yes," name the medications if you know them:

---

12. Will you be using any of the following items with your respirator(s)? **Yes No**

	Yes	No
A. HEPA filters		
B. Canisters (for example, gas masks)		
C. Cartridges		

13. How often are you expected to use the respirator(s) **Yes No**

	Yes	No
A. Escape only (no rescue)		
B. Emergency rescue only		
C. Less than 5 hours per week		
D. Less than 2 hours per day		
E. 2 to 4 hours per day		
F. Over 4 hours per day		

14. During the period you are using the respirator(s), is your work effort:

- A. Light (less than 200 kcal per hour) : **Yes No**  
 If "yes" how long does this period last during the average shift: \_\_\_\_\_ hrs. \_\_\_\_\_ mins.  
 Examples of a light work effort are 4 while writing, typing, drafting, or performing light assembly work; or *standing* while operating a drill press (1-3 lbs.) or controlling machines.
- B. Moderate (200 to 350 kcal per hour): **Yes No**  
 If "yes," how long does this period last during the average shift: \_\_\_\_\_ hrs. \_\_\_\_\_ mins. Examples of moderate work effort are *sitting* while nailing or filing; *driving* a truck or bus in urban traffic; *standing* while drilling, mailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; *walking* on a level surface about 2 mph or down a 5-degree grade about 3 mph; or *pushing* a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.
- C. Heavy (above 350 kcal per hour): **Yes No**  
 If "yes," how long does this period last during the average shift: \_\_\_\_\_ hrs. \_\_\_\_\_ mins.  
 Examples of heavy work are *lifting* a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; *shoveling*; *standing* while bricklaying or chipping castings; *walking* up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

15. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: **Yes No** If "yes," describe this protective clothing and/or equipment: \_\_\_\_\_

---

16. Will you be working under hot conditions (temperature exceeding 77 deg. F): **Yes No**

17. Will you be working under humid conditions: **Yes No**

18. Describe the work you'll be doing while you're using your respirator(s):

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19. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

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20. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Toxic Substance	Estimated Maximum Exposure Level Per Shift	Duration of Exposure Per Shift

21. The name of any other toxic substances that you'll be exposed to while using your respirator:

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22. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

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## RESPIRATOR FIT-TEST RECORD

[63 FR 1152, Jan. 8, 1998; 63 FR 20098, April 23, 1998]

Employee Name: \_\_\_\_\_ Employee ID Number: \_\_\_\_\_

Department/Division: \_\_\_\_\_ Last Medical Exam Date: \_\_\_\_\_

Respiratory Protection Training: Selection, Use, Inspection, Cleaning, Maintenance and Storage  Yes  No

Isoamyl acetate order recognition  Yes  No

Irritant smoke recognition  Yes  No

Equipment	Respirator 1	Respirator 2	Respirator 3
Equipment type	Pass Fail	Pass Fail	Pass Fail
Manufacturer name	Pass Fail	Pass Fail	Pass Fail
Model	Pass Fail	Pass Fail	Pass Fail
Size	Pass Fail	Pass Fail	Pass Fail
Face piece composition (rubber/ silicone)	Pass Fail	Pass Fail	Pass Fail
<b>Test performed</b>	<b>Respirator 1</b>	<b>Respirator 2</b>	<b>Respirator 3</b>
Negative pressure	Pass Fail	Pass Fail	Pass Fail
Positive pressure	Pass Fail	Pass Fail	Pass Fail
Isoamyl acetate vapor	Pass Fail	Pass Fail	Pass Fail
Irritant smoke	Pass Fail	Pass Fail	Pass Fail

The individual named above has been fit-tested according to the procedures specified in this program adapted from OSHA 29 CFR 1910.134 and 1926.103.

\_\_\_\_\_  
Examiner's Name (printed)

\_\_\_\_\_  
Examiner's Signature

\_\_\_\_\_  
Employee's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Medical Facility

\_\_\_\_\_  
Phone Number









## Drug-Free Workplace Program

### PROGRAM STATEMENT

Wilkinson Electric (or the "Company") is committed to providing a safe and drug-free work environment for our employees and customers. Employees working while impaired by drugs or alcohol expose themselves and others to serious safety and health risks. To ensure the health and safety of our employees and customers, the company has established this Drug-Free Workplace Program. The company reserves the right to modify this program as well as the practices and procedures relating to this program and Division Prohibited Substances Testing Procedures. Any employee who violates this program will be subject to discipline, up to and including termination. To the extent any provisions of this Program conflict with state law where an employee is working, state law shall control.

### DEFINITIONS

1. Company Premises includes all buildings, offices, facilities, grounds, parking lots, lockers, places and vehicles owned, leased or managed by Wilkinson Electric or on any site on which the company is conducting business.
2. Illegal drug – a substance whose use or possession is controlled by federal law but that is not being used or possessed under the supervision of a licensed health care professional. (Controlled substances are listed in Schedules I-V of 21 C.F.R. Part 1308.)
3. Refuse or Refusal - to obstruct the collection or testing program; to submit an altered, adulterated or substitute sample; to fail to show up for a scheduled test; to refuse to complete the requested drug testing forms; or to fail to promptly provide specimen(s) for testing when directed to do so, without a valid medical basis for the failure. Employees who leave the scene of an accident without justifiable explanation prior to submission to drug and alcohol testing will also be considered to have refused to cooperate and will automatically be subject to discharge.
4. Under the Influence – specimen tested positive for drugs and/or alcohol
  - A. Alcohol concentration equal to or greater than .02, or
  - B. Actions, appearance, speech or bodily odors that reasonably cause a supervisor to conclude that an employee is impaired because of alcohol use
  - C. Confirmed positive test result for illegal drug use per this program
  - D. Misuse of legal drugs (prescription and/or OTC) when there is not a valid prescription from a physician for the lawful use of a drug in the course of medical treatment (containers must include the patient's name, the name of the substance, quantity/amount to be taken and the period of authorization)
5. Employee Assistance Program (EAP) The Agency-based counseling program that offers assessment, short-term counseling, and referral services to employees for a wide range of drug, alcohol, and mental health problems, and monitors the progress of employees while in treatment. HR is responsible for implementing and operating the EAP.
6. Medical Review Officer (MRO) – licensed physician employed with or contracted with Wilkinson Electric, who has knowledge of substance abuse disorders, laboratory testing procedures, and chain of custody collection procedures; who verifies positive, confirmed test results; and who has the necessary medical training to interpret and evaluate an employee's positive test result in relation to the employee's medical history or any other relevant biomedical information
7. Prohibited Substances are alcohol, illegal drugs, THC/marijuana/cannabinoids or synthetic drugs, intoxicants, prescription drugs that are prescribed for someone else or used in a manner to cause impairment or any medications which indicate they may impair the person to the point that this person is not safe to work, drive, or operate machinery.

### RESPONSIBILITIES

1. Employee/Job-Offer Applicant
  - A. Shall adhere to program requirements for the term of employment
  - B. Shall report all drug convictions within 5 days of conviction
  - C. Shall submit a valid sample for drug-testing prior to employment, randomly and for cause
  - D. Shall notify Supervisor if prescribed medication may cause impairment according to the RX Label
  - E. Shall not operate any company vehicle, rental vehicle or motorized equipment while under the influence of alcohol or drugs; prescription or over-the-counter if the effects may cause impairment
2. Supervisor
  - A. Shall support and enforce program requirements
  - B. Shall use For-Cause / Reasonable Suspension after consulting HR and Safety

### PROGRAM REQUIREMENTS

1. Prohibited Behavior

- A. The company explicitly prohibits possessing, using, distributing, manufacturing, selling, soliciting or being under the influence of *Prohibited Substances* while on duty or on the Company or its customers' premises.
  - B. Use or possession of drug paraphernalia also is prohibited.
2. Prescription and Over-The-Counter Medications
    - A. Employees taking prescription medications which may adversely impact the employee's ability to fully and safely perform their job must have a clearance from their doctor before they will be allowed to work.
    - B. If an employee is taking an over the counter medication that may impair his or her ability to work, that employee must notify their Supervisor of the type of medication in use.
    - C. The employee shall not provide the reasons for the medication. All medications shall be used only in the manner indicated by prescription or over the counter medication instructions.
3. Testing Requirements and Methods
    - A. As a condition of employment, the Company requires all applicants and employees to submit to pre-employment, for cause (reasonable suspicion), post-incident, random, and where required, client-requested drug testing.
      - I. Pre-Employment Testing:
        - 1) All applicants who receive a job offer are required to complete a drug test as a condition of their hiring, and some may be required also to take an alcohol test if required by a client project for which employee is being hired.
        - 2) Any former employee who left the Company in good standing less than 60 days before re-applying for work is not required to undergo a Pre-Employment Test provided the initial work assignment is not for a federal or client contract requiring it.
        - 3) Applicants who refuse to take a pre-employment drug test or fail the test will be ineligible for employment.
        - 4) Such applicants may reapply for employment based on the Division Prohibited Substances Testing Procedures.
      - II. For-Cause Testing (reasonable suspicion):
        - 1) The Company may direct an employee to submit to a drug and alcohol test at any time it reasonably suspects the employee may be under the influence of a Prohibited Substance.
        - 2) Reasonable suspicion may be based on:
          - a) Evidence of Prohibited Substances or Paraphernalia on or near the employee or his/her workspace, behavior that suggests impairment, evidence of Prohibited Substance due to the employee's breath, body odor, speech or behavior patterns, substandard performance, unexplained absenteeism or tardiness or any other specific observation suggesting impairment or other violations of this program.
          - b) The determination of reasonable suspicion shall be based on specific observations or credible supported reports of observations.
        - 3) Managers are authorized to require a reasonable suspicion test after they have consulted with HR and/or Safety, and in cases involving more than one employee, the Legal Department.
          - a) The Company will train Managers, HR and Safety on recognizing signs of impairment.
          - b) The Company will document the basis for the reasonable suspicion test within 24 hours of the observed behavior or the test results, whichever is earlier.
          - c) Human Resources will maintain the documentation in the employee's medical file.
        - 4) Testing shall be done as soon as practical but no longer than 4 hours following determination of reasonable suspicion.
          - a) The Company may require reasonable suspicion testing at a time greater than four (4) hours with documentation explaining the expanded time period for testing.
        - 5) Employees tested for reasonable suspicion will not be permitted to work until the test has confirmed negative. Division Prohibited Substances Testing Procedures will determine disciplinary actions for positive results.
        - 6) At the Company's discretion it may conduct for-cause testing for multiple employees at the same time based on reasonable suspicion indicating more than one employee may be in violation of this program, following Legal review of the basis for reasonable cause.
      - III. Post-Incident Testing:
        - 1) Employees will be tested for alcohol and drugs if they
          - a) Are involved in an on-the-job injury or property damage incident;
          - b) Are involved in a preventable vehicle accident either while working for the company or in a company owned/leased vehicle; and/or
          - c) Receive a citation for possessing Prohibited Substances or Paraphernalia while working for the company or in a company owned/leased vehicle or are in a company owned/leased vehicle with an employee who receives such a citation.
          - d) Employees are required to report any of these incidents immediately to their supervisor.

- 2) Employees subject to post-incident testing shall remain readily available for testing or they will be deemed as having refused to submit to testing.
  - a) A post-incident test must be promptly administered within four (4) hours following the incident (unless it is confirmed law enforcement has tested the employee).
  - b) The Company will require post-incident testing at a time greater than four (4) hours with documentation explaining the expanded time period for testing.
- 3) Employees tested for post-incidents will be evaluated by Safety and Operations on whether they will be permitted to work until the test has confirmed negative.
  - a) Division Prohibited Substances Testing Procedures will determine disciplinary actions for positive results.

**IV. Random Testing:**

- 1) Employees are subject to drug testing on a random basis.
- 2) Each Division will determine specific procedures for random drug testing and applicable disciplinary actions, but in all cases the following program applies:
  - a) Employees are selected for testing by the company's third-party administrator using a computer-based random number generator.
  - b) Employees will be notified by HR that they have been selected for testing after they have reported for duty on the day of collection.
  - c) If selected for a random test, the employee must immediately report to a Company specified collection site and submit a sample for testing.
  - d) Employees who refuse to submit to a random test or fail to report to a Company specified collection site within 4 hours will be terminated unless the Division President has approved postponing the test for logistical reasons.
  - e) HR will document such postponements and the basis for suspension of the random test and submit the employee for an unannounced test on another date.

**V. Test Methods:**

- 1) Unless otherwise required, testing will be conducted by using a standard 5-panel or greater urine or saliva drug test and alcohol testing will be conducted using Evidential Breath Testing (EBT).
- 2) Some Divisions may have different or additional drug testing options.
- 3) See Division Prohibited Substance Testing Procedures.
- 4) A third-party administrator manages and handles all of the random selection, collection, testing, analysis, security and chain of custody of samples to be tested.
- 5) A third-party administrator provides the services of a qualified Medical Review Officer (MRO) to evaluate all test results.

**4. Confidentiality**

- A. The company will take all reasonable steps to keep the results of drug and alcohol tests confidential.
- B. Only Management individuals with a need to know will have access to results.
- C. Drug or alcohol test results will not be released to third parties without the employee's consent except if used in arbitration, administrative hearings and court cases arising as a result of the employee's drug testing discipline or termination or released to federal agencies if required by federal law.

**5. Test Results**

- A. If Company receives notice of a confirmed positive drug test or alcohol test (evidence of being under the influence of alcohol is any test showing .02 or higher), the employee shall immediately be removed from the job and suspended without pay until the employee is given the opportunity to discuss the positive result with the Medical Review Officer (MRO), if the employee has not already spoken with the MRO.
- B. Applicant job offers will be suspended pending applicant being given the opportunity to discuss the positive result with the MRO.
- C. After speaking with the MRO employees and applicants who tested positive and who believe the test results are incorrect will be notified by the MRO that they may request a second test of their testing specimen at his/her own expense within twenty-four (24) hours.
- D. A toxicologist of the MRO will review all data for a final determination.
- E. A test result that confirms that the specimen was adulterated or substituted will be treated as a positive test result.
- F. Employees who believe the test results showing the specimen was adulterated or substituted or are incorrect may request a retest in the same manner as retests for disputed positive results.
- G. A "negative dilute" test result will be considered a negative test result and will not require a recollection.
  - I. However, if the Medical Review Officer (MRO) recommends a recollection under direct observation based on the creatinine concentration, then the individual will be directed to take another test immediately.
  - II. If the recollection has a negative dilute result, then the test will be considered negative. A "positive dilute" test result will be considered a positive test result.

- H. If the confirmation screen for drugs or alcohol is negative, the employee's suspension will be lifted, and the employee will be permitted to return to work.
  - I. The company will reimburse the employee for the cost of the retest and any lost time that may have occurred.
- 3. Reporting of Drug and Alcohol Related Convictions
  - A. Employees convicted of drug offenses are required to notify the company's HR department no later than five (5) days after such conviction.
    - I. Convictions include nolo contendere or no contest pleas and deferred adjudication.
    - II. This may subject the employee to disciplinary action, up to and including termination
- 4. Consequences

Employees testing positive for a Prohibited Substance will be subject to discipline, up to and including termination of employment depending on their Division Prohibited Substances Testing Procedures.
- 5. Rehire Eligibility

Any Wilkinson Electric Division employee terminated for violation of the Drug-Free Workplace Program may reapply for employment 180 days after the date of termination and must complete all of the following conditions:

  - A. Test negative in a pre-return drug screen for all substances;
    - I. Sign an agreement to submit to unscheduled drug testing for a period of one (1) year (in addition to the employee's participation in the random drug testing pool);
    - II. Meet all other employment standards and requirements for the position; and
    - III. Meet any other requirements set forth in the employee's Division Prohibited Substances Testing Procedures.
    - IV. Individuals rehired under this program after being terminated for testing positive who fail a second drug screen will be subject to immediate termination and will be ineligible for future employment with the company.
- 6. Employee Assistance Program (EAP)
  - A. The company recognizes that substance abuse may be treated successfully and employees with a drug or alcohol problem are encouraged to request assistance by contacting HR or the company's EAP.
    - I. Employees who come forward and volunteer that they have a drug or alcohol problem prior to testing positive for a prohibited substance may be granted a leave of absence without pay within the guidelines of the company's leave of absence policy.
- 7. Commercial Motor Vehicle Operations (Dot Program)
  - A. As an Wilkinson Electric employee you may be required to operate various motor vehicles either owned or leased by the Company.
    - I. Some of these vehicles are classified as COMMERCIAL MOTOR VEHICLES (CMVs) and are regulated by the Federal Motor Carrier Safety Administration (FMCSA).
    - II. The FMCSA, a division of the U S Department of Transportation (DOT), is responsible for ensuring that all CMVs operating on public roadways meet Federal safety standards.
    - III. This agency also sets standards for the qualification and certification of CMV drivers.
    - IV. Employees who operate CMVs are subject to a federally mandated drug and alcohol testing program independent of the program adopted by the Company.
    - V. Your Safety representative will be able to explain the details of this program, the qualification program for CMV drivers, and the Wilkinson Electric DOT Drug/Alcohol Testing Program.
- 8. Program Review shall be at least once a year

**TRAINING**

- 1. Employee is made aware of the Wilkinson Electric Drug-Free Workplace Program during the onboarding process
- 2. Refresher training shall occur at least annually

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

22.1.1 Return to Work Eligibility Agreement

## Return to Work Eligibility Agreement

### Employees or Applicants with Previous Drug or Alcohol Test Failure

This agreement is entered into on \_\_\_\_\_ between \_\_\_\_\_ ("Employee") and Wilkinson Electric \_\_\_\_\_, Inc. ("Company").

Employee acknowledges their failure of Wilkinson Electric's Drug or Alcohol Test is in violation of the Wilkinson Electric Drug-Free Workplace Policy. To be allowed to return to employment with Wilkinson Electric, Employee agrees as follows:

Employee will be subject to individual unscheduled drug and/or alcohol testing for twelve (12) months following Employee's return to work, in addition to testing under any random drug testing program. Failure or refusal to take a test as directed by management, tampering with the test, or a positive test result will constitute a violation of this agreement and will result in immediate termination.

\_\_\_\_\_  
Employee Name

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



## Safety Inspections and Audit Program

### PROGRAM STATEMENT

Wilkinson Electric is committed to providing a safe work environment free of potential health and safety hazards. It is essential that management and all employees comply with Wilkinson Electric safety programs. Periodic audits, inspections and observations are necessary to assure all employees embrace safety and truly understand safety expectations and responsibilities while maintaining compliance during work operations.

### DEFINITIONS

1. Safety Inspection – careful examination of workers and project conditions to identify hazards and prevent injuries
2. Safety Audit – official review of project safety inspection requirements

### RESPONSIBILITIES

1. Supervisor
  - A. Shall follow all Safety Audit and Inspection Program requirements
  - B. Shall complete all Safety Audit and Inspection Reports in accordance with this program
2. Safety
  - A. Shall participate in Pre-Con Meeting to assist in completing the JHA
  - B. Shall complete a Safety Observation upon each visit to the project
  - C. Shall complete a Project Safety Inspection upon each visit to the project
  - D. Shall review Project Safety Score Cards

### PROGRAM REQUIREMENTS

1. Safety Observation (23.1.1)
  - A. Each Project supervisory employee will complete three (3) Safety Observations each week.
    - I. The observations will be documented by utilizing the Safety Reports Inc app.
    - II. If the app is in the process of being installed and not operational yet, it is permitted to manually complete form 23.1.1.
    - III. Manual forms are to be submitted to the Safety Department weekly
  - B. Each PM will complete a Safety Observation each time they visit the project. The observations will be documented by utilizing the Safety Reports Inc app.
  - C. Each Safety Department will complete a Safety Observations each time they visit a project. The observations will be documented by utilizing the Safety Reports Inc app.
  - D. Each week the Safety Department will collect the safety observation data report for the previous week from the Safety Reports Inc app along with any 23.1.1 forms that have been completed manually and review it with the General Manager (GM) during their Safety Department weekly safety meetings. The data will also be distributed monthly to the management staff of the location.
2. Project Safety Inspection (23.1.2)
  - A. All Project Supervisors will each week, complete a Project Safety Inspection on their project utilizing the Safety Reports Inc app.
    - I. If the app is in the process of being installed and not operational yet, it is permitted to manually complete form 23.1.2.
    - II. The Supervisor will send the inspections checklist utilizing the Safety Reports Inc app to the Supervisor and the Safety Department along with any pictures taken during the inspection.
  - B. Any discrepancy or non-compliant issue will be corrected or abated immediately and noted on the inspection checklist using the Safety Reports Inc app. Any manually completed forms will be submitted each week to the Safety Department.
  - C. Project Supervisors are responsible to assure all GFCI outlets that are part of the temporary power system are tested monthly in the manner recommended by the manufacturer and documented.
    - I. The Supervisor may designate this responsibility to a competent supervisor or a project safety coordinator
    - II. Supervisor is accountable to make sure it is completed as required and documented.
  - D. Safety Department is required to complete a Project Safety Inspection each time they visit a project walk through utilizing the Safety Reports Inc app.
    - I. A copy will be sent to the Supervisor, PM and Operations Manager utilizing Safety Reports Inc app.
3. Supervisor Weekly Safety Checklist (23.1.3)
  - A. A Supervisor Weekly Safety Checklist, form 23.1.3 is to be completed and submitted to the Project Manager each week. This information should assist the PM in the completion of their Project Safety Scorecard.



- B. This report will include the number of employees and temporary employees onsite, all incidents, e.g., near misses, first aid cases, recordable injuries, disciplinary actions and safety audits or inspections that occurred on the project for that week.
  - C. The topic(s) covered during the weekly toolbox safety meeting will be included in this report.
  - D. The Supervisor will sign the report and send a copy to the PM each week.
  - E. The Supervisor is not allowed to designate someone else to perform this safety report.
  - F. The Safety Department will review the Supervisor weekly safety reports during their monthly safety review with each Project Manager.
4. Project Safety Scorecard (23.1.4)
- A. Each PM is responsible to have and maintain a Project Safety Scorecard, form 23.1.4, for each of their projects.
  - B. The Safety Department will review the Project Safety Scorecard(s) during their monthly scheduled safety review with each PM
5. Pre-Construction JHA (23.1.5)
- A. The Safety Department is to participate in the Pre-Construction meeting for construction projects.
  - B. The Safety Department is to assist the Supervisor and PM to develop a Pre-Construction JHA, form 23.1.5, during this process.
    - I. The JHA should identify the potential hazards for the duration of the project when our employees would be exposed and corrective actions to prevent exposure.
  - C. The Pre-Construction JHA will be posted in the job trailer and the Supervisor will review it with each employee and temporary employee that reports to the project during the Project Safety Orientation process.
    - I. Each employee, temporary employee and visitors that visit the project construction site will review and sign off on the Pre-Construction JHA.
    - II. The documentation will remain on the project for review of the Safety Department and PM during their regular visits.
  - D. Projects that are set up as ongoing maintenance operations may be exempt from this document. Authorization for exemption must be agreed upon by the General Manager, Divisions Safety Manager, and the Division Safety Director.
6. Pre-Task Safety Plan (23.1.6)
- A. All supervisory employees will complete a Pre-Task safety plan, form 23.1.6 for use daily.
    - I. Pre-Task Safety Plan is to be reviewed prior to beginning any assigned tasks.
    - II. The Plan will be based on their immediate work area, as well as, any areas on the project, as a whole, that affect their crew.
    - III. Each supervisor will review the Pre-Task Safety plan with each member of their crew each morning before commencing work. Employees are to sign off on each Pre-Task Safety Plan to verify they have reviewed and understand.
    - IV. Upon completion and review with their crew, these plans will be submitted to the Supervisor responsible for the project.
    - V. The reports will remain in the work area during the operation covered by the PTSP.
    - VI. Once the activity is complete the PTSP will be closed out and stored onsite for review of the PM and Safety Department upon their project visits.
  - B. Items not associated with the crew's task will be marked "NA" showing that this part of the safety plan was not overlooked.
  - C. Items of concern not listed on the Pre-Task Safety Plan form should be written in "Additional Notes/Concerns" located at the bottom right section of the form.
  - D. It may be necessary to complete more than one form per day should there be a change in work tasks not addressed on the morning pre-task plan, e.g., a change in assignment, a new assignment, a change of location.
7. Interaction Weekly Meetings (23.1.7)
- A. Each week there will be a scheduled meeting between the General Manager and the Safety Department.
  - B. The Safety Department will be prepared using form (23.1.7) and update the GM on all current and any upcoming safety activities. The completed form will be placed in the designated Dropbox folder.
  - C. Any safety issues that have been identified will be discussed and the GM is expected to resolve any that need resolution.
  - D. If resolution does not occur the Safety Department is to contact their Region Safety Director immediately and discuss the issues and resolutions needed. The Region Safety Director will confer with the Wilkinson Electric President.



8. Project Posting Checklist (23.1.8)
  - A. The Safety Department will assure that each month an audit of the Project postings on each project is completed and the checklist completed utilizing the Safety Reports Inc app or by manually completing form 23.1.8.
  - B. If the Safety Department is unable for any reason to visit each project every month this audit can be delegated to another safety personnel, supervisory employee onsite or a job safety coordinator.
    - I. The checklist must be completed utilizing the Safety Reports Inc app or by manually completing form 23.1.8.
    - II. The Safety Department retains the responsibility and accountability to assure this is completed on each project every month and to address and correct any discrepancies.
  - C. A summary of compliance and copies of any completed form 23.1.8 will be submitted to the HR Manager each month.
9. Temporary Power Checklist (23.1.9)
  - A. Each week the Supervisor or a designated competent person shall inspect the electrical temporary power system and completed the Temporary Power Checklist on the Safety Reports app.
  - B. The competent person shall be documented as being a competent person on temporary electrical power systems. See the Safety Department to assure documentation.
  - C. If a competent person completes this task the completed report will be submitted via the Supervisor's Safety Reports app.
  - D. Upon completion of the checklist list, the Supervisor will forward a copy to the Safety Department and the Project Manager.
  - E. Any discrepancies will be corrected or abated immediately.
10. Program review shall be at least once a year.

**TRAINING**

1. Supervisors shall receive training on all safety inspection and audit responsibilities prior to initial assignment.
2. Refresher training shall be yearly or if an audit shows discrepancy in reporting requirements.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

- 23.1.1 Behavior Observation Checklist
- 23.1.2 Project Safety Inspections
- 23.1.3 Supervisor Weekly Safety Checklist
- 23.1.4 Project Safety Scorecard
- 23.1.5 Pre-Construction JHA Template
- 23.1.6 Pre-Task Safety Plan
- 23.1.7 Weekly GM-SAFETY DEPARTMENT Worksheet
- 23.1.8 Project Poster Audit Checklist
- 23.1.9 Temporary Power Checklist



## Behavior Observation Checklist

Project: \_\_\_\_\_ Site Location: \_\_\_\_\_

Observer Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ : \_\_\_\_\_ am pm

Critical Behavior	Safe	Concern	N/A	Feedback Given on Critical Behavior observed:
<b>Employee is using the necessary PPE correctly</b>				<b>Positive/Negative Feedback to observed employee</b>
Hard Hat Safety Glasses / Goggles / Face Shield Hearing Protection Gloves (leather, cut, mechanic) Rubbers Gloves & Protectors / Rubber Sleeves Line cover ups (blankets & hose) Supplemental PPE Needed				
<b>Employee is using force in a safe way</b>				<b>Positive/Negative Feedback to observed employee</b>
Pushing or pulling on an object or tool Lifting or moving an object or material Employee is using a hammer in a safe way Employee is using a pry bar / tool in a safe way Gripping a tool or object in a forceful way				
<b>Employee is not placing body parts in the line of fire</b>				<b>Positive/Negative Feedback to observed employee</b>
Employee is not in a position to be struck by a tool or material Employee is not placing his body between tools/objects - pinch point Employee is not in the path of equipment Employee has his hands in a safe position while operating tools Employee is cutting or stripping away from his body				
<b>Slips, Trips and Falls</b>				<b>Positive/Negative Feedback to observed employee</b>
Employee is working /operating equipment at a safe speed Employee is keeping eyes and mind on path and task Employee is using ladder in correct way Employee is maintaining good housekeeping to prevent fall hazards				
<b>STOP WORK RESPONSIBILITY was NOT needed to Remedy the Unsafe Behavior? YES NO</b> <b>Describe Why You Used STOP WORK AUTHORITY, If You Did Not Use Your STOP WORK AUTHORITY - How Did You Remedy the Unsafe Behavior?</b>				
<b>General:</b>				
Have you received safety feedback in the past seven days? <b>YES NO</b> What was the feedback? Feedback Received:				
Have you given safety feedback in the last seven days? <b>YES NO</b> What was the feedback? Feedback Given:				



## Project Safety Inspection Checklist

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project: \_\_\_\_\_

General Requirements & Postings	Pos	Neg	Total	%
First aid kit on site and stocked? 1926.50(d)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
First aid kit is located in designated area and readily accessible? 1926.50(d)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Emergency phone numbers posted? 1926.50(f)	<input type="checkbox"/>	<input type="checkbox"/>		
OSHA & employment posters in place and visible?	<input type="checkbox"/>	<input type="checkbox"/>		
OSHA 300A Summary posted? (Feb 1 - April 30) 1904.32(b)(6)	<input type="checkbox"/>	<input type="checkbox"/>		
Wilkinson Electric Safety Bill of Rights posted?	<input type="checkbox"/>	<input type="checkbox"/>		
Wilkinson Electric Management Commitment posted?	<input type="checkbox"/>	<input type="checkbox"/>		
EAP posted w/map to closest medical facility? 1926.35(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Field Mgr./designated person certified in FA/CPR 1926.50(c)	<input type="checkbox"/>	<input type="checkbox"/>		
Field Manager has OSHA 30 Hour?	<input type="checkbox"/>	<input type="checkbox"/>		
Copy of current Wilkinson Electric Safety Manual on site?	<input type="checkbox"/>	<input type="checkbox"/>		
Wilkinson Electric HAZCOM manual onsite/GHS compliant? 1926.21(b)(3)	<input type="checkbox"/>	<input type="checkbox"/>		
SDS & chemical inventory current for project? 1926.21(b)(3)	<input type="checkbox"/>	<input type="checkbox"/>		
All employees have Wilkinson Electric Safety Training Card on their person?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
Safety Expectations	Pos	Neg	Total	%
Copy of pre-con Job Hazard Analysis on site? 1926.21(b)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
All employees reviewed pre-con JHA? 1926.21(b)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Safety talks performed before work (first day) & documented?	<input type="checkbox"/>	<input type="checkbox"/>		
Daily JSAs performed and documented?	<input type="checkbox"/>	<input type="checkbox"/>		
JSAs match the task being performed?	<input type="checkbox"/>	<input type="checkbox"/>		
Stretch and flex is being completed?	<input type="checkbox"/>	<input type="checkbox"/>		
Behavior observations performed, documented, and discussed?	<input type="checkbox"/>	<input type="checkbox"/>		
Mentorship is being performed with all new hires?	<input type="checkbox"/>	<input type="checkbox"/>		
Mentorship documentation is complete?	<input type="checkbox"/>	<input type="checkbox"/>		
Field Manager is participating in weekly safety calls?	<input type="checkbox"/>	<input type="checkbox"/>		
Field Manager is completing weekly site inspections?	<input type="checkbox"/>	<input type="checkbox"/>		
Follow-ups from weekly site inspections have been followed up on and completed?	<input type="checkbox"/>	<input type="checkbox"/>		
Employees understand their STOP WORK Authority?	<input type="checkbox"/>	<input type="checkbox"/>		
Jobsite Orientation for all employees documented?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
Electrical	Pos	Neg	Total	%
Temporary service in good condition? 1926.403	<input type="checkbox"/>	<input type="checkbox"/>		
No holes in boxes, panels, gear or missing KO plugs? 1926.403	<input type="checkbox"/>	<input type="checkbox"/>		
No missing breakers w/o blank filler? 1926.403	<input type="checkbox"/>	<input type="checkbox"/>		
There a legible panel directory in each panel? 1926.403(b)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Each temporary panel locked or secured? 1926.405(c)	<input type="checkbox"/>	<input type="checkbox"/>		
GFCI is provided? 1926.404(b)(1)(ii)	<input type="checkbox"/>	<input type="checkbox"/>		
Each GFCI is tested each month & documented? 1926.404(b)(1)(iii)(g)	<input type="checkbox"/>	<input type="checkbox"/>		
Every receptacle has a cover? 1926.405(b)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
All temporary light sockets have a lamp? 1926.403	<input type="checkbox"/>	<input type="checkbox"/>		
Temporary lights above 8 feet? 1926.403(i)(2)(i)(d)	<input type="checkbox"/>	<input type="checkbox"/>		

All temporary lights have cages or guards in place? 1926.405(a)(2)(ii)(e)	<input type="checkbox"/>	<input type="checkbox"/>		
Each temp light is supported? 1926.405(a)(2)(ii)(f)	<input type="checkbox"/>	<input type="checkbox"/>		
Temporary lights on multi conductor cable (no single strand)? Subpart K	<input type="checkbox"/>	<input type="checkbox"/>		
Field Mgr. viewed Wilkinson Electric Temporary Power video in last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Ladders</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Are spreaders on step ladders locked? 1926.1053(a)(8)	<input type="checkbox"/>	<input type="checkbox"/>		
Step ladders inspected before use? Verify w/employees 1926.1053(b)(15)	<input type="checkbox"/>	<input type="checkbox"/>		
All step ladders have legible manufacturer labels? 1926.1053	<input type="checkbox"/>	<input type="checkbox"/>		
Employees maintain body positioning inside area of ladder legs?	<input type="checkbox"/>	<input type="checkbox"/>		
Ladders positioned so employee faces ladder while working on it?	<input type="checkbox"/>	<input type="checkbox"/>		
Employees maintain 3-point rule ascending/descending ladders?	<input type="checkbox"/>	<input type="checkbox"/>		
Are employees using properly rated ladders? 1926.1053(b)(3)	<input type="checkbox"/>	<input type="checkbox"/>		
Employees received ladder training? Check training cards 1926.1060(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Platform ladders provided when step ladders need replacing?	<input type="checkbox"/>	<input type="checkbox"/>		
G.C. job-made ladders built /installed properly? ANSI A 14.4-1979	<input type="checkbox"/>	<input type="checkbox"/>		
Ladders min. 10 ft. from guardrails unless fall protection used?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Tools</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
All power tools equipped with proper guards? 1926.300(b)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Electrical cords and plugs in proper working order? 1926.300(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Employees trained on powder or gas actuated tools? 1926.302(e)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Power tools either grounded or double insulated? 1926.302(a)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Are tools being inspected and properly stored? 1926.300(a)	<input type="checkbox"/>	<input type="checkbox"/>		
If required, are power tools being operated using 2 hands?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Excavations</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Competent person present? 1926.650	<input type="checkbox"/>	<input type="checkbox"/>		
Competent person performing required inspections? 1926.651(k)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Excavations properly sloped, benched or shored? 1926 Subpart P	<input type="checkbox"/>	<input type="checkbox"/>		
Soil and other objects kept two feet from edge? 1926.651(j)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Barricade installed around excavation? 1926.651(f)	<input type="checkbox"/>	<input type="checkbox"/>		
Underground utilities identified as required/current? 1926.651(b)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Floor/Wall Openings/Stairwells</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Are 2-inch holes or larger covered? 1926.500	<input type="checkbox"/>	<input type="checkbox"/>		
Employees protected from falling objects? 1926.501(c)	<input type="checkbox"/>	<input type="checkbox"/>		
Materials kept at least 10 feet from the leading edge? 1926.501(c)(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Guard rails around any uncovered holes? 1926.501(b)(4)(i)	<input type="checkbox"/>	<input type="checkbox"/>		
Steel stair pans filled?	<input type="checkbox"/>	<input type="checkbox"/>		
Handrails/Guardrails in place on stairs? 1926.1052(c)(5) & (c)(12)	<input type="checkbox"/>	<input type="checkbox"/>		
Employees protected from falls 6 ft. or greater? 1926.501(b)(5)(6)(7)	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Aerial Lifts &amp; Platforms</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Employees trained/certified on equipment? Check training cards	<input type="checkbox"/>	<input type="checkbox"/>		
Employees remaining on the platform at all times?	<input type="checkbox"/>	<input type="checkbox"/>		

All safety devices operational?	<input type="checkbox"/>	<input type="checkbox"/>		
Chains hooked on the working platform?	<input type="checkbox"/>	<input type="checkbox"/>		
Fall protection provided when applicable? 1926.453(b)(2)(v)	<input type="checkbox"/>	<input type="checkbox"/>		
Daily inspections being performed?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Housekeeping &amp; Material Handling</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Stairways and aisles clear of obstructions? 1926.25(b)	<input type="checkbox"/>	<input type="checkbox"/>		
Materials properly stored or stacked? 1926.25	<input type="checkbox"/>	<input type="checkbox"/>		
Pipes/conduit blocked to prevent rolling? 1926.25	<input type="checkbox"/>	<input type="checkbox"/>		
Nails removed or bent over? 1926.25(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Employees using proper lifting techniques? 1926.20(b)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Is there adequate material handling equipment on the job?	<input type="checkbox"/>	<input type="checkbox"/>		
Walking/Working surfaces free of conduit or flex? 1926.25(a)	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Signs and Barricades</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Are signs and barricades used to protect the public? 1926.200	<input type="checkbox"/>	<input type="checkbox"/>		
Are signs and barricades adequate? 1926.200	<input type="checkbox"/>	<input type="checkbox"/>		
Overhead protection provided at building access?	<input type="checkbox"/>	<input type="checkbox"/>		
Signs identifying other hazards present? 1926.200	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>PPE</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
All employees wearing safety glasses? 1926.102(a)(1)	<input type="checkbox"/>	<input type="checkbox"/>		
All employees wearing leather work boots above ankle? 1926.96	<input type="checkbox"/>	<input type="checkbox"/>		
Employees working around metal studs wearing gloves? 1926.95(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Employees installing lights wear gloves/Kevlar sleeves? 1926.95(a)	<input type="checkbox"/>	<input type="checkbox"/>		
All employees wearing hardhats? 1926.100	<input type="checkbox"/>	<input type="checkbox"/>		
All employees have a voltage detector on their person?	<input type="checkbox"/>	<input type="checkbox"/>		
Employees wearing appropriate glove for the tasks being performed?	<input type="checkbox"/>	<input type="checkbox"/>		
Face shield or goggles used when using hammer/rotary drills? 1926.102	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Temporary Employees</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Do all temporary employees have an OSHA 10?	<input type="checkbox"/>	<input type="checkbox"/>		
Documentation of temp employees completing project orientation?	<input type="checkbox"/>	<input type="checkbox"/>		
Temp employees know where the HAZCOM manual is located?	<input type="checkbox"/>	<input type="checkbox"/>		
All temp employees attend Monday morning toolbox safety meeting?	<input type="checkbox"/>	<input type="checkbox"/>		
Toolbox safety meeting sign off just for temp employees?	<input type="checkbox"/>	<input type="checkbox"/>		
Temp employees sign off on daily pre-task huddle?	<input type="checkbox"/>	<input type="checkbox"/>		
Temp employees wear required PPE?	<input type="checkbox"/>	<input type="checkbox"/>		
All temp employees have voltage detector on their person?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>				
<b>Lockout/Tagout</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Are Competent Persons trained and documented? - Check Card	<input type="checkbox"/>	<input type="checkbox"/>		
Is there a site Specific LOTO plan in place if needed?	<input type="checkbox"/>	<input type="checkbox"/>		
Do all locks have tags on them?	<input type="checkbox"/>	<input type="checkbox"/>		
Is the proper information on the tags?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Category Total</b>				

<b>GRAND TOTAL</b>				
<b>Category Totals</b>	<b>Pos</b>	<b>Neg</b>	<b>Total</b>	<b>%</b>
Floor/Wall Openings/Stairwells				
General Requirements & Postings				
Safety Expectations				
Temporary Employees				
Electrical				
Housekeeping & Material Handling				
PPE				
Ladders				
Tools				
Excavations				
Aerial Lifts & Platforms				
Signs and Barricades				
Lockout/Tagout				



## Supervisor Weekly Safety Checklist

Supervisor \_\_\_\_\_

Project \_\_\_\_\_ Date \_\_\_\_\_

**HOUSEKEEPING** NA Yes No

- Overall Cleanliness Acceptable \_\_\_\_\_
- Equipment Stored Properly \_\_\_\_\_
- Trash/Debris Picked Up \_\_\_\_\_
- Walkway Clear \_\_\_\_\_
- Restrooms Clean \_\_\_\_\_
- Cylinders Stored Properly \_\_\_\_\_
- Cord Above Ground \_\_\_\_\_
- Gang Box / Print Shack Pinned \_\_\_\_\_

**SCAFFOLDS** NA Yes No

- Handrails, Midrails, & Toeboards \_\_\_\_\_
- Swing Gate Used \_\_\_\_\_
- Planks Secured \_\_\_\_\_
- Planks Cleated or Extend 6" Over Ends \_\_\_\_\_
- Incomplete Scaffold Identified \_\_\_\_\_
- Stable Footing \_\_\_\_\_

**BARRICADES** NA Yes No

- Properly Used \_\_\_\_\_
- Overhead Work Identified \_\_\_\_\_
- Floor Openings Protected \_\_\_\_\_

**PAPERWORK REVIEWED** NA Yes No

- JSA Checked \_\_\_\_\_
- Client Permit Issued \_\_\_\_\_
- Hot Work Permit Issued \_\_\_\_\_
- Mobile Equipment Checked \_\_\_\_\_
- Confined Space Permit Issued \_\_\_\_\_
- Excavation Permit Issued \_\_\_\_\_
- Safety Observations Submitted \_\_\_\_\_
- LOTO Reviewed \_\_\_\_\_

**CONFINED SPACE** NA Yes No

- Atmosphere Checked \_\_\_\_\_
- Ventilation Checked \_\_\_\_\_
- Permit Complete \_\_\_\_\_
- All Employees Know Their Duties \_\_\_\_\_
- Rescue Plan in Place \_\_\_\_\_

**EXCAVATION** NA Yes No

- Atmosphere Checked \_\_\_\_\_
- Safe Access/Egress \_\_\_\_\_
- Permit Complete \_\_\_\_\_
- Side Sloped Properly \_\_\_\_\_
- Shoring Box Used \_\_\_\_\_
- Rescue Plan in Place \_\_\_\_\_

**LADDERS** NA Yes No

- Stored Properly \_\_\_\_\_
- Signage Legible \_\_\_\_\_
- Tied Off Properly \_\_\_\_\_
- Adequate Footing \_\_\_\_\_

**FLAMMABLE LIQUIDS** NA Yes No

- Stored in Safety Cabinet \_\_\_\_\_
- Safety Cabinet Grounded \_\_\_\_\_
- Aerosols Stored Properly \_\_\_\_\_

**EMPLOYEE FACILITY** NA Yes No

- Water Available \_\_\_\_\_
- Lunch Area Clean \_\_\_\_\_
- Hand Washing Available \_\_\_\_\_
- Port-A-Can Accessible \_\_\_\_\_

**FIRE PROTECTION** NA Yes No

- Current Inspection \_\_\_\_\_

**MOBILE EQUIPMENT** NA Yes No

- Inspection Paperwork Complete \_\_\_\_\_
- Training Card on Operator \_\_\_\_\_

**ELECTRICAL** NA Yes No

- Access to Panels Acceptable \_\_\_\_\_
- LOTO Procedure Followed \_\_\_\_\_
- Locks & Hasps Available \_\_\_\_\_
- Lighting Adequate \_\_\_\_\_
- MCCs Condition Acceptable \_\_\_\_\_
- Elect Equip/Bldg in Good Condition \_\_\_\_\_
- Visual Insp of Grounding Connections \_\_\_\_\_
- GFCI Available \_\_\_\_\_
- Extension Cord Tested \_\_\_\_\_
- Cord has Current Inspection \_\_\_\_\_
- Cord Routed Properly \_\_\_\_\_
- Receptacles/Outlets in Good Condition \_\_\_\_\_

**PPE** NA Yes No

- Available & Properly Used \_\_\_\_\_
- Properly Stored \_\_\_\_\_
- Hearing Protection Areas Identified \_\_\_\_\_
- Fall Protection has Current Inspection \_\_\_\_\_

**TOOLS** NA Yes No

- Guards in Place \_\_\_\_\_
- Current Inspection \_\_\_\_\_
- Properly Stored \_\_\_\_\_

**WASTE MANAGEMENT** NA Yes No

- Waste Segregated \_\_\_\_\_
- Containers Labeled \_\_\_\_\_
- Spill Kits Available \_\_\_\_\_

Additional Notes/Concerns  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

General Foreman / Superintendent Approval \_\_\_\_\_



# Project Safety Scorecard Performance Monthly Review

Project Number  
 Project Name  
 Project Manager  
 Month


Pre-Construction JHA Completed  
 Turnover Meeting Completed

Safety Approval

Date	Date

Observations Expected  
 Observations Complete  
 % Complete

Amount  
 0  
 0  
 #DIV/0!

Observations with Feedback  
 % Complete

0  
 #DIV/0!

Top Unsafe Acts Observed and Plan to Improve

Observation Gap Review:

New Employees  
 Jobsite Orientation checklist Received  
 % Complete

#DIV/0!

Mentor Checklist Received  
 % Complete

#DIV/0!

Daily Pre-Task Huddles Expected  
 Daily Pre-Task Huddles Received

#DIV/0!

Training  
 % of Employees Current

0%

Training Completed

# Reported  
 Lost Work Day Injuries  
 Restricted Duty Injuries  
 Recordable Injuries

0  
 0  
 0

First Aid Injuries  
 Property Damage Incidents

0  
 0

Near Miss Reports

0

Total

0

Incident/Injury/Near Miss  
 Follow-Ups Completed

0

Training Needs/Schedule

Follow-Up/ Notes



# JOB HAZARD ANALYSIS

DATE PREPARED: \_\_\_\_\_ PREPARED BY: \_\_\_\_\_ JOB #: \_\_\_\_\_

OPERATION: \_\_\_\_\_

STEP BY STEP PLAN:	Access Identification:		Ergonomic Risks:
	Location	Type	
1.			Lifting <input type="checkbox"/>
2.			Repetitive Motion <input type="checkbox"/>
3.			Vibration <input type="checkbox"/>
4.			Awkward Position <input type="checkbox"/>
5.			
6.			
7.			
8.			

Strategic Risks	Evident Risk	Needs Special Planning	Needs Additional Safety Training	Unique PPE Required
Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Skid steer w/ auger	Harness / Lanyard <input type="checkbox"/>
Exposure to Falls	<input type="checkbox"/>	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Forklift	Face Shield / Goggles <input type="checkbox"/>
Vehicle Traffic	<input type="checkbox"/>	<input type="checkbox"/> Flagger	<input type="checkbox"/> Aerial Lift	Leather / Kevlar Chaps <input type="checkbox"/>
Night Work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Rail Equipment	Toe / Foot Guards <input type="checkbox"/>
Live Trains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> RWP / Track Access	Ear Plugs / Muffs <input type="checkbox"/>
Lock-Out / Tag-Out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> EIC / POC	Respiratory Protection <input type="checkbox"/>
Power Tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Chain Saw	Cutting Goggles <input type="checkbox"/>
Trench / Excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Cut-Off Saw	Welding Hood <input type="checkbox"/>
Falsework / Shoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Circular Saw	Welding Leathers <input type="checkbox"/>
Underground Utilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Grinder	Life Vest <input type="checkbox"/>
Confined Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Jack Hammer	Other: <input type="checkbox"/>
Overhead Powerlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Chipping Gun	
Electrical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Sawzall	
Critical Lift Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:	
Hazardous Materials (MSDS attached)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Respiratory Protection	Traffic Control <input type="checkbox"/>
Public Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Silica Awareness	RWP / Track Access <input type="checkbox"/>
Other Safety Risks:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Lead Awareness	Excavation / Dig <input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> HAZWOPER	One-Call (utility locates) <input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:	Confined Space <input type="checkbox"/>
				Hot Work <input type="checkbox"/>
				Scaffolding <input type="checkbox"/>
				Other: <input type="checkbox"/>

Step 1:		Step 2:		Step 3:	
WHAT IS THE WORST THAT COULD HAPPEN?					
PREVENTION PLAN (Focus on Behaviors)					

HOW ARE YOU MOST LIKELY TO GET HURT?					
PREVENTION PLAN (Focus on Behaviors)					

OTHER RISKS TO BE AWARE OF?					
PREVENTION PLAN (Focus on Behaviors)					

Step 4:		Step 5:		Step 6:	
WHAT IS THE WORST THAT COULD HAPPEN?					
PREVENTION PLAN (Focus on Behaviors)					
HOW ARE YOU MOST LIKELY TO GET HURT?					
PREVENTION PLAN (Focus on Behaviors)					
OTHER RISKS TO BE AWARE OF?					
PREVENTION PLAN (Focus on Behaviors)					

<p><b>Step 7:</b></p> <p><b>WHAT IS THE WORST THAT COULD HAPPEN?</b></p> <p><b>PREVENTION PLAN</b> (Focus on Behaviors)</p>			<p><b>Step 8:</b></p>	<p><b>Sketch:</b></p>
<p><b>HOW ARE YOU MOST LIKELY TO GET HURT?</b></p> <p><b>PREVENTION PLAN</b> (Focus on Behaviors)</p>				
<p><b>OTHER RISKS TO BE AWARE OF?</b></p> <p><b>PREVENTION PLAN</b> (Focus on Behaviors)</p>				<p><b>Additional Notes:</b></p>

**OPERATION:**







## Pre-Task Safety Plan

**Project/Site Information:**

<b>Project:</b>		<b>Date:</b>	
<b>Work Area:</b>		<b>Time:</b>	
<b>Employee Name:</b>		<b>Supervisor / Foreman:</b>	
<b>Task Description - (Be specific about the task)</b>			
<b>Weather Conditions</b>		<b>Ground Condition</b>	
<input type="checkbox"/> Sunny	<input type="checkbox"/> Dry	<input type="checkbox"/> ≤ 0° F	
<input type="checkbox"/> Cloudy	<input type="checkbox"/> Wet	<input type="checkbox"/> 0-32°F	
<input type="checkbox"/> Rainy	<input type="checkbox"/> Muddy	<input type="checkbox"/> 32-45° F	
<input type="checkbox"/> Snow – Accumulation:          in.	<input type="checkbox"/> Snow/Ice – Covered with          in.	<input type="checkbox"/> 45-60° F	
<input type="checkbox"/> Windy >10 mph	<input type="checkbox"/> Other:	<input type="checkbox"/> 60-80° F	
<input type="checkbox"/> Other:		<input type="checkbox"/> 80-90° F	
		<input type="checkbox"/> 90+° F	

**Identification of Site Hazards: (Check only those that apply to the work you are performing)**

**Permits**

- Confined Space
- Hot Work
- Excavation/ One Call
- Grating Removal

**Personal Protective Equipment**

- Normal PPE
  - Hard Hat
  - Safety Glasses
  - Work Boots
- Fire Retardant Clothing
- Gloves \_\_\_\_\_ type (What Type Needed?)
- Additional Foot Prot: \_\_\_\_\_
- Face Shield
- Respirator
- Hearing Protection (Ear Plugs)
- Fall Protection
- Seat Belts
- Burning Goggles
- Welding Shield
- Welding Sleeves
- Mono-goggles
- Other \_\_\_\_\_

**Tools**

- Daily Inspection
- Proper Tools for the job

**Emergency Info/Equipment Location**

- Fire Hose
- Fire Extinguishers/ Current Inspection
- Safety Shower
- Evacuation Route
- Reporting Area
- SDS Review

**Fall Protection**

- Safety Harness (inspected)
- Proper anchorage point
- Lifeline
- Personnel platform (man basket)
- Daily inspections
- Double Lanyards
- Employees Trained? Documented?

**Excavations**

- Properly barricaded
- Shoring required
- Proper access
- Inspected by competent person
- Other \_\_\_\_\_

**Welding**

- Condition of welding leads
- Combustibles
- Welding screens
- Grounding
- Fire blanket
- Fire extinguisher/inspected
- Proper Clothing
- Welding Hood
- Welding Gloves
- Sleeves/Jackets
- Fire Watch
- Other \_\_\_\_\_

**Electrical**

- GFCI test
- Extension cord inspections
- Cords routed out of walkways/ 7' above ground
- Electrical tool inspected
- Lighting
- Other \_\_\_\_\_

**General**

- Flammable
- Arsenic
- Heat stress
- Signs
- Hole covers (Marked Hole Cover)
- Handrails 42" +/- 3 Inches-200lbs.
- Slip/Trip Hazards
- Housekeeping in Order

**Scaffolding/Ladder**

- Tied Off
- Inspected by competent person
- Tagged
- Special provisions
- Access
- Proper ladder
- Fall Protection for Over 24' Climb
- Other \_\_\_\_\_

**Crane/Lifting Equipment**

- Crawler Crane
- Inspected
- Proper Maintenance
- Communications
- Hydraulic Cranes
- Inspected
- Maintained
- Outriggers extended
- JLG
- Manual lifting equip. \_\_\_\_\_
- Properly inspected
- Proper rigging practice
- Personnel platform pre-lift form
- Critical lift plan
- Overhead hazards
- Proper barricade
- Other \_\_\_\_\_



**WEEKLY GM/DSM MEETING****Location:****Meeting Date:****Attendees:****Time:**

Open Items from last meeting

New Items from current week

Current Projects

Safety Committee Notes

Cost Impacts

Potential Jobs

Safety Reports Top 10 (monthly)

Safety Summary &amp; Rack and Stack (monthly)

Trending results from Safety Observations and Stop Work

Who is Completing safety observations and who is not

Recent incidents/near misses from last week
Training Plan
Visit Schedule
Upcoming Events
Notes

<b>Location:</b>	<b>Date:</b>
<b>DSM - Signature</b>	<b>DSM – Print Name</b>
<b>GM - Signature</b>	<b>GM – Print Name</b>



# Project Poster Audit Checklist

IES Project Name: \_\_\_\_\_  
 Project Address: \_\_\_\_\_  
 Project City/State: \_\_\_\_\_

IES Division: \_\_\_\_\_  
 Date: \_\_\_\_\_

REQUIRED POSTINGS	POSTED		CURRENT		N/A
	YES	NO	YES	NO	
<b>IES Safety</b>					
IES Emergency Information					
IES Emergency Action Plans					
IES Management Commitment to Safety					
IES Employee Safety Bill of Rights					
Project Specific WC Posters - Check Contract Requirements					
IES OSHA 300A Summary (February 1 - April 30 only)					
Approved Driver List					
<b>Federal and State Employment Law Posters</b>					
Federal Employment Law Combined Poster - rev: 7/16					
"EEO is the Law" Supplement Poster - OFCCP Website Revised September 2015					
State Employment Law Combined Poster - refer to attachment 1 for current revision dates					
State Employment Law Additional Poster(s) - refer to attachment 2 for current revision dates					
State Local Ordinance Employment Law Poster(s) - refer to attachment 3 for current revision dates					
State Employment Law Poster - IES WC Carrier Ins. Info. (Sticker/Memo)					
State Employment Law WC Physicians Listing - if applicable					
IES-TX Facilities only No Guns 1 of 2					
IES-TX Facilities only No Guns 2 of 2					
<b>IES Corporate</b>					
IES EEO Policy Memo - eff: 1/2017 by Sarah Kerrigan					
IES EEO Officer Memo - eff: 1/2017 by Gail Makode					
IES EEO Protected Veterans/Disabled AAP - eff: 1/2017 by Gail Makode					
IES Pay Transparency Nondiscrimination Poster - eff: 1/2016					
IES Employee Assistance Program Poster					
IES Ethics Line Poster					
IES E-Verify and Right to Work Combined Poster					
C&I Violence in Workplace Poster - eff: 10/2013					
<b>State Prevailing Wage Project</b>					
Prevailing Wage Schedule					
Apprenticeship Certification For All Apprentices On-Site -if applicable					
<b>Davis-Bacon Federal Contracts</b>					
Worker Rights Under Executive Order 13658; Federal Minimum Wage for Contractor poster eff. 1/2016					
Prevailing Wage Schedule					
Apprenticeship Certification For All Apprentices On-Site - if applicable					
DB Employee Rights Poster Under The Davis-Bacon Act Poster - eff: 4/09					
Employee Rights Under the NLRA Poster - no effective date listed					
<b>Corrective Actions Required, if applicable:</b>					

**Auditor "Safety Manager" Signature/Print**

**Project Manager Signature (print name)**

OFCCP's website <http://www.doi.gov/ofccp/regs/compliance/posters/ofccpost.htm>

If you don't see the state you are currently operating in please notify your HR Representative.

\*\*\*SEND COMPLETED AUDIT TO YOUR HR REPRESENTATIVE\*\*\*





## Respirable Crystalline Silica Awareness Program and Written Exposure Control Plan

### PROGRAM STATEMENT

Wilkinson Electric recognizes the Respirable Crystalline Silica Standard (RCS) for Construction; set forth in 29 C.F.R. §1926.1153 applies to all occupational exposures to RCS in construction work in excess of the Action Level, 25 micrograms per cubic meter of air (25  $\mu\text{g}/\text{m}^3$ ) as an 8-hour time-weighted-average (TWA). Wilkinson Electric employees may perform some intermittent tasks that involve a brief exposure to trace amounts of RCS that is incidental to their primary work in which the task duration is very short and expected to be below the Action Level (25  $\mu\text{g}/\text{m}^3$  at an 8-hour TWA).

### DEFINITIONS

1. Action Level: Concentration of airborne respirable silica at or above 25  $\mu\text{g}/\text{m}^3$ , calculated at an 8-hour TWA
2. Competent person means an individual who is capable of identifying existing and foreseeable respirable crystalline silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them. The competent person must have knowledge and ability to implement the written exposure control plan required under the standard.
3. Employee Exposure: Exposure to airborne respirable crystalline silica that would occur if the employee were not using a respirator.
4. HEPA – High-Efficiency Particulate Air Filter: A filter that is at least 99.97 percent efficient in removing mono-dispersed particles of 0.3 micrometers in diameter.
5. LEV – Local Exhaust Ventilation: Method of reducing workers' exposure to potentially harmful substances generated by the work program
6. Objective Data: Air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or specific program, task or activity that reflects workplace conditions at a higher exposure potential than the employer's current operations.
7. Permissible Exposure Level: Concentration of airborne respirable crystalline silica of 50  $\mu\text{g}/\text{m}^3$  50 Micrograms calculated at an 8-hour TWA, which nearly all individuals can be exposed without adverse effects
8. PLHCP – Physician or other licensed health care professional: Individual whose legally permitted scope of practice allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by the medical surveillance standard.
9. Respirable Crystalline Silica: Quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle-size-selective samplers in the ISO 7708:1995: Air Quality – Particle Size Fraction Definitions for Health-Related Sampling
10. Specialist: American Board-Certified Specialist in Pulmonary Disease or American Board-Certified Specialist in Occupational Medicine
11. Specified Exposure Control Methods:
  - A. For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified on Table 1, unless the employer assess and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph (d) Alternative exposure control methods.
12. Stop Work Authority: All employees have the authority to stop work to protect themselves or others when a hazard or foreseeable hazard is eminent.
13. Engaged Employee is both the individual performing a Table 1 task and the individual(s) assisting the Table 1 task user.

### RESPONSIBILITIES

1. Employee
  - A. Shall report all unsafe condition to their supervisor immediately and use "Stop Work Authority" when a risk of exposure exists
  - B. Shall use all equipment in accordance with the manufacturer's instructions
  - C. Shall follow the site exposure control plan

- D. May request the use of a “voluntary respiratory protection”, Wilkinson Electric issues a N95 dust mask or similar to upon a voluntary request
  - E. Shall attend all required training prior to starting task
2. Supervisor
- A. Evaluate conditions and task prior to work to identify any potential exposure hazards
  - B. Shall identify if an atmospheric hazard exists prior to issuing voluntary respiratory protection. If no hazard exists, a N95 disposable dust mask can be issued to the requesting employee if the mask does not create an additional hazard and the employee is give the 21.1.1 Voluntary Protection – Appendix D
3. Safety
- A. Provide training
  - B. Support program requirements at projects

**PROGRAM REQUIREMENTS**

1. Pre-Work Exposure Assessment
- A. Wilkinson Electric does not anticipate that employees will perform work tasks that create an exposure to RCS above 25 micrograms.
  - B. Prior to the start of working Wilkinson Electric Competent Person shall:
    - I. Identify employee tasks that may create silica dust
    - II. Identify which control methods will be used based on the task and Table 1 to prevent exposure
    - III. Identify worksite conditions to determine if the risk of exposure is foreseeable
      - 1) Identify if work task with a higher risk of exposure, performed by other contractors, are performed where it may expose Wilkinson Electric employees
      - 2) If an exposure risk is unavoidable, **Stop Work**, consult the GC or Owner to identify engineering solutions or administrative solutions that will eliminate or diminish the RCS exposure below the Action Level.
      - 3) If another subcontractor creates an exposure risk, and there are no means by which Wilkinson Electric employees can avoid or abate the exposure risk, **Stop Work**, and consult the GC or Owner immediately to eliminate or diminish the RCS exposure below the Action Level, and do not return to work until RCS exposure has been reduced to below the Action Level.
        - a) **Stop Work Authority** will be used when conditions change and the risk of exposure above the Action Level becomes foreseeable.
2. Specified Exposure Control Plan
- To ensure Wilkinson Electric employees are protected from exposure during tasks and/or equipment use, we have adopted the Specified Exposure Control Method in Table 1 of 29 C.F.R. § 1926.1153 that identifies the engineering controls, work practices, and respiratory protection will eliminate or diminish the exposure to RCS for those work tasks identified in Table 1.
- A. Competent person shall utilize Table 1 of 29 C.F.R. § 1926.1153 for work tasks identified in Table 1 and implement the control methods and respiratory protection identified therein to eliminate or control exposure.
  - B. Tasks in the workplace that may involve exposure to RCS
    - I. Handheld drills: Duration of exposure is 15 minutes or less, the 8-hour TWA exposure can reasonably be anticipated to remain under the 25 µg/m<sup>3</sup> threshold (assuming no exposure for the remainder of the shift)
      - 1) Use drill equipped with commercially available shroud or cowling with dust collection system.
      - 2) Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions
      - 3) Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.
      - 4) Use a HEPA-filtered vacuum when cleaning holes
    - II. Administrative Controls: Restricted access; Post warning signs to prevent unplanned exposure during tasks that create an Action Level or higher exposure.
  - C. Use and Care of Control Methods
    - I. Portable fans to exhaust air and prevent buildup of dust
    - II. Inspect Shrouds and Hoses prior to use to ensure they are in good working condition and meet the requirements as specified by the manufacturer
    - III. Replace vacuum bags as needed to prevent overfilling
    - IV. Follow the manufacturer’s maintenance, use and care instructions
    - V. Dispose of contaminated debris in sealed container
  - D. Communication and Restricted Access to Work Area;

- I. Notify General Contractor or Owner of location and tasks that may create exposure
  - II. Use signs to Notify employees and other workers on site of possible exposure to silica; provide barriers to limit foot traffic in area where the risk of exposure is foreseeable
  - III. Only employees performing the work may be allowed in the 'risk of exposure' area
  - IV. Signs will be displayed when work tasks are suspected to exceed the Action Level
  - E. Housekeeping measures and safe work practice
    - I. Use a HEPA-filter vacuum whenever possible as an engineered solution to replace dry sweeping and compressed air as a means to remove construction dust from work area, tools, or equipment
    - II. Use a dust control sweeping compound to eliminate airborne dust particles while sweeping
      - 1) No sweeping or brushing construction debris and/or dust where there was a known silica exposure
      - 2) Do not use compressed air unless it is used with a ventilation system that effectively captures the dust cloud create by compressed air
      - 3) Personal Hygiene
      - 4) HEPA vacuum can be used to remove dust from clothing
      - 5) Wash hands and face before eating and after performing work tasks identified in Table 1
      - 6) No Eating and No Smoking (including non-tobacco or smokeless tobacco) in areas where there is a potential for exposure
      - 7) Disposal of silica containing materials such as dust or debris shall be in a sealed container
  - F. Indications the control method is not working and/or risk of exposure increases
    - I. Dust becomes visible, **stop work**, inspect control methods to ensure all parts are in good working condition, make necessary adjustments, proceed with task
    - II. Dust cannot be controlled, **stop work** and speak with the Supervisor, or Safety to evaluate/inspect tools, identify an alternative engineered solution that is acceptable under Table 1
3. Program Review shall be reviewed at least once yearly with all incidents in relation to this program.
    - I. Incident driven updates to ensure corrective or preventative actions have been adopted
    - II. Compliance with OSHA standards

#### **TRAINING**

1. Employees shall attend training and successfully complete the comprehensive material prior to initial assignment and a refresher at least once a year or when employee appears to need additional training.

#### **RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

#### **FORMS**

- 24.1.1 OSHA 1926.1153 Table 1 Specified Exposure Control Methods (Referred to as Table 1)
- 24.1.2 Silica Exposure Control Plan
- 21.1.1 Voluntary Respiratory Protection Appendix D Employee Notice



**Table 1 Specified Exposure Control Methods**

OSHA 29 CFR 1926.1153 Respirable crystalline silica

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours/shift	> 4 hours/shift
<b>Stationary masonry saws</b>	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	None	None
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
<b>Handheld power saws</b> ( <i>any blade diameter</i> )	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	Outdoors: None	Outdoors: APF 10
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	Indoors/Enclosed area: APF 10	Indoors/Enclosed area: APF 10
<b>Handheld power saws</b>	For tasks performed outdoors only:	None	None
( <i>for cutting fiber-cement board, with a blade diameter of 8 inches or less</i> )	Use saw equipped with commercially available dust collection system.		
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.  Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99 percent or greater efficiency.		
<b>Walk-behind saws</b>	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	Outdoors: None	Outdoors: APF 10
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	Indoors/Enclosed area: APF 10	Indoors/Enclosed area: APF 10
<b>Handheld grinders for mortar removal</b>	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	APF 10	APF 25
( <i>i.e., tuckpointing</i> )	Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99 percent or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.		

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours/shift	> 4 hours/shift
<b>Drivable saws</b>	For tasks performed outdoors only:	None	None
	Use saw equipped with integrated water delivery system that continuously feeds water to the blade.		
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
<b>Rig-mounted core saws or drills</b>	Use tool equipped with integrated water delivery system that supplies water to cutting surface.	None	None
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
<b>Handheld and stand-mounted drills</b> <i>(including impact and rotary hammer drills)</i>	Use drill equipped with commercially available shroud or cowling with dust collection system.	None	None
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
	Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99 percent or greater efficiency and a filter-cleaning mechanism.		
	Use a HEPA-filtered vacuum when cleaning holes.		
<b>Dowel drilling rigs for concrete</b>	For tasks performed outdoors only:	APF 10	APF 10
	Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99 percent or greater efficiency and a filter-cleaning mechanism.		
	Use a HEPA-filtered vacuum when cleaning holes.		
<b>Vehicle-mounted drilling rigs for rock and concrete</b>	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None
	OR		
	Operate from within an enclosed cab and use water for dust suppression on drill bit.		

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours/shift	> 4 hours/shift
<b>Jackhammers and handheld powered chipping tools</b>	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.		
	When used outdoors.	None	APF 10
	When used indoors or in an enclosed area.	APF 10	APF 10
	OR		
	Use tool equipped with commercially available shroud and dust collection system.	Outdoors: None	Outdoors: APF 10
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	Indoors/Enclosed area: APF 10	Indoors/Enclosed area: APF 10
	Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99 percent or greater efficiency and a filter-cleaning mechanism.		
<b>Handheld grinders for uses other than mortar removal</b>	For tasks performed outdoors only:	None	None
	Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface.		
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
	OR		
	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	Outdoors: None	Indoors/Enclosed area: APF 10
<b>Heavy equipment and utility vehicles used:</b>	Operate equipment from within an enclosed cab.	None	None
To abrade or fracture silica-containing materials (e.g., hoe-ramping, rock ripping)  During demolition activities involving silica-containing materials	When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.		
<b>Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials</b>	Apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None
	or		
	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.		

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours/shift	> 4 hours/shift
<b>Walk-behind milling machines and floor grinders</b>	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface.	None	None
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
	OR		
	Use machine equipped with dust collection system recommended by the manufacturer.		
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
	Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99 percent or greater efficiency and a filter-cleaning mechanism.		
<b>Small drivable milling machines</b>	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant.	None	None
	<i>(less than half-lane)</i> Operate and maintain machine to minimize dust emissions.		
<b>Large drivable milling machines</b>	For cuts of any depth on asphalt only:	None	None
	<i>(half-lane and larger)</i> Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.		
	Operate and maintain machine to minimize dust emissions.		
	For cuts of 4 inches in depth or less on any substrate:		
	Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.		
	Operate and maintain machine to minimize dust emissions.		
	OR		
	Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant.		
Operate and maintain machine to minimize dust emissions.			
<b>Crushing machines</b>	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points).	None	None



	Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions.		
	Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station.		



### Silica Exposure Control Plan

Project: \_\_\_\_\_ Date: \_\_\_\_\_

Description of Tasks: \_\_\_\_\_

**Specific Tasks**  Drilling  Cutting  Sweeping/Brushing  Cleaning  
**Other Tasks:**  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Specific Tools:**  Handheld Powered Drill  Handheld Powered Saw  Handheld Powder Actuated  
**Other Tools:**  \_\_\_\_\_  \_\_\_\_\_

**Materials:**  Drywall  Concrete  Tile  \_\_\_\_\_

**Properly Implemented Exposure Control Method and Housekeeping:**

1. Operate all tools and attachments in accordance with manufacturer’s instructions to minimize dust emissions;
2. Ensure air flow is sufficient to operate equipment with a dust collection system
3. Equipment is in good working order, free of defects
4. Employees are trained in use and maintenance of control methods
5. **Engineering Exposure Control Method:** Attachment:  Water delivery system  Dust collection system  
 HEPA-filter or 99% efficient vacuum  Sealed container for disposal Other:  \_\_\_\_\_
6. **Administrative Exposure Control Method:**  
 Relocate work or workers  Reschedule work  Restricted Access  Signs & Barricades
7. **Other Methods:**  \_\_\_\_\_  \_\_\_\_\_
8. **Do not** use compressed air to clean construction dust on tools, equipment or clothing
9. **Do not** dry sweep or brush construction dust  Dust control compound: \_\_\_\_\_

**Work performed by other contractors in close proximity to Wilkinson Electric: Subcontractor, Contact and Tasks**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Wilkinson Electric *personnel acknowledging exposure control plan: By signing this plan you: can identify exposure hazards; are trained in proper tool use; will implement controls identified by task; understand voluntary respirator use; and will use **Stop Work Authority** when you suspect exposure.* (additional signatures use back of this page)

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Voluntary Respiratory Protection issued to: \_\_\_\_\_

Competent Person Name	Signature	Date
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## Asbestos Awareness Program

### PROGRAM STATEMENT

To assure a safe and healthy work environment, Wilkinson Electric has instituted a program designed to protect employees against occupational asbestos exposure. Wilkinson Electric does not perform work where there is a risk of asbestos exposure. Only qualified and trained personnel shall perform asbestos related activities.

### DEFINITIONS

1. Competent Person – one who is capable of identifying existing and predictable asbestos hazards in surroundings or working conditions and who has the authority to take prompt corrective measures to eliminate them.
2. Authorized Person – any person authorized by Wilkinson Electric and required by work duties to be present in regulated areas.
3. Asbestos - includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered.
4. Asbestos-Containing Material (ACM) – any material containing more than 1% percent asbestos.
5. Category I Nonfriable ACM – asbestos-containing packings, gaskets, resilient floor coverings and associated mastics, and asphalt roofing products containing more than 1% percent asbestos.
6. Category II Nonfriable ACM – any material, excluding Category I Nonfriable ACM, containing more than 1% percent asbestos that, when dry, cannot be crumbled, cannot be crushed, pulverized, or reduced to powder by hand pressure.
7. Excursion Limit – an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of 30 minutes.
8. Friable ACM - when dry, can be crumbled, pulverized, or reduced to powder by normal hand pressure.
9. HEPA Filter – high-efficiency particulate air filter that is capable of trapping and retaining at least 99.97% of all mono dispersed particles of 0.3 micrometers in diameter or larger.
10. Presumed Asbestos Containing Material (PACM) – means thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of a material as "PACM" may be rebutted pursuant to paragraph (k)(4) of this section.
11. Regulated Area – an area established where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos exceed, or where there is a reasonable possibility they may exceed, the permissible exposure limit. Requirements for regulated areas are set out in paragraph (e)(6) of 29CFR 1926.1101.
12. Thermal System Insulation (TSI) – ACM applied to pipes, fittings, boilers, breaching, tanks, ducts, or other structural components to prevent heat loss or gain.
13. Time-Weighted Average Limit (TWA) – an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter of air as an eight (8) hour time-weighted average.

### RESPONSIBILITIES

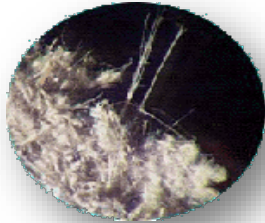
1. Employee
  - A. Shall attend training prior to starting work on a project with Asbestos Exposure Hazards
  - B. Shall follow program requirements and wear proper PPE
  - C. Shall report all suspicious material to the Supervisor immediately
2. Supervisor
  - A. Shall inform all employees the location of hazardous materials known to be onsite and provide HAZCOM training for those known substances.
  - B. Upon notification of suspicious material, Supervisor shall have employees removed from area and not resume work until confirmation from an Industrial Hygienist tests material and confirms content.
3. Safety
  - A. Shall decide the style and type of respirators available for employee use.

### PROGRAM REQUIREMENTS

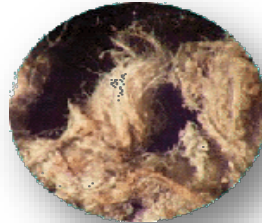
1. General Precautions The following general precautions will reduce exposure and lower the risk of asbestos related health problems:

- A. Drilling, sawing, or the use of nails on asbestos containing material (ACM) may release asbestos fibers into the air causing a potential inhalation exposure. Do not perform these tasks on known ACM. STOP WORK, contact your Supervisor or Safety Manager before disturbing ACM.
  - B. Floor tiles, ceiling tiles, and adhesives containing asbestos should never be sanded.
  - C. Use care not to damage asbestos when moving ladders or any other objects within your work area.
  - D. Know the location of asbestos in your work area.
    - I. Use common sense when working around products that contain asbestos.
    - II. Follow warning signs and labels
    - III. Avoid touching or disturbing friable asbestos containing material on walls, ceilings, pipes, ducts, or boilers.
  - E. If you are working in an area with other contractors around products that may contain asbestos, ensure they are aware of the situation and that they do not damage asbestos causing exposure to them and you. These noted general precautions must be adhered to by all.
  - F. Report any damaged, change in condition, or loose asbestos contained material to your Supervisor.
  - G. When performing tasks in work areas with other contractors.
2. Asbestos removal or repair work on ACM must be done by those who receive specific specialty training. OSHA and EPA regulations are very specific about work practices and equipment required to safely remove asbestos. These requirements may include proper respirators, special enclosures, training, exposure monitoring, long-term recordkeeping, and medical surveillance.
  3. Specially trained personnel must perform cleanup of asbestos spills. OSHA and EPA regulations are very specific about work practices and equipment required to work safely with asbestos. These requirements may include respiratory protection, special enclosures, training, exposure monitoring, record keeping, and medical surveillance. Proper procedures must be followed to reduce the spread of asbestos fibers after a release has occurred, such as the partial collapse of a ceiling containing spray-on asbestos. Depending on the severity of the release, an asbestos contractor may be called to conduct the cleanup operation. You should never attempt to clean up asbestos spills.
  4. Personnel exposed to asbestos by an accidental release of fibers, personnel should take the following steps to reduce asbestos exposure to occupants until trained asbestos personnel arrive:
    - A. Prevent access to the contaminated area, if possible
    - B. Shut and lock doors
    - C. Report the damaged ACM to your Supervisor
    - D. Remain in the area to direct asbestos personnel to the site
    - E. Do not attempt to clean up a release
    - F. Asbestos should always be handled wet to help prevent fibers from being released. If asbestos is soaked with water or a mixture of water and liquid detergent before it is handled, the fibers are too heavy to remain suspended in the air.
  5. Respiratory protection is mandatory when asbestos dust is above the PEL.
    - A. Safety shall approve respirator use
    - B. A dust mask is not acceptable because asbestos fibers will pass through it
  6. Housekeeping.
    - A. Never dry sweep suspected asbestos dust.
    - B. Use a HEPA filter equipped vacuum when cleaning asbestos dust. Dusting, sweeping, or vacuuming dry asbestos with a standard vacuum cleaner is prohibited
  7. Workers involved in cleaning up even small quantities of asbestos dust must receive training in asbestos awareness before performing the task.
  8. Asbestos Identification
    - A. There are many substances that workers contact that may contain asbestos and have the potential to release fibers.
    - B. Only rarely can asbestos in a product be determined from labeling or by consulting the manufacturer. Asbestos fibers or ACM cannot be seen without a microscope
    - C. A laboratory must analyze samples to positively identify asbestos
    - D. Samples analysis shall occur on all suspected ACM
  9. Asbestos Types There are two general types of asbestos:
    - A. Serpentine – snake-like, soft, "S" shaped structures.
      - I. Chrysotile is only member of the serpentine type; however, it accounts for approximately 95% of the asbestos used in commercial products. Chrysotile "White Asbestos" due to its natural white color.

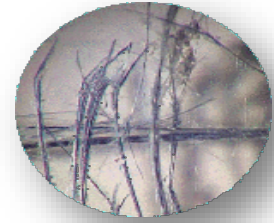
- B. Amphiboles – shorter than the Serpentine type and are more needle-like structures. This type is more water resistant and is more brittle than the Serpentine type. There are several members of the Amphibole type: Amosite, Crocidolite, Anthophyllite, and Tremolite.
  - I. Amosite, known as the “Brown Asbestos,” is the second most likely type found in buildings. It is hard to saturate and therefore hard to control. Amosite is commonly found in and on boilers and associated piping. Amosite is commonly mixed with Chrysotile.
  - II. Crocidolite, known as the “Blue Asbestos,” is used on high temperature equipment and components. Crocidolite was used on warships to control extreme temperatures associated with the operations of the propulsion devices.



**Chrysotile**



**Amosite**



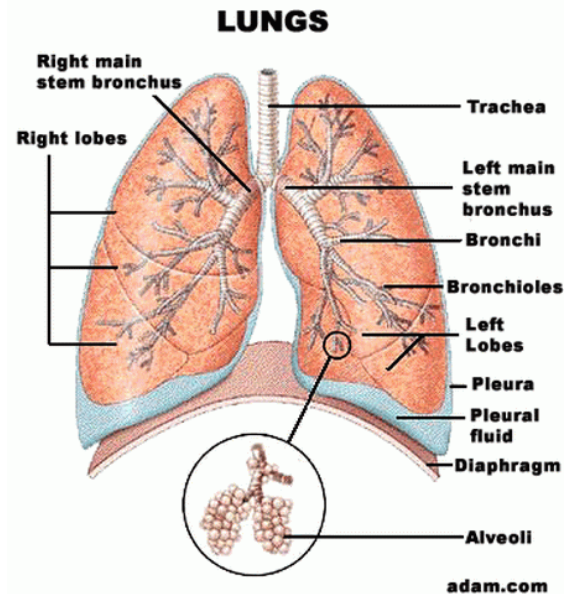
**Crocidolite**

- C. Exposure to asbestos fibers can cause serious health risks.
    - I. The major risks from asbestos come from inhaling the fibers. Asbestos is composed of long silky fibers that contain hundreds of thousands of smaller fibers.
    - II. These fibers can be subdivided further into microscopic filaments that will float in the air for several hours. Asbestos fibers can easily penetrate body tissues and cause disabling and fatal diseases after prolonged exposure.
  - D. Although exposure to asbestos is potentially hazardous, health risks can be minimized.
    - I. In most cases, the fibers are released only if the asbestos containing materials (ACM) are disturbed.
    - II. Intact and undisturbed asbestos materials do not pose a health risk.
    - III. The mere presence of asbestos does not mean that the health of workers is endangered. When ACM is properly managed, release of fibers into the air is prevented or minimized, and the risk of asbestos related disease can be reduced to a negligible level.
    - IV. However, asbestos materials can become hazardous when they release fibers into the air due to damage, disturbance, or deterioration over time.
  - E. The ability to recognize the kinds of material that contain asbestos, knowing under what conditions they are dangerous, and understanding basic safety precautions, are all important in keeping exposures to a minimum.
10. Friable and Non-Friable Asbestos
- A. Friable Asbestos: The potential for a product containing asbestos to release fibers depends on its degree of friability.
    - I. Friable asbestos material is any material containing more than 1% asbestos and that when dry can be crumbled, pulverized, or reduced to powder by hand pressure, releasing fibers into the air.
    - II. Friable ACM is found primarily in building areas not generally accessible to the public, such as boiler and machinery rooms. For example, asbestos insulation around pipes and boilers is considered friable
  - B. Non-Friable Asbestos: Non-friable asbestos material is any material containing more than 1% asbestos and that when dry cannot be crumbled, pulverized, or reduced to a powder by hand pressure.
    - I. Asbestos that is tightly bound with another material is considered non-friable and will only release fibers if sanded, cut, or broken. Examples of non-friable materials are floor tiles, asphalt roofing shingles, and mastics.
11. Asbestos Containing Materials (ACM) - Asbestos was used because it was available in the natural environment and because of its relatively low cost to use and manufacture. Asbestos was attractive because it had unique characteristics including its ability to insulate, not burn, chemical resistant, high strength, and its easily incorporated into products
- A. Fireproofing for steel
  - B. Insulation for boilers, tanks, pipe
12. Asbestos Categories Identified by the EPA

- A. Surfacing Materials ACMs sprayed or troweled on surfaces for acoustical, decorative, or fireproofing purposes. This includes acoustical plasters.
- B. Thermal System Insulation (TSI) – reduced the heat transfer and/or prevent condensation on pipes, tanks, boilers, ducts, and tunnels. Some examples are corrugated insulation (air cell), calcium/magnesium (mag block), mudded fittings that include patching compounds.
- C. Miscellaneous Materials – made up of mostly non-friable materials that include floor tiles, ceiling tiles (friable), transite board, mastics, fire brick, fire doors, shingles, joint cloth.

13. Anatomy of the Lung

- A. Since the primary health effects due to asbestos exposure are on the lungs, it is important to know how the respiratory system works
- B. Air passes through the mouth and nose into the windpipe, which splits into two smaller airways called the bronchi.
- C. The bronchi divide into smaller and smaller tubes which terminate into air sacs called alveoli.
- D. It is in these air sacs that oxygen is absorbed into small blood vessels and carbon dioxide passes out of the blood.
- E. Particles reaching the tiny air sacs are engulfed by large cells called macrophages. However, because asbestos is a mineral fiber they are often unsuccessful.
- F. When this occurs, the macrophages deposit a coating on the fiber and may form scar tissue around it.



14. Asbestos Exposure and Potential Associated Health Risks

The health risks associated with exposure to asbestos occur when it is disturbed and releases fibers into the air. To reduce exposure, it is important to know where asbestos is located and to minimize activities that will release fibers into the air. The potential for a particular form of asbestos to release fibers will depend on several factors including the degree of friability, wear, age, and location.

- A. Routes of Exposure to asbestos are inhalation and ingestion
- B. Health Effects associated with asbestos exposure are respiratory diseases, increased rate of kidney, esophageal (throat), laryngeal, stomach, and intestinal cancers.
- C. Symptoms of exposure are not immediate after exposure and can take up to 40 years to show signs of the disease. This delay is called Latency Period, which is the time from exposure to the time an individual is diagnosed with a disease. The latency period for asbestos related diseases is between 20 and 40 years
- D. Asbestos related diseases
  - I. Asbestosis is a non-cancerous, chronic respiratory disease caused by an accumulation of asbestos fibers in the lungs. The fibers cut the air sacs and cause scar tissue to form.
    - 1) Even after exposure to asbestos has stopped, scar tissue will continue to form around existing scar tissue and fibers in the lungs.
    - 2) The scarring reduces the capacity of the lung to take in air resulting in shortness of breath, coughing, and fatigue.
    - 3) Asbestosis - As the disease worsens, shortness of breath occurs even at rest. In severe cases death may be caused by respiratory or cardiac failure. Asbestosis is typically found in workers who have been exposed to large doses of asbestos over a long time. The greater the asbestos exposure the more likely asbestosis will develop.
    - 4) It may take 15-30 years for the disease to develop. Because the presence of asbestosis indicates that workers have been exposed to a large dose of asbestos, they are at greater risk for lung cancer.
  - II. Lung Cancer - Exposure to asbestos has been linked to an increased risk of lung cancer. Symptoms include cough, chest pain, and blood-streaked sputum. The pain is usually felt as a persistent ache unrelated to the cough.
    - 1) Lung cancer has a latency period of 15-20 years.
    - 2) Exposure to asbestos and cigarette smoking combine to create a significantly higher risk of developing lung cancer than would be expected from each substance alone. A smoker exposed to asbestos may have 50-100 times the risk of developing lung cancer compared to a non-exposed non-smoker.
  - III. Mesothelioma is an extremely rare cancer of the thin membrane that lines the chest and abdomen.



- 1) Most incidences of mesothelioma have been traced directly to a history of asbestos exposure.
  - 2) Symptoms include shortness of breath, pain in the walls of the chest, or abdominal pain.
  - 3) Mesothelioma spreads very rapidly and is always fatal.
  - 4) It has a latency period of approximately 40 years.
  - 5) Mesothelioma is more likely to be found among workers who were first exposed to asbestos at an early age, such as in school.
- IV. Other Diseases -There are no known immediate effects associated with exposure to asbestos. There is no evidence that asbestos fibers can penetrate the skin. However, some workers have experienced irritation and a rash from exposure. There is some evidence suggesting that swallowing asbestos fibers may cause cancers of the digestive tract and may be carried to other parts of the body after being absorbed into the bloodstream.
- E. Everyone has probably been exposed to asbestos because it is so widely used. However, the health risks associated with asbestos are directly related to the amount and frequency of exposure. Decreasing exposure to asbestos will decrease the health risks associated with it. This can be done by following safe work practices and taking proper precautions.

**15. Medical Surveillance**

- A. Employees who may be exposed to airborne asbestos fibers at or above the Permissible Exposure Limit (PEL)/Excursion Limit will be placed in an annual medical surveillance program per the requirements of 20 CFR 1910.1001 and 29 CFR 1926.1101.
- B. A licensed physician supervises medical exams and procedures.
- C. Medical surveillance is at no cost to employees.
- D. All documentation must be kept for 30 years.

**16. Program Review shall occur at least once a year.****TRAINING**

1. All employees who work in areas that contain, or may contain, asbestos require training prior to initial assignment, and on an annual basis.
2. Training shall include at least the following:
  - A. Information about the potential adverse health effects of asbestos exposure
  - B. Instruction about the use and care of appropriate protective equipment (including protective clothing and respiratory protection)
  - C. Information about specific work practices for working safely around asbestos containing materials
3. All projects where there is a potential of asbestos containing material will have a specific "Asbestos Compliance Plan" in place, and employees shall be trained on this specific plan.
4. Training documentation is filed with the employee training records.

**RECORDKEEPING**

All Wilkinson Electric Locations shall keep and maintain their records separately and in accordance with ALL State and Federal Standards

**FORMS**

Not applicable at this time.



## Lead Awareness Program

### PROGRAM STATEMENT

Wilkinson Electric recognizes the OSHA Lead Standard; CFR 29 1926.62, applies to all construction work where an employee may be exposed to lead. Work related exposures includes: construction, alteration, repair, or renovation of structures, substrates, or portions or materials containing lead levels above the Action Level, 30 micrograms per cubic meter of air ( $30 \mu\text{g}/\text{m}^3$ ) as an 8-hour time-weighted-average (TWA). Wilkinson Electric employees may perform some intermittent tasks that involve a brief exposure to trace amounts of lead that is incidental to their primary work in which the task duration is very short and expected to be below the Action Level ( $30 \mu\text{g}/\text{m}^3$  as an 8-hour TWA).

### DEFINITIONS

1. Abatement - is a comprehensive process to eliminate exposure to lead which includes containment, cleanup, disposal, and testing and involves lead-based paint.
2. Action Level: Employee exposure to an airborne concentration of lead of 30 micrograms per cubic meter ( $30 \mu\text{g}/\text{m}^3$ ) of air averaged over an 8-hour period.
3. Administrative Controls - are written policies such as site safety plans and SOPs which remove or prevent exposure to physical, biological, or chemical hazards.
4. Air Purifying Respirator (APR) - is a respirator with an air purifying filter cartridge that removes specific contaminants from the ambient air.
5. Blood Lead Level (BLL): A measure of the amount of blood lead present in an individual's blood.
6. Cal/OSHA - is the California Occupational Safety and Health Administration.
7. Certification - is a document given by the Department of Health Services (DHS) for Lead Inspector/Assessors, Project Designers, Project Monitors, and Supervisors.
8. Clearance - is an on-site limited investigation to determine whether abatement or lead activities have been completed.
9. Components: include individual building components such as a door or window sill.
10. Containment: is the process for protecting both workers and the environment by controlling exposures to lead dust and debris created during abatement.
11. Certified Renovator: A worker who has taken the training and testing that permits him or her to remove lead-containing paint and to supervise other trained workers at this task. Certified Renovator can provide training to other workers per EPA-approved curriculum.
12. Child-Occupied Facility: Building, or portion of a building, constructed prior to 1978, visited regularly by the same child, under 6 years of age, on at least two different days within any week, provided that each day's visit lasts at least three hours and the combined weekly visit lasts at least six hours, and the combined annual visit lasts at least 60 hours.
13. Dust Wipes - are samples collected and analyzed to determine the lead dust concentration.
14. Engineering Controls - are measures such as fences, safety guards, and ventilation systems to contain, control, or reduce exposure to lead dust and debris.
15. Exposure - means inhalation or absorption of a concentration of a contaminant.
16. EPA Pamphlet: The lead hazard information pamphlet given to homeowners and tenants prior to beginning removal of lead paint.
17. Exposure to lead above  $50 \mu\text{g}/\text{m}^3$  requires that Wilkinson Electric take special precautions to ensure employee safety.
18. Final Inspection - is an inspection by a qualified inspector or an industrial hygienist to determine whether abatement and cleanup are complete.
19. Historical Data: Refers to actual employee monitoring data collected within the last 12 months. The employer must have performed an exposure assessment using this data.
20. High Efficiency Particulate Air (HEPA) - describes a filter capable of removing from air particles larger than 0.3 microns at 99.97% efficiency or greater.

21. Initial Determination: Each employer who has a workplace or work operation covered by this standard shall determine if any employee may be exposed to lead at or above the action level.
22. Lead: Metallic lead, all inorganic lead compounds, and organic lead soaps are excluded from this definition per OSHA are all other organic lead compounds.
23. Lead-Based Paint (LBP): Paint containing at least 0.7 milligrams of lead per square centimeter (per OSHA) (or 1.0 milligram of lead per square centimeter of surface area, per EPA), or 0.5% lead by weight.
24. Lead Abatement: Set of measures designed to permanently remove lead-based paint or lead-based paint hazard.
25. Lead Exposure Assessment: Determination of employee exposure to lead by sampling/ monitoring the employee's regular exposure to lead, typically in an 8-hour work day.
26. Lead Action Level (AL) - is when employee exposure to lead reaches 30  $\mu\text{g}/\text{m}^3$  and requires the implementation of control measures to reduce exposures.
27. Lead-based Paint - is a surface coating containing by weight more than 0.5% lead. Before sampling assume that paint applied before January 1, 1993 is lead-based.
28. Lead-contaminated Dust - contains at least the following amounts of lead for each building component: 40  $\mu\text{g}/\text{ft}^2$  on interior floor surfaces, 250  $\mu\text{g}/\text{ft}^2$  on interior window surfaces, and 800  $\mu\text{g}/\text{ft}^2$  on exterior floor and window surfaces.
29. Lead Management - is an abatement strategy by which lead is left in place and encapsulated or covered to reduce exposure.
30. Lead Related Construction - means any construction activity that may result in significant exposure to lead. It involves work trigger tasks or building materials containing over 0.06% lead by weight.
31. Local Exhaust - capture a contaminant at or near its source.
32. Micrograms ( $\mu$ ) - is one millionth of a gram.
33. Micron ( $\mu$ ): A unit equal to one millionth.
34. Negative Exposure Assessment (NEA) - means a demonstration that employee exposures during an operation are expected to be consistently below the PEL.
35. Permissible Exposure Limit (PEL): The legal lead exposure levels set by OSHA and Cal/OSHA with concentrations less than fifty micrograms per cubic meter (50  $\mu\text{g}/\text{m}^3$ ) of air averaged over an 8-hour period.
36. Renovation: Modification of an existing structure, or portion of an existing structure that results in the disturbance of painted surfaces.
37. Parts per Million (PPM) - is the proportional weight of one part of lead per weight of the total amount of material expressed as lead weight/million parts weight material.
38. Personal Exposure Monitoring - is the air monitoring of an employee breathing zones to determine the amount of contaminant to which they are exposed.
39. Personal Protective Equipment (PPE) - includes gloves, coveralls, respirators, and other items designed to reduce exposure to specific hazards.
40. Regulated Areas - are established areas within which protective measures are taken and which are posted with warning signs.
41. Target Housing: Any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless and child who is less than 6 year of age resides or is expected to reside in such housing) or any zero-bedroom dwelling.
42. Trigger Tasks - are specified tasks performed when lead is present and that trigger basic protective measures.
43. Zinc Protoporphyrin - is a test which indicates the effect of lead on the blood-forming system and which is required when a BLL is performed.

**RESPONSIBILITIES**

1. Employee Responsibilities
  - A. Participate in all safety training

- B. Wear PPE as required for each task, tool, and for all identified hazards in accordance with this standard
  - C. Adhere to the Lead Awareness Program and Respiratory Program requirements
2. Supervisor Responsibilities
- A. Ensure all employees are trained prior to job assignment where the risk of exposure to lead may be present
  - B. Ensure all required PPE and Respiratory Protection are available for use
  - C. Ensure proper signage and labeling requirements are met and in accordance with the 1926.62 OSHA standard
3. Competent Person
- A. Competent Person will execute the site-specific lead exposure program and capable of identifying existing and predictable lead hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate the hazard.
4. Safety Department Responsibilities
- A. Provide training to all employees:
    - I. Who are subject to exposure to lead at or above the action level on any day
    - II. Who are subject to exposure to lead compounds which may cause skin or eye irritation (lead arsenate, lead azide)
  - B. Provide project support in hazard identification and lead compliance
5. Employer Responsibilities
- A. Provide appropriate respiratory protection in accordance with the 1926.62 OSHA Standards and NIOSH Table 3.
  - B. Provide appropriate PPE in accordance with this standard
  - C. Provide changing area and hand washing facilities
  - D. Provide Medical Surveillance and Biological Monitoring in accordance with this standard;
    - I. To consist of blood sampling and analysis for lead and zinc protoporphyrin
  - E. Provide training and resources in accordance with the OSHA Lead Standard, Respiratory Protection Standard and Hazard Communication Standard

### PROGRAM REQUIREMENTS

Wilkinson Electric understands the health risks associated with exposure to lead. To protect employees during work task activities associated with renovation, surface preparation, power tool cleaning, drilling or cutting paint/window caulk/glaze, other materials suspected to contain lead shall be identified prior to disturbance:

1. Identify the lead hazard by testing for lead content – review report with Safety
- A. TDH > 0.5 % - proceed using lead compliance plan
  - B. TDH < 0.5 % - proceed with caution – review hazard based on amount of dust potential (*example: sanding/torching – recommend use of lead compliance plan*)
  - C. < 0.01 – may use normal construction techniques
  - D. Assumed to contain lead
    - I. Proceed using lead compliance plan and safe work practices
    - II. Possible lead containing materials or tasks that may cause exposure include:
      - 1) Roofs
      - 2) Cornices
      - 3) Electrical conduit
      - 4) Lead based paint
      - 5) Mortar
      - 6) Abrasive blasting
      - 7) Iron work, Welding, cutting and burning steel structures
      - 8) Carpentry
      - 9) Plumbing, Soft solder (old plumbing tinsplate & copper pipe joints)
      - 10) Power tool cleaning without dust suppression
      - 11) Clean-up activities where dry abrasives are used
      - 12) Manual scraping and sanding of lead-based paint or mortar
      - 13) Spray painting with lead-based paint
2. Site Specific Lead Compliance Program
- Wilkinson Electric shall protect workers against lead exposure at or above the PEL is 50 µg/m<sup>3</sup> 8-hour TWA. Any exposure to lead at the Action Level, 30 µg/m<sup>3</sup> 8-hour TWA, shall engage the compliance activities outlined in the standard. Wilkinson Electric performs intermittent tasks that may create an exposure to lead but cannot foresee any exposure to lead at the action level.

- A. Hazard Assessment – unlikely exposure; however, if an exposure at or above the Permissible Exposure Level is suspected, Wilkinson Electric shall perform the following actions:
- B. Medical Surveillance begins when exposure is at or above the Action Level for 30 days or more a year; when an employee notifies Wilkinson Electric they have symptoms of lead exposure; employees have difficulty breathing during respirator use or fit test; employee desires medical advice concerning the effects of past or current lead exposure (at no cost to employee) This program shall meet the requirements in 29 CFR 1926.62 (j), (k) (Physical exam and medical/work history).
- C. Medical Exams and Biological Monitoring
  - I. Employee shall provide a detailed work and medical history, participate in a full medical exam
  - II. (requirements of the OSHA 29 CFR 1926.62 Lead Standard)
  - III. Medical Removal provisions will be made to remove employees from lead hazards in the working environment when blood levels meet the criteria per 29 CFR 1910.1025 Table 4 (k)(1)(i). Full benefits will be maintained.
  - IV. Biological Monitoring shall be performed by an OSHA approved lab and be accurate (to a confidence of 95% with a plus or minus 15%, or 6 µg/dl whichever is greater. If the employee's airborne lead level is at or above the action level for 30 days or more per calendar year.
    - 1) At least every two months for the first six months, and every six months thereafter until blood samples & analysis are acceptable
    - 2) At least every two months for employees whose last blood sampling and analysis indicated a blood lead level at or above 40 µg/dl; and
    - 3) At least monthly while an employee is removed from exposure due to an elevated BLL.
- D. Air Monitoring - Wilkinson Electric does not anticipate the use or need for air monitoring as there are no tasks in which employees are exposed above the Action Level 30 µg/m<sup>3</sup> 8-hour TWA.
  - I. Initial air monitoring shall be performed when lead exposure is suspected or expected to exceed the Action Level
  - II. A certified industrial hygienist shall perform air sampling in accordance with the recommended methods defined by NIOSH
  - III. Air monitoring results determine lead levels and the levels of any other hazardous contaminants
  - IV. Full shift personal samples to identify employee's regular duty exposures to lead
    - 1) Results below Action Level do not require further testing
    - 2) Results above Action Level and below PEL, monitoring shall be repeated at least every 6 months until at least two measurements taken at least 7 days apart are below the action level.
- E. Lead Exposure Control Methods
  - I. Engineering controls used to protect workers include exhaust ventilation, process or equipment modification, material substitution, component replacement, and isolation or automation, encapsulation
    - 1) Lead containing dust shall be removed daily with HEPA-filter vacuum or wet method
    - 2) Proper cleanup of lead dust/paint chips (wet clean/heap vacuum)
    - 3) Tools shall be modified in accordance with the tool manufacturer and instructions to include dust controls and/or HEPA-filter vacuum attachments
  - II. Administrative control measures include lead warning signs, barrier tape if indoors or where pedestrians could be exposed (exposure above PEL), scheduling work when there is a lower risk of lead exposure
  - III. PPE shall be used in accordance with the task and risk of exposure; protective clothing such as coveralls shall be laundered at least weekly and properly disposed of or repaired or replaced as necessary;
    - 1) Protective clothing shall not create heat stress
    - 2) Protective clothing shall not be worn home
  - IV. Use of respiratory protection 29 CFR 1910.134; intermittent tasks performed by Wilkinson Electric personnel do not risk action level exposure to any hazardous substance.
    - 1) Voluntary respiratory protection is available in accordance with Appendix D of the 29 CFR 1910.134 Respiratory Protection Program and Wilkinson Electric 21.1 Respiratory Protection Program
    - 2) In the event exposure levels have increased to a suspected action level, employees will use their **STOP WORK AUTHORITY** to remove themselves from exposure until a new hazard assessment can be conducted.
- F. Personal hygiene
  - I. All workers exposed to Lead, or any other hazardous substance shall wash their hands, face and remove contaminated clothing prior to all breaks including lunch.
  - II. If exposure exceeds PEL, lunchroom, showers and changing facilities will be provided.

### 3. Lead Awareness

- A. Lead (Pb) is a heavy metal at room temperature and pressure. Exposure is commonly absorbed by inhalation of lead containing dust, fume or mist and ingested or swallowed. Once in the bloodstream, the body will expel some of the lead and some will stay in the system. If exposure is continuous, the lead builds up in the blood stream and is absorbed into tissue causing irreversible damage.
  - I. Can be modified and combined with other substances to form numerous lead compounds
  - II. Health hazards include damage to the central nervous system, cardiovascular system, reproductive system, hematological system and kidneys and high enough doses can be toxic
    - 1) Short-term (Acute Exposure): in days, can cause encephalopathy (affecting brain leading to seizures, coma, and death
    - 2) Extended, Long-term (chronic): overexposure can result in severe damage to the CNS, particularly the brain, damage blood-forming, urinary and reproductive systems
    - 3) Symptoms: Loss of appetite, constipation, nausea, lethargy, headaches, fine tremors, colic, metallic taste in mouth, nervous irritability, hyperactivity, muscle and joint pain, anxiety, pallor, insomnia, dizziness, and numbness
4. Disposal and Clean-up
  - A. The work area shall be properly cleaned (wet wiped/HEPA vacuumed) and visibly inspected for the presence of lead dust/debris by the competent person before the area is opened to the public.
  - B. Lead based paint, caulking, or glazing waste shall be collected at the job site and containerized / stored in a secure, closed and properly labeled container at Physical Plant. TCLP testing will be conducted to determine if (lead dust/debris) are considered hazardous waste or construction debris. Contact the Wilkinson Electric Safety Department when container is full to arrange sampling and analysis.
  - C. Labeling Requirements for contaminated protective clothing, equipment and debris.  
**DANGER: CLOTHING AND EQUIPMENT CONTAMINATED WITH LEAD. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM. DO NOT EAT, DRINK OR SMOKE WHEN HANDLING. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS**

#### TRAINING

1. Employee shall be trained when there is a suspected or risk of exposure
  - A. Refresher training shall occur as needed or when employee exhibit the need for additional training
2. Wilkinson Electric shall provide formal classroom education and training that includes:
  - A. Hazard awareness and identification (29 CFR 1926.59, 1910.134 and 1910.1200)
  - B. Safe work practices, warning signs
  - C. Respiratory protection for lead exposure in accordance with Table 1 of the lead standard 29 CRR 1926.62(f)(3)(i)
  - D. Air monitoring
  - E. Medical Surveillance Program
  - F. Medical Records accordance with OSHA Standard, 29 CFR 1910.1020
3. Supervisors should continuously communicate their expectation of the importance of lead poisoning prevention and monitor work to ensure it is conducted in compliance with this program.

#### RECORDKEEPING

1. Medical records shall be maintained for the duration of employment plus 30 years, and in accordance with the 29 CFR 1910.1020
  - A. Upon business closure, records can be sent to the Director of NIOSH
  - B. All air sampling and assessments and medical results shall be made available to affected employees and in accordance with the 29 CFR 1910.1020 standard.
2. Injury and Illness records shall be kept in accordance with 29 CFR 1904 Recordkeeping and Reporting Occupational Injuries and Illness

#### FORMS

- 26.1.1 Lead Awareness NIOSH Requirements: Table 3 Recommended Respiratory Protection for Inorganic Lead Exposure & Table 4 Employer Responsibilities Blood Lead Level (BLL) Concentration Action Required





## Lead Awareness NIOSH Requirements

<b>Table 3. NIOSH recommended respiratory protection for workers exposed to inorganic lead</b>	
<b>Condition</b>	<b>Minimum respiratory protection*</b>
Less than or equal to 0.5 mg/m <sup>3</sup> (10 x PEL <sup>**</sup> )	Any air-purifying respirator with a high-efficiency particulate filter
Less than or equal to 1.25 mg/m <sup>3</sup> (25 x PEL)	Any powered, air-purifying respirator with a high-efficiency particulate filter, or Any supplied-air respirator equipped with a hood or helmet and operated in a continuous-flow mode (for example, type CE abrasive blasting respirators)
Less than or equal to 2.5 mg/m <sup>3</sup> (50 x PEL)	Any air-purifying, full-facepiece respirator with a high efficiency particulate filter, or Any powered, air-purifying respirator with a tight fitting facepiece and a high-efficiency particulate filter
Less than or equal to 50 mg/m <sup>3</sup> (1,000 x PEL)	Any supplied-air respirator equipped with a half-mask and operated in a pressure-demand or other positive pressure mode
Less than or equal to 100 mg/m <sup>3</sup> (2,000 x PEL)	Any supplied-air respirator equipped with a full face-piece and operated in a pressure-demand or other positive-pressure mode
Planned or emergency entry into environments containing unknown concentrations or concentrations above 100 mg/m <sup>3</sup> (2,000 x PEL)	Any self-contained breathing apparatus equipped with a full facepiece and operated in a pressure-demand or other positive-pressure mode, or  Any supplied-air respirator equipped with a full face-piece and operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in a pressure-demand or other positive-pressure mode
Firefighting	Any self-contained breathing apparatus equipped with a full facepiece and operated in a pressure-demand or other positive pressure mode
Escape only	Any air-purifying, full- facepiece respirator with a high-efficiency particulate filter, or Any appropriate escape-type, self-contained breathing apparatus

\* Only NIOSH/MSHA-approved equipment should be used.

\*\* Multiple of the OSHA PEL for general industry.

<b>Table 4. Actions required by the OSHA general industry standard for various lead concentrations in blood (BLL)</b>		
<b>Number of tests</b>	<b>BLL* (µg/dl)</b>	<b>Action required</b>
1	Greater than or equal to 40	Notification of worker in writing; medical examination of worker and consultation
3 (average)	Greater than or equal to 50	Removal of worker from job with potential lead exposure
1	Greater than or equal to 60	Removal of worker from job with potential lead exposure
2	Less than 40	Reinstatement of worker in job with potential lead exposure

\* In the OSHA general industry standard for lead, BLL's are reported in micrograms per 100 grams (µg/100 g) of whole blood, which is approximately equal to µg/dl



## Benzene Awareness Program

### PROGRAM STATEMENT

This program was developed to address the hazards associated with potential exposures to Benzene in the work place. Only qualified and trained personnel shall perform work activities in areas where potential contact with Benzene exists. Employees may be exposed to Benzene while working in heavy industrial sites, such as pipeline and refining operations.

### DEFINITIONS

1. Benzene is an organic chemical compound with the chemical formula  $C_6H_6$ . The benzene molecule is composed of six carbon atoms joined in a ring with one hydrogen atom attached to each. As it contains only carbon and hydrogen atoms, benzene is classed as a hydrocarbon.

### RESPONSIBILITIES

1. Employees shall adhere to all program requirements
  - A. Attend training and all safety meetings
  - B. Notify Supervisor immediately if there is a risk of exposure
2. Supervisors
  - A. Shall stop work if a risk of exposure to Benzene is possible
  - B. Shall ensure all employees, who may be exposed to Benzene, receive training

### PROGRAM REQUIREMENTS

1. Safety Task Assignment
  - A. The *Safety Task Assignment (STA)* (Section 3.4) shall address hazards relating to Benzene for each work assignment where potential exposure to Benzene may exist.
  - B. This hazard analysis process shall identify all hazards associated with the work activity, including special emphasis to potential exposure to Benzene.
  - C. Engineering and work practice controls shall be developed to address the recognized hazards.
  - D. Personal protective equipment shall be utilized in accordance with PPE sections of this program. The *STA* shall be revised, as needed, to address additional hazards that may develop if the job scope changes, unforeseen problems develop, monitoring data reflects exposure changes, or any other condition alters the work activity or working environment.
  - E. The Project Manager, Supervisors, affected employees, and designated employee representatives shall have access to the written Benzene Awareness Program and any job-related *Safety Task Assignment*.
2. Control Methods
  - A. Atmospheric Monitoring – Field Test
    - I. Direct reading indicator tubes are to be used to measure airborne Benzene concentration prior to starting work on a piece of equipment or in an area where Benzene or other aromatic hydrocarbons are suspected.
    - II. If monitoring reveals exposure at or above the action level, but at or below the TWA, monitoring shall be repeated at least every year.
    - III. If monitoring reveals exposure above the TWA, monitoring shall be repeated at least every six months.
    - IV. Monitoring for STEL shall be repeated as necessary to evaluate for short-term exposures.
    - V. Test results of the direct reading indicator tubes will determine the minimum PPE requirement for protection against exposure.
  - B. Exposure Controls
    - I. Based on monitoring data, engineering controls and work practice controls will be established in areas where permissible limits are exceeded in order to reduce Benzene exposure, if possible.
    - II. Employees shall not enter areas or confined locations known or suspected to be hazardous for breathing as a result of contamination with Benzene, Toluene, or Xylene, unless the proper respirator is utilized.
    - III. Prior to entering Benzene process units, employees must report to the Control Room Operator. The Operator will advise of the current Benzene condition in the unit, as reported by the unit's Benzene Analyzer.
  - C. Regulated Area
    - I. A regulated area shall be established whenever airborne concentration exceeds, or can be expected to exceed, either the permissible exposure limit (PEL) of 1 ppm for an 8-hour time-weighted average (TWA) or the short-term exposure limit (STEL) of 5 ppm over a 15-minute period.
    - II. An initial area of 50 feet downwind, 20 feet upwind, and 20 feet to either side will be barricaded and considered a Benzene Restricted Area until the area can be tested.
    - III. The regulated area must be clearly designated with appropriate warning signs to minimize the number of employees exposed to Benzene and limit access to authorized personnel only.
    - IV. The entrance to the regulated area will be barricaded and demarcated with the following warnings:

- 1) DANGER BENZENE
- 2) NO SMOKING
- 3) CANCER HAZARD
- 4) FLAMMABLE
- 5) AUTHORIZED PERSONNEL ONLY
- 6) RESPIRATOR REQUIRED
- V. The opening of any line or equipment containing, or have contained benzene, shall be treated as a regulated area.
- VI. It is the responsibility of the crew to properly barricade the area and place the Benzene warning signs in the appropriate locations.
- VII. Crossing Benzene barrier tape without authorization will result in disciplinary action.
- VIII. Fire extinguishers must be readily available where Benzene is used or stored.
- D. Personal Protective Equipment
  - I. Refer to the *Personal Protective Equipment (PPE)* section of this manual for detailed information on PPE requirements and related issues (Section 10).
  - II. The following PPE shall be worn, as a minimum, for the initial opening of any process line or equipment:
    - 1) 1/2 mask respirator with organic canister. **Note: Upgrade respiratory protection may be required based on the test results of the direct reading tubes.**
    - 2) Rubber chemical gloves
    - 3) Slicker suit
    - 4) Rubber boots
    - 5) Face shield
- E. When engineering controls are not feasible (i.e., maintenance and repair of process equipment, turnarounds, and emergencies), personal protective equipment must be worn to reduce exposures below permissible limits.

I. Selection of Respiratory Protection

Benzene Concentration	Respirator Type
1-10 ppm	1/2 Mask Air Purifying Respirator (APR) Organic Vapor Cartridge
10-50 ppm	Full Face APR Organic Vapor Cartridge
50-1000 ppm	Supplied Air - Full Face
>1000 ppm	Self-Contained Breathing Apparatus with Full Face Piece*

\* Refer to the "Respiratory Protection Program" for detailed information pertaining to respirator usage.

- II. Gloves, slicker suit, and face shield must be worn any time contact with liquid hydrocarbon is possible. This includes each individual line or equipment opening of any process containing Benzene or to have contained Benzene.
- III. All PPE will meet the requirements of CFR 1910.133 and be provided at no cost to the employee.

3. Benzene Exposure and Health Risks

A. Physical Characteristics

- I. Benzene is a colorless to light yellow liquid with an aromatic odor.
- II. Benzene's physical characteristics allow it to remain in liquid state at atmospheric pressure and ambient temperature; however, its volatility remains very high.
- III. Benzene is extremely flammable and, in a liquid state, releases vapors that will readily ignite at ambient temperatures. Vapors burn with a smoke flame.
- IV. Benzene's safety and health information is contained in this standard and available in the Safety Data Sheet found in the Wilkinson Electric Office Trailer or in the units where Benzene is present.

B. Exposure Limits

- I. The OSHA Standard that regulates Benzene exposure is contained in CFR 29 Part 1910.1028.
- II. Action Level – an airborne concentration of Benzene of 0.5 ppm calculated over an 8-hour time-weighted average.
- III. Permissible Exposure Limits (PEL) – the employee shall not be exposed to an airborne concentration of Benzene in excess of one (1) part of Benzene per million parts of air (1 ppm) as an 8-hour time-weighted average (TWA).
  - I. Short-Term Exposure Limit (STEL) – the employee shall not be exposed to an airborne concentration of Benzene in excess of five (5) ppm as averaged over any 15-minute period. Short-term exposure can reasonably be expected where tanks are opened, filled, unloaded, gauged, where process equipment is opened, and where Benzene is used as a cleaning agent or solvent.

C. Exposure Hazards

- I. Benzene is primarily an inhalation hazard; but, it can be absorbed directly into the skin or ingested through the mouth.

- II. Benzene is most noted for its long-term or chronic health effects; but, it also exhibits acute or short-term effects.
- III. Acute exposure to Benzene may affect the central nervous system, initially causing a stimulatory effect that, with continued exposure, is followed by drowsiness and fatigue.
- IV. Continued high level exposures will result in progressive sedation, tremors, convulsions, and death due to cardio-respiratory collapse.
- V. If someone is overcome by Benzene vapors or is suspected to have suffered a massive exposure, immediate first aid must be rendered.
- VI. Chronic, prolonged exposure to Benzene can have harmful effects on the blood forming (or hematopoietic) organs in the body. This system is the primary target for the toxic effects of Benzene. The principal effects involve suppression of the production of white blood cells (leukocytes), red blood cells, and platelets.
- VII. Continued chronic exposure to even low levels of Benzene may result in cancer of the white blood cells (leukemia).

#### D. Exposure Symptoms

- I. Early signs of Benzene exposure may include the following non-specific findings:
  - 1) Headache
  - 2) Loss of appetite
  - 3) Bleeding (nose or gums)
  - 4) Easy bruising
- II. Exposure to high concentrations of Benzene can cause and be recognized by:
  - 1) Intoxication/dizziness
  - 2) Breathlessness
  - 3) Eye, nose, and throat irritation
  - 4) Headache
  - 5) Convulsions

#### 4. Accidental Exposure Response

- A. If an employee comes into skin contact with liquid Benzene, they must proceed immediately to the closest safety shower and wash with soap and water, removing all contaminated clothing, including shoes. Report incident to the Project Supervisor and seek medical attention at the First Aid Station. Exposed employee will then be referred to a physician for evaluation and/or treatment.
- B. If an employee's eyes are exposed to liquid Benzene, the eyes must be flushed immediately with large amounts of water. Proceed to the nearest eye wash station and flush for at least 15 minutes. Report incident to the Project Supervisor and seek medical attention at the First Aid Station. Exposed employee will then be referred to a physician for evaluation and/or treatment.
- C. If exposed Benzene vapors, immediately move to an uncontaminated area, report incident to the Jobsite Supervisor, and seek medical attention at the First Aid Station. The exposed employee will then be referred to a physician for evaluation and/or treatment.
- D. If an employee ingests Benzene, he should drink plenty of water. Do not induce vomiting. Report incident to the Project Supervisor and seek medical attention at the First Aid Station. Exposed employee will then be referred to a physician for evaluation and/or treatment.

#### 5. Medical Surveillance

- A. Medical surveillance shall be made available for employees who are, or may be, exposed to Benzene at or above the action level for thirty (30) or more days per year or above the PELs for ten (10) or more days per year.
- B. Initial and Periodic Medical Exams
- C. Employees who meet the medical surveillance requirements will receive initial assignment and annual medical evaluations.
- D. The medical evaluation will include a detailed occupational history, complete medical examination, complete blood count, and appropriate additional tests as deemed necessary by the examining physician.
- E. The periodic examination shall be conducted annually following the previous examination.
- F. Medical Evaluation as a Result of Emergency Exposures
  - I. In the event of exposure to an unforeseen release of Benzene-containing vapor or liquid, the employee shall contact his Project Supervisor immediately. The employee will be taken to our local physician and be required to provide a urine specimen for a phenol level test.
  - II. If the urine specimen indicates an abnormal condition (i.e., excessively high urine phenol), a complete blood count with differential will be obtained. Further evaluations may be made as determined by the treating physician.
  - III. Following receipt of test results, the treating physician shall provide the employee a written report of the results of the evaluation, including any recommendations for further testing.

**TRAINING**

1. All employees working in areas of potential Benzene exposure shall receive training upon initial assignment and annually thereafter as outlined below:
  - A. Benzene Awareness Training
  - B. Safety Data Sheet for Benzene
  - C. Respirator Protection and Fit Testing (see *Respiratory Protection Program*, Section 10.2)
  - D. *HAZCOM Training Module* (see Section 4.6)
  - E. Access to Employee Medical Records Training (see *Incident Investigation*, Section 23.1)

**RECORDKEEPING**

1. All Wilkinson Electric Locations shall keep and maintain their records and in accordance with ALL State and Federal Standards

**FORMS** – Not applicable at this time

## Hydrogen Sulfide Awareness Program

### PROGRAM STATEMENT

Wilkinson Electric is committed to providing a safe work environment. The Hydrogen Sulfide Awareness Program was established to address the hazards associated with potential exposure to Hydrogen Sulfide (H<sub>2</sub>S) in the workplace. Only qualified and trained personnel shall perform work activities in areas where potential contact with H<sub>2</sub>S exists.

### DEFINITIONS

1. Contingency Plan: A site specific written document that provided an organized plan for alerting and protecting
2. Exposure Level: Permissible exposure level at a time weighted average
3. Gas Detector Instrument: An instrument/detector to measure levels of H<sub>2</sub>S.
4. Hydrogen Sulfide H<sub>2</sub>S: Extremely deadly, toxic gas that in its pure state is colorless gas with a nauseating smell of rotten eggs. H<sub>2</sub>S gas is heavier than air and often collects in low areas such as sewers and why it is commonly known as sewer gas.
5. Parts Per Million: Parts of gas vapor or gas per million parts of contaminated air by volume
6. Venting: the process of discharging a material to the atmosphere through a series of piping and/or venting devices, to facility the proper and safe dispersion of toxic materials and minimize personnel exposure

### RESPONSIBILITIES

1. Employees are responsible for adhering to the program requirements.
2. Supervisors
  - A. Shall ensure employees who are assigned to work at locations where H<sub>2</sub>S may be present in any concentration are trained
  - B. Shall ensure employees are medically approved to wear respirators and trained in accordance with the Wilkinson Electric 21.1 Respiratory Protection Program.
  - C. Shall ensure employees are familiar with H<sub>2</sub>S personal monitoring and gas detection instruments
  - D. Provide necessary PPE and Respiratory Protection to perform work tasks safely.
  - E. Provide a copy of this program to employees.

### PROGRAM REQUIREMENTS

1. Potential employee exposure to Hydrogen Sulfide exists in locations such as:
  - A. Drilling operations
  - B. Recycled drilling mud
  - C. Water from sour crude wells
  - D. Blowouts
  - E. Tank gauging (tanks at producing, pipeline, and refining operations)
  - F. Field maintenance for tank batteries, wells, etc.
  - G. Amine units
  - H. Sulfur recovery units
  - I. Tail Gas units
  - J. Sour water strippers
  - K. Various other areas in the refinery and chemical industries
2. The Occupational Safety and Health Administration (OSHA) has established an acceptable ceiling concentration limit of 20 parts per million (ppm) for an 8-hour shift with a maximum peak of 50 ppm for a 10-minute period.
3. H<sub>2</sub>S is a flammable, toxic, colorless, and corrosive gas.
  - A. When first encountered at low concentrations, H<sub>2</sub>S is recognized by a rotten egg odor. Prolonged exposure to low concentrations decreases the sense of smell and may irritate the eyes. The odor is not more intense with higher concentrations. The sense of smell **should NEVER** be depended upon to detect any level of H<sub>2</sub>S.
  - B. H<sub>2</sub>S gas is soluble in water and oil and may be present in any equipment. A release may occur when equipment is drained.
4. Human physical responses to various concentrations of Hydrogen Sulfide have been reported as follows:
  - A. Typically, an Area Monitoring System has been established to alert personnel of a potential





- exposure, and to evacuate the area. In this case, Wilkinson Electric employees shall be aware of, and comply with, the Jobsite Specific Emergency Response Plan.
- B. When we must perform work activities in areas that do not have an Area Monitoring System, we must coordinate our efforts with those of the client to establish area monitoring.
- C. When a concentration of H<sub>2</sub>S at or above 20 ppm is detected, a horn shall sound to initiate the Jobsite Specific Emergency Response Plan. Any environment approaching a level above 50 ppm H<sub>2</sub>S is immediately dangerous to life and health (IDLH).
- D. Personnel shall remain out of the area until it has been determined to be safe and the all clear has sounded.
- E. All work permits shall be reissued before work can commence.
- F. Personnel entering areas where potential exposure to H<sub>2</sub>S may occur must wear a personal H<sub>2</sub>S monitor, which will be worn in the breathing zone.
- G. Personal H<sub>2</sub>S monitors should be set to alarm at 20 ppm or less. Monitors must be inspected and calibrated monthly or in accordance with manufacturer’s recommendations. Monitor records must be retained.
- H. In the event a personal H<sub>2</sub>S monitor alarms, all personnel near shall be notified and must evacuate according to the Jobsite Specific Emergency Response Plan.
- I. Remember, the concentration of H<sub>2</sub>S may be much stronger at the point of release than that detected at the monitor.
- J. When performing work that may cause a release of H<sub>2</sub>S, or when working on open equipment containing H<sub>2</sub>S, hose line air units with egress hip packs that are NIOSH certified must be used.
- K. Temporary barricades, utilizing barricade tape and warning signs, must be hung on all four sides stating, “Hydrogen Sulfide Controlled Access Area.”
- L. No one is to enter the barricaded area without proper respiratory protective equipment.
- M. Atmospheric monitoring equipment for sewer or vault entry activities shall sound an audible alarm in addition to its visual readout whenever H<sub>2</sub>S is at or above 10 ppm measured as an 8-hour time-weighted average.

H <sub>2</sub> S Concentration	Physical Response
10 ppm	Eye irritation
100 ppm	Coughing, headache, dizziness, eye irritation, loss of sense of smell
200-300 ppm	Marked eye inflammation and respiratory tract irritation after one hour of exposure
500-700 ppm	Loss of consciousness and possibly death in 30 minutes to one hour of exposure
700-1000 ppm	Rapid loss of consciousness, cessation of respiration, and death
> 1000 ppm	Unconsciousness in seconds with early cessation of respiration and death in a few minutes unless victim is removed from exposure and breathing is restored. Death may result regardless

- 5. Detection/Warning System
  - A. DO NOT use sense of smell to detect H<sub>2</sub>S
    - I. H<sub>2</sub>S Monitoring Systems vary, each location is responsible for using and maintaining these devices independently and in accordance with the manufacturers specifications.



**TRAINING**

- 1. All employees working in areas of potential Hydrogen Sulfide exposure shall receive training upon initial assignment and annually thereafter as outlined below:
  - A. Hydrogen Sulfide Awareness Training
  - B. Detection and/or Monitoring System
  - C. Wilkinson Electric 15.1.1 HAZCOM Program
  - D. Wilkinson Electric 21.1 Respiratory Protection Program

**RECORDKEEPING**

**FORMS**

Not Applicable



## Pandemic Awareness Program

### PROGRAM STATEMENT

Wilkinson Electric strives to provide a safe and healthy workplace for all employees. In an effort to address potential outbreaks of wide-spread infectious disease, Wilkinson Electric developed the Pandemic Awareness Program.

### DEFINITIONS

1. Flu Terms
  - A. Seasonal Influenza (common flu): a periodic outbreak of respiratory illness in the fall and winter (U. S.) that is transmitted from person to person. Most people have immunity because the virus is similar to viruses that we have been exposed to in the past and vaccinations are designed to be effective on these common flu strains
  - B. Avian Influenzas (AI): also known as bird flu, is caused by a virus that infects wild birds and domestic poultry. Some AI are worse than others which in severe cases can infect humans by exposure to infected poultry. Most AI viruses cause few health problems to humans, but some strains are mutable and can shift to one that affect humans and can then spread.
    - I. Low Pathogenic: naturally occurs in wild birds and can spread to domestic birds with minor symptoms; not a significant health risk to humans; H5 and H7 strains have the potential to mutate into a highly pathogenic flu
    - II. Highly Pathogenic: spreads rapidly and has a high death rate in birds; like the H5N1 virus spread from bird to human from contact with infected poultry or surfaces contaminated with secretions or excretions from infected birds. Human to human transmission is rare but influenza viruses have the ability to change and mutate, making it difficult to effectively vaccinate. one day may transmit human to human resulting in a pandemic because there is little or no immune protection.
  - C. Swine Influenza: type A virus causes outbreaks of flu in pigs, rarely spreads from pigs to people but can be transmitted by direct contact (petting or feeding pigs with flu symptoms or touching infected surfaces or inhaling infected dust (petting zoo, fair exhibits, farms, etc.), can be prevented (see <https://www.cdc.gov/flu/swineflu/index.htm>)
    - I. Variant Virus: is when swine flu is found in humans with limited human to human transmission
  - D. Pandemic Influenza: The majority of the human population would have no natural immunity causing the virus to spread rapidly with little or no support from vaccinations. Most people do not have immunity because it is relatively new and extreme cases can be fatal.
    - I. A new virus has emerged.
    - II. The virus has to make humans very sick.
    - III. The virus is able to spread easily from person to person.
  - E. a new human flu virus that infects humans and is spread from person to person. An influenza pandemic is not like a normal flu. It may last up to two years and will occur in waves with each wave lasting 6-8 weeks, separated by 3-9 months between time periods.
2. Immunofluorescence (IF): a test conducted by laboratories for testing infectious disease.
3. Infection Prevention and Control: measures aimed to ensure the protection of those who might be vulnerable to acquiring an infection. The basic principle of infection prevention and control is hygiene.
4. International Air Transport Association (IATA) Regulations: packing and transport requirements for diagnostic specimens and infectious agents.
5. National Influenza Centres (NIC): institutions responsible for the laboratory surveillance of influenza and that are formally recognized by WHO as such.
6. Pandemic: a global disease outbreak. It is determined by how the disease spreads not how many deaths it causes. For example, cancer is responsible for many deaths, but it is not considered a pandemic because it is not infectious or contagious.
7. Quarantine: separation and restriction of movement or activities of persons who, while not yet ill, are believed to have been exposed to an infectious agent, and therefore, may become infectious.
8. Social Distancing: Keep away approximately 6 feet. This distance is measured to discourage or prohibit close social contact between individuals in schools, sports facilities, churches, and other places of public gathering.
9. Standard Precautions: Methods used to prevent and control the spread of infectious disease.
  - A. Sanitize with an alcohol-based hand sanitizer:
    - I. Put product on hands and rub hands together

- II. Cover all surfaces until hands feel dry
  - III. This should take around 20 seconds
  - B. Wash with soap and water:
    - I. Wet your hands with warm water. Use liquid soap if possible. Apply a nickel- or quarter-sized amount of soap to your hands.
    - II. Rub your hands together until the soap forms a lather and then rub all over the top of your hands, in between your fingers and the area around and under the fingernails.
    - III. Continue rubbing your hands for at least 15 seconds. Need a timer? Imagine singing the "Happy Birthday" song twice.
    - IV. Rinse your hands well under running water.
    - V. Dry your hands using a paper towel if possible. Then use your paper towel to turn off the faucet and to open the door if needed.
  - C. Use Personal Protective Equipment: Gloves and Face mask (N95 dust mask)
  - D. Respiratory Hygiene:
    - I. Cover your cough with a tissue, paper towel, sleeve, or inner elbow;
    - II. Wear a mask to prevent transmission of the virus
10. Vaccine Program: the implementation of a routine vaccination program will prevent morbidity and mortality in the target risk groups. Moreover, a routine vaccination program will contribute to the global production capacity and local infrastructure for vaccinations and may thus contribute to better pandemic preparedness.
11. World Health Organization (WHO): organization responsible for issuing the Global Alert and Response (GAR).

### **RESPONSIBILITIES**

- 1. Division Management
  - A. Communicate to employees what options may be available to them for working from home.
  - B. Communicate the office leave policies, policies for getting paid, transportation issues, and day care concerns.
  - C. Make sure that your employees know where supplies for hand hygiene are located.
  - D. Monitor public health communications about pandemic flu recommendations and ensure that your employees also have access to that information.
  - E. Work with your employees to designate a person(s), website, bulletin board or other means of communicating important pandemic flu information
  - F. Discuss business continuity with key executives and stake holders to prepare for the impact of a pandemic
- 2. Project Management
  - A. Instruct Supervisors to send and keep employees home if they exhibit symptoms of illness.
  - B. Healthy employees, not experiencing flu like symptoms, can wear voluntary respiratory protection (N95 or higher) as long as not atmospheric hazard exists and there is no potential health risk to the employee
  - C. Provide training if a pandemic event occurs in a geographical area where employees work.
  - D. Encourage employees to use general safety precautions
    - I. Stay home if you are sick without fear of reprisal
    - II. Wash hands and face before eating, drinking or smoking,
    - III. Do not share food, drinks or equipment with others if you may be sick.

### **PROGRAM REQUIREMENTS**

- 1. Plan for a Pandemic Event
  - A. Develop emergency communication plan to answer questions and open discussion for employee concerns.
  - B. Provide information and training on disease transmission and prevention
  - C. Stock-up on hand sanitizer, tissues and disinfectants
  - D. PPE for locations directly affected by pandemic event
- 2. Plan for business continuity: can affect up to 40% or more of business population.  
Prevention and Transmission Control Measures
  - A. Vaccination: In the initial stages of a pandemic the vaccine may not be widely available, and effectiveness is typically low until research can catch-up with the virus. May be several months into a pandemic until a vaccine is highly effective and available to the general public.
  - B. Early detection and treatment: Influenza will not appear to look or feel any different than any other flu. Treatment is often delayed because a serious health risks are minimal during the flu season (beyond 5 days, seek medical treatment)
  - C. Infection and Transmission Control Measures at Work
    - I. Stay home: encourage sick employees to stay home or send them home until symptom free without fear of reprisal.

- II. Wash hands frequently and/or use Hand Sanitizer: Avoid touching your face, nose, mouth and eyes
- III. Cover the cough and sneeze: tissues, (when tissues are not available use a shirt sleeve or inside elbow) and wash or sanitize hands after you cough or sneeze
- IV. Avoid close contact (keep away 6 feet): Avoid shaking hands and personal contact with others if you have any symptoms and protect yourself by wearing from someone who have symptoms.
- V. Avoid touching your eyes, nose and mouth to prevent transmission of the virus
- VI. Provide plenty of tissues and a place to wash or disinfect hands
- VII. Keep surfaces clean: telephone, cell phone, computer equipment and frequently touched surfaces Use an EPA certified disinfectant and follow all directions and safety precautions indicated on the label.
- VIII. Do Not Use equipment that belongs to others unless it can be disinfected prior to use
- IX. Promote healthy lifestyles: Good nutrition, exercise, and smoking cessation impacts the body's immune system and can increase their ability to fight off or recover from an infectious disease.
- X. Limit unessential travel to reduce recirculated forced air exposure

**CATCH IT**



**Carry a tissue**

**BIN IT**



**Dispose after use**

**KILL IT**



**Wash hands**

3. Signs and Symptoms vary from person to person and this should not be used to diagnose or treat. The absence of symptoms does not mean the absence of the pandemic virus strain. Many symptoms will be just like the regular flu and without treatment, can cause serious health risks including death.

**FLU**

- Fever
- Sore Throat
- Cough
- Chills
- Muscle Aches

**H1N1 FLU**

- Fever
- Sore Throat
- Cough
- Chills
- Muscle Aches

- Headache
- Runny Stuffy Nose
- Fatigue
- Most report diarrhea/vomiting
- Most recover without medical treatment

4. Source\_of Reliable Information about a Pandemic Event

- A. Center for Disease Control (CDC) [www.cdc.gov/flu](http://www.cdc.gov/flu) or <https://www.cdc.gov/flu/pandemic-resources/pdf/pan-flu-report-2017v2.pdf>
  - I. CDC Avian Flu <https://www.cdc.gov/flu/avianflu/index.htm>
  - II. CDC Swine Flu <https://www.cdc.gov/flu/pdf/swineflu/prevent-spread-flu-pigs-at-fairs.pdf>
- B. OSHA – [www.osha.gov](http://www.osha.gov) keyword search Pandemic
- C. Department of Health and Human Services [www.pandemicflu.gov](http://www.pandemicflu.gov)
- D. Department of Homeland Security, Strategy for Pandemic Influenza <https://www.medicalcountermeasures.gov/BARDA/documents/pandemic-influenza-implementation.pdf>

**TRAINING**

- 1. Healthy Habits and Prevention and Infection Control Measures are provided to all employees at least once a year
- 2. Specific training shall occur in geographical locations where there is an increased risk of a pandemic event.

**FORMS**

Not applicable at this time



## Knife Safety Program

### PROGRAM STATEMENT

Wilkinson Electric recognizes the hazards associated with knife use and implemented this program to identify the risks to reduce the related hazards. Whenever possible, employees are expected to use a wire or cable stripping tool when stripping cable. This program shall be used when the use of a knife is unavoidable.

### DEFINITIONS

1. Open Blade Knife: any knife that is not protected by a guard, hood or other permanent covering that would prevent the blade from contacting the user if inadvertent contact were to occur
2. Industrial Knives: Many variations including Fixed Blade, Scissors/Shears, Electric Knives
  - A. Fixed Blade: Retractable blade or Box Cutter or
  - B. Utility Knife: Typically require a new blade be installed and the worn/dull blade replaced

### RESPONSIBILITIES

1. Employee
  - A. All employees who may be required to use a knife while performing certain tasks shall only use an authorized knife type/style
  - B. Shall not bring ordinary pocket knife, razor blades, box cutters, or otherwise Open Blade that is not protected by a guard
2. Supervisors
  - A. Shall only require the use of an authorized knife type/style
  - B. Authorized knife shall be properly maintained and free from defects
  - C. Provide required glove protection for the task
  - D. Shall train employees on knife safety as needed.
  - E. Shall remove all damaged, defective, or unauthorized equipment from the site

### PROGRAM REQUIREMENTS

1. Knife Hazards
  - A. Dull Blade: Cutting with a dull blade causes the user to apply more pressure to cut the material
    - I. Material may appear torn or frayed after using a dull blade
    - II. Additional pressure may cause the blade to bend or break
    - III. Fatigue may be associated with the use of a dull blade for repetitive tasks.
    - IV. Additional pressure may cause the user to lose balance if the blade or slips or breaks away from material being cut
    - V. Attention to "get the material cut" reduces the awareness of where the blade path is traveling
  - B. Path of Blade: Cuts should be made when the blade path is away from the body or 90-degree angle.
    - I. Before making a cutting motion, ensure the free hand and body are not in the path of the blade.
    - II. Whenever it is determined that the cable and position of the employee are such that the knife must be pulled toward any part of the employee's body, a barrier such as a piece of plywood or similar material must be placed between the potential path of the knife and the employee's body or coworkers body.
  - C. Knife mis-use
    - I. Any knife used in horseplay or negligent mis-use is subject to disciplinary action, up to and including termination.
      - 1) Knife horseplay, such as throwing, fencing, or any other aggressive act, is **absolutely forbidden**.
      - 2) Using a knife for other than its intended purpose
      - 3) Unprotected blade while not in use
      - 4) Improper disposal blade unprotected
    - II. Knives that are not in good working condition shall be removed from site
    - III. Always sheath a knife when it is necessary to walk with a knife. **NEVER** travel with an open blade.
2. Knife Safety:
  - A. Inspect knife for signs of damage or defects to the blade or handle
  - B. A fixed blade knife (one that does not fold or slide) with a leather carrying case is the **ONLY** approved knife to be use on Wilkinson Electric projects.
  - C. Personal pocket knives and utility knives shall **NOT** be used for stripping wire
  - D. Sharpen or replace blades when it begins to show signs of dullness.
  - E. PPE – Personal Protective Equipment shall be worn in accordance with the manufacturers specifications.
    - I. Follow the Wilkinson Electric *Hand Protection and Glove Selection Chart* for appropriate glove type

when using a knife (Section 9.1.2).

- II. Always use the appropriate cut rated glove for any task involving a knife.
  - III. Depending upon the circumstances gloves and/or arm guards may be required on both hands and arms.
  - IV. Always use cut resistant gloves and arm guards on the hand and arm opposite of the hand holding the knife.
- F. Path of Blade:
- I. Maintain awareness of the position of the opposite hand in relation to the knife and its path of travel when stripping or slitting the insulation.
  - II. Keep the opposite hand out of the projected path of the knife's travel
  - III. Be aware of the path the knife blade will travel if the knife were to slip off the wire or cable insulation.
  - IV. Position your body and body parts to prevent injury in the event of such slippage.
  - V. Always allow ample distance between you and your co-workers when making a cutting stroke
  - VI. Never lay material across a leg, or any other body part, as an intended cutting surface.
  - VII. Never attempt to catch a falling knife or blade

3. Proper Knife Use:

- A. Plan your work to minimize the number of cutting strokes.
- B. Stand with stable footing to prevent slipping or overcorrection counterbalance if excessive force is required to open the material and a slip occurs. is necessary to avoid slips and falls when working with a sharp knife.
- C. Smoothly apply even pressure with the blade of the know down starting left and pulling the knife right or right to left (instead of pulling knife from up to down preventing the hazard of a self-inflicted wound if it slips)
- D. Jerky motions should be avoided as they tend to lead to injury.
- E. Be aware of what is beneath the material being cut.
- F. Unnecessary cutting strokes increase the risk of injury



4. Knives Maintenance and Storage

- A. It takes less force to cut with a sharp knife than with a dull one.
- B. A dull knife requires increased force to perform the same job with a sharp knife.
  - I. The increase in force may cause:
    - 1) The knife to slip,
    - 2) The user to slip from instability by losing balance from the excessive force clearing the material
    - 3) PPE to fail – PPE can fail to protect if excessive force is applied beyond the protection factor
- C. Do not wipe a dirty blade with your hand or across your pant leg.
- D. Always use a rag and have the sharp end of the blade turned away from you.
- E. Maintain the integrity of your knife to assure it is in good working condition.

**TRAINING**

- 1. Is required as needed

**RECORDKEEPING**

Each location is responsible for maintaining accurate records in accordance with Local, State, and Federal requirements.

**FORMS**

Not Applicable at this time.

## Fatigue Management Program

### PROGRAM STATEMENT

Wilkinson Electric is committed to employee safety and recognizes the risks associated with employee fatigue. To ensure our employees recognize the effect of fatigue as related to safe work performance and guidelines for work hours and equipment to reduce behaviors that lead to fatigue.

### DEFINITIONS

1. Fatigue: Mental or physical exhaustion that prevents normal function or routine.
2. Circadian Rhythm: Internal body clock naturally programmed sleep/wake cycle

### RESPONSIBILITIES

1. Employee
  - A. Present to work in a fit state free from alcohol and drugs;
  - B. Employees must not chronically use over-the-counter, prescription drugs and any other product which may affect an employee's ability to perform their work safely, including fatigue that sets in after the effects of the drug wear off.
  - C. Report fatigue to your supervisor if you find it difficult to work or perform tasks.
  - D. Employees shall report tiredness/fatigue and lack of mental acuity to supervision and supervisory personnel shall make safety critical decisions and take appropriate actions to prevent loss including replacement of tired employees, changing schedules, or forcing work stoppages.
  - E. Employees need to be rested prior to starting work (sleep duration approximately 6-8 hours).
  - F. Employees need to monitor their own performance and take regular periods of rest to avoid continuing work when tired.
2. Supervisor
  - A. Implementation and maintenance of this program for their site and ensuring all are made available for compliance with the program.
  - B. Provide equipment that reduces fatigue
  - C. Maintain staffing levels
    - I. Limit work hours to no more than a 16-hour day and not to exceed 60 hours of work in one 7-day period.
    - II. Add: Overtime hours, hours of scheduled work (more than 8?), and consecutive days worked to determine if staffing is needs are met.
    - III. Set work hour limitations and will control job rotation schedules to control fatigue, allow for sufficient sleep and increase mental fitness to control employee turnover and absenteeism.
    - IV. Reduce the duration of strenuous tasks by rotating employees
3. Shared responsibility between supervisors and workers as it involves both inside and outside work.
  - A. Plan activities accordingly, take time off to recover from extensive travel, work, or vacation days,
  - B. Communicate the need for time off or PTO when personal events are scheduled that may interfere with your work schedule.

### PROGRAM REQUIREMENTS

1. Fatigue affects personal safety by:
  - A. Decreased alertness
  - B. Slowed reaction time
  - C. Poor hand-eye coordination
  - D. Poor communication
  - E. Higher error rates
  - F. Reduced vigilance
  - G. Reduced decision-making ability
  - H. Easily distracted during complex tasks or difficulty starting and completing tasks
  - I. Difficulty responding to emergencies
  - J. Loss of awareness of critical situations
  - K. Inability to remember the sequence of events
2. Symptoms of Fatigue
  - A. Blurred vision
  - B. Difficulty keeping eyes open or constantly tired
  - C. Head nodding
  - D. Dizzy or drowsy relaxed feeling
  - E. Irritability, weakness



- F. Not feeling refreshed after sleep (waking up tired)
  - G. Falling asleep at work
  - H. Micro sleeps – falling asleep for less than a second to a few seconds and being unaware that you have done so.
  - I. Lack of energy and motivation
3. Health Risks associated with fatigue
- A. Heart Disease
  - B. Stomach and digestion problems
  - C. Musculoskeletal disorders
  - D. Reproductive problems
  - E. Depression
  - F. Some cancers (breast and prostate)
  - G. Sleep disorders
  - H. Poor eating habits/obesity
  - I. Worsening of existing chronic diseases (diabetes and epilepsy)
4. Causes of Fatigue: Prolonged periods of physical and/or mental exertion without enough time to rest and recover.
- A. Work
    - I. Schedule includes too many consecutive days of work without time off
    - II. Increased work load or night shift workers
    - III. Temperature extremes or difficult working environment (noise)
  - B. Outside Work
    - I. Sleep disruption due to family emergencies
    - II. Strenuous activities or demands of a second job
    - III. Sleep disorders
    - IV. Inappropriate use of alcohol, prescription, or illegal drugs
    - V. Stress associated with finance and domestic responsibilities
5. Fatigue Control Methods
- A. Maintain Scheduled Breaks
    - I. 15 Minutes each 2.5 hours
    - II. 30 Minutes after 5 Hours
    - III. 15 Minutes after 7.5 Hours (when more than 10 hours are scheduled)
    - IV. Employees may take a break at any time they feel necessary while working in extreme temperatures – monitored by Safety and Site Supervision
    - V. Every Employee shall have necessary work breaks to avoid fatigue.
    - VI. These scheduled breaks will apply to both driving and on-site hours
      - a) 16 hours per day
      - b) 24 Days Continuous
  - B. Tasks or Conditions shall be evaluated periodically
    - I. Unfamiliar or irregular work should be planned to ensure employees do not become fatigued.
    - II. A place to sit and rest as well as a place to escape extreme temperatures will be provided to all employees.
  - C. Use of Ergonomic Friendly Equipment
    - I. Ergonomic equipment will be used to improve workstation conditions such as lift assist devices for repetitive lifting, proper lighting and controls of temperature and other ergonomic devices as deemed appropriate and practical.
    - II. Equipment to be used will be determined in the safety task assignment.
6. Program shall be reviewed at least once a year as needed.

**TRAINING**

- 1. Initial and annual training on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and reporting of fatigue to supervision.
- 2. Fatigue management and health issues.

**RECORDKEEPING**

- 1. Each Wilkinson Electric location is responsible for maintaining all training records in accordance with Local, State, and Federal requirements.

**FORMS**

Not applicable at this time



## Waste Management Program

### PROGRAM STATEMENT

Wilkinson Electric is committed to performing its work in a responsible manner that contributes to the protection of the environment and results in **ZERO** environmental incidents. This plan has been developed by Wilkinson Electric to provide guidelines and methods of implementation to reach such goals. In addition to this plan, it is the intention of Wilkinson Electric to comply with all applicable regulations including those developed by the following:

1. Department of Occupational Safety and Health
2. Department of Environmental Quality
3. Occupational Safety and Health Administration (OSHA)
4. Environmental Protection Agency (EPA)
5. All Local and State Environmental Agencies

### DEFINITIONS

Not applicable at this time

### RESPONSIBILITIES

1. Project Management would identify disposal of non-typical waste prior to beginning the project
2. Environmental Safety and Health Meetings shall include environmental topics that support this program

### PROGRAM REQUIREMENTS

1. Housekeeping
  - A. All scrap and waste materials will be cleaned up daily and placed in approved containers.
  - B. Waste containers will be segregated, as needed. Any containers that hold hazardous materials, hazardous waste, or waste oil will be labeled, as required, in the applicable parts of the code of federal regulations. Outside trash receptacles must be covered. Containers will be emptied at frequent and regular intervals.
2. Reporting Environmental Incidents
  - A. In the event of any environmental release or potentially hazardous material release, the client/owner will be notified immediately.
  - B. A thorough investigation of the incident will be conducted, and the findings analyzed to prevent further occurrences.
3. Waste Minimization

Wilkinson Electric will use non-regulated chemicals, when applicable, to minimize the generation of hazardous waste.
4. Spill Prevention Control and Cleanup
  - A. Drip containment trays with absorbent materials will be used under threading machines to contain potential oil wastes.
  - B. Spill kits will be readily available for prompt clean up and disposal.
  - C. At the time of delivery, all mechanized and vehicular equipment will be inspected for any fluid leaks. If applicable, leaks will be repaired.
  - D. During the daily equipment inspections of aerial lifts, forklifts, vehicles, etc., routine checks for leaks will be conducted. Any leaks found will be reported to the Wilkinson Electric Supervisor and appropriate repairs will be made.
  - E. Secondary containment will be provided for all oil and hazardous materials in a container greater than five (5) gallons.
  - F. All hazardous materials and waste containers will be labeled with the appropriate NFPA label. This label will be in addition to any manufacturer's information and will not be applied over any other warning or descriptive labels.
5. Onsite Fueling Procedures
  - A. Portable fuel storage tanks will be grounded.
  - B. Filler hoses will be bonded from the tank to the dispensing nozzle.
  - C. Vehicles dispensing fuel will have a static ground attached to the unit being filled, which will be attached prior to any refueling operations.
  - D. The storage tank will be identified with "Wilkinson Electric" and the name of its contents.
  - E. The end of the fuel hose will have a quick closing shut-off valve.
  - F. Siphoning of fuel will not be allowed.
  - G. Gas cans being filled will be bonded to the supplying tank prior to refueling.
  - H. Equipment/vehicle tanks will not be filled while the engine is running.

- I. Smoking, welding, or any spark/flame producing operation will be stopped in the immediate area during refueling operations.
  - J. A 20 ABC fire extinguisher will be located adjacent to the fueling area.
  - K. High visibility signs will be posted at all fueling locations, e.g., no smoking, turn off ignition, etc.
  - L. Fueling operations will be attended while in progress.
6. Hazardous Material Storage and Containment
- A. No more than 25-gallons of flammable materials will be stored in one room.
  - B. 5-gallon fuel cans with self-closing lids and a flash arrestor will be used to store gasoline and diesel fuels.

**TRAINING**

- 1. Training will be conducted as described in 29 CFR 1926.21.
- 2. In addition to 1926.21, employees will be trained in environmental protection issues including:
  - A. Identification of environmentally hazardous materials
  - B. Equipment inspection for leaks
  - C. Emergency spill reporting
  - D. Cleanup of spills (designated personnel)
  - E. Waste minimization
- 3. Wilkinson Electric will emphasize, in its new employee orientation, the following subjects:
  - A. Employee's responsibility to adhere to client/owner's environmental compliance programs and proper waste disposal methods.
  - B. Conducting work operations in an environmentally safe manner; i.e., proper handling and application of hazardous materials, wastewater control, elimination of unnecessary hazardous waste through efficient work practices.
  - C. Wilkinson Electric employee participation in the client/owner's waste minimization and recycling program, i.e., utilizing correct amounts of hazardous material, properly separating recyclable waste materials, and responsibilities for adhering to the jobsite hazardous waste disposal program.
  - D. Reporting Environmental Hazards – employee responsibilities regarding reporting and correcting client/owner's jobsite hazards that may compromise environmental regulatory compliance.
  - E. Release to the Environment – client/owner's jobsite environmental cleanup and control procedures for accidental spills or discharge of a hazardous material to the environment will be discussed with the employee.
  - F. Emergency and Contingency Procedures – client/owner's jobsite specific environmental related emergency and contingency procedures will be discussed with the employee.
  - G. Records of attendance at orientations and training sessions will be documented and maintained at the jobsite office.

**RECORDKEEPING**

All Wilkinson Electric locations shall maintain records in accordance with Local, State, and Federal requirements.

**FORMS**

Not applicable at this time