



**TPE Industries, Inc.**  
**Health & Safety Handbook**



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## Summary and Safety Commitment

### HEALTH AND SAFETY POLICY STATEMENT

It is the policy of T.P. Electric, Inc. that accident prevention shall be considered of primary importance in all phases of operation and administration. It is the intention of T.P. Electric, Inc. management to provide safe and healthy working conditions and to establish and insist upon safe practices at all times by all employees.

The prevention of accidents is an objective affecting all levels of our company and its operations. It is therefore, a basic requirement that each supervisor make the safety of all employees an integral part of his or her regular management function. It is equally the duty of each employee to accept and follow established safety regulations and procedures. Every effort will be made to provide adequate training to employees. However, if an employee is ever in doubt about how to do a job or task safely, it is his or her duty to ask a qualified person for assistance. Employees are expected to assist management in accident prevention activities. Unsafe conditions must be reported immediately. Fellow employees that need help should be assisted. Everyone is responsible for the housekeeping duties that pertain to their jobs.

Every injury that occurs on the job, even a slight cut or strain, must be reported to your supervisor as soon as possible. Under no circumstances, except emergency trips to the hospital, should an employee leave the work site without reporting an injury.

Please work safely. Safety is everyone's business.

T.P. Electric, Inc. is firmly committed to the premise that people are our most important resource, and, as a company, we are dedicated to their safety. Our policy is to perform work in the safest manner possible, to provide a work environment free of recognized hazards, and to ensure that employees are not placed at risk of injury.

Prevention of occupationally-induced injuries and illnesses is of such importance that it will be given precedence over operating productivity. To the greatest degree possible, management will provide all protections required for personal safety and health.

To accomplish our goals, employee safety commitment is a key element. Compliance with our standards and procedures will assist us in pursuit of an accident and injury-free work environment. Safety must be incorporated into all our activities, and this requires a team effort from all levels of the organization.

The Health and Safety Manual has been developed to guide us in placing safety ahead of expediency. Each employee must be committed to a safe workplace, for both his or her own personal safety as well as the safety of all other employees on the job. We expect and appreciate your cooperation in our safety efforts. Together we can reduce injuries and illness, and continue creating a safer work environment. OUR GOALS ARE ZERO ACCIDENTS AND ZERO INJURIES.



Vice President  
T.P. Electric, Inc.

## Introduction to Our Program

At T.P. Electric, Inc. the safety and health of our employees is our first priority. Safety and health must be a part of every operation, and is every employee's responsibility at all levels. It is our intent to comply with all laws concerning the operation of the business in relation to the health and safety of our employees and the public. To do this, we must constantly be aware of conditions in all work areas that can produce or lead to injuries. To be successful, such a program must embody proper attitudes towards injury and illness prevention on the part of supervisors and employees. It requires the cooperation in all safety and health matters, not only between the employer and employee, but between the employee and all co-workers. Only through a cooperative effort can a safety program be established and preserved. No employee is required to work at a job known to be unsafe or dangerous to his or her health. Your cooperation in detecting hazards, reporting dangerous conditions and controlling workplace hazards is a condition of employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct. Employees will not be disciplined or suffer any retaliation for reporting a safety violation in good faith.

### General Safety Responsibilities for All Employees

Safety is everyone's responsibility and a cooperative undertaking requiring an ever-present safety consciousness on the part of every employee. The following responsibilities are fundamental to the execution of our safety program:

Managers are responsible for providing a safe and healthful workplace and assuring that all of the required activities are in place. They are accountable for the following:

- Assure orientation safety training is conducted
- Assure weekly safety meetings with all employees are conducted
- Enforce safe work rules
- Ensure accident investigations are completed and corrective measures are implemented
- Comply with OSHA standards
- Lead by example
- Assure monthly safety inspections are reviewed
- Actively promote a zero accident safety culture
- Monitor and evaluate personnel to ensure that they are actively pursuing their responsibilities in the context of the T.P. Electric, Inc. Safety Program

The Safety Director is responsible for coordinating, promoting, and developing a cooperative spirit among management, supervisory and hourly personnel for designing and implementing safety and accident-prevention activities. He is responsible for monitoring all aspects of the safety program and providing the necessary information and assistance to supervisory personnel for the execution of their safety responsibilities. The Safety Director has the authority in all matters pertaining to safety and the general health and well-being of all employees under his or her jurisdiction.

Crew Leaders are directly responsible for the safety of all employees under their supervision. Included in their job duties are jobsite safety meetings, inspections, accident prevention and loss control. All safety responsibilities are to be an ongoing and integral part of their job functions

All employees are directly responsible to their immediate supervisor or crew leader for participation in all aspects of the safety program pertinent to the health and well-being of themselves and their co-workers. In particular, all employees are accountable for:

- Maintaining safe work practices in their work areas
- Reporting any unsafe conditions observed in their areas
- Correcting any unsafe conditions or actions if it is within their authority
- Following all safety rules and regulations
- Reporting all accidents or injuries immediately to their supervisor or crew leader and assisting in the investigation of any accidents when necessary

- Participating in all safety programs and activities, cooperating with safety coordinator, supervisor, and management personnel in all areas of employee safety
- Assume any other safety duties as set forth by the company

The Safety Committee is responsible for proactively addressing safety and health issues within our organization and to achieve continuous improvement in the accident prevention process. Specific duties and functions include:

- Assist in the resolution of health and safety issues at the workplace;
- Assist in the formulation, dissemination and changes of policies, practices and procedures that promote health and safety;
- Detect hazards and make recommendations to correct hazards;
- Review incidents resulting in complaint, death, injury, or illness;
- Conduct follow-up evaluations on the effectiveness of safety equipment or health and safety procedures

### **The Stop Work Authority**

- Purpose:
  - The Stop Work Authority (SWA) process involves a stop, notify, correct and resume approach for the resolution of a perceived unsafe condition, act, error, omission or lack of understanding that could result in an undesirable event. T.P. Electric, Inc. employees have the authority and obligation to stop any task or operation where concerns or questions regarding the control of health, safety or environmental risks exist.
  - This program applies to all T.P. Electric, Inc. projects and operations.
- Responsibilities:
  - Employees are responsible to initiate a Stop Work Intervention when warranted and management is responsible to create a culture where SWA is exercised freely.
  - Supervisors are responsible to ensure a culture is created where SWA is exercised and honored freely to resolve issues before operations resume and recognize proactive participation.
  - Management must establish and support clear expectations to exercise SWA, create a culture where SWA is exercised freely and hold those accountable that chose not to comply with established SWA policies.
- Stop Work Authority Procedure:
  - When an unsafe condition is identified, the Stop Work Intervention will be initiated, coordinated through the supervisor, initiated in a positive manner, notify all affected personnel and supervision of the stop work issue, correct the issue and resume work when safe to do so.
  - No work will resume until all stop work issues and concerns have been adequately addressed.
  - Any form of retribution or intimidation directed at any individual or company for exercising their right to issue a Stop Work Authority will not be tolerated by the host or by T.P. Electric, Inc.
- Follow-Up:
  - All Stop Work Interventions shall be documented for lessons learned and corrective measures to be put into place.
  - Stop Work reports shall be reviewed by supervision order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of learning.
  - It is the desired outcome of any Stop Work Intervention that the identified safety concern(s) have been addressed to the satisfaction of all involved persons prior to the resumption of work. 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.
- Training:
  - Employees shall receive Stop Work Authority training before their initial assignment. The training will be documented including the employee name, the dates of training and subject matter.

## **Disciplinary Action Plan**

In order to promote a safe work culture and discourage employees from putting themselves or others at undue risk, T.P. Electric, Inc. maintains a Disciplinary Action Plan that is strictly enforced.

### **Safety Violations Subject to Disciplinary Action**

T.P. Electric, Inc.'s policy is progressive in nature and structured as such:

- **FIRST OFFENSE:** Documented verbal warning
- **SECOND OFFENSE:** A written warning will be issued to the employee, to be signed by both the employee and supervisor. Each party will retain a copy of this document. Suspension of the employee in violation is at the discretion of the supervisor.
- **THIRD OFFENSE:** Termination of employment for a *minimum* of 1 year.

The following is a list of examples of safety offenses that will result in disciplinary action.

- 1) Falsification of forms, records, reports and any other official documentation
- 2) Failure to follow Lock-Out/Tag-Out (LOTO) procedure
- 3) Failure to follow Confined Space Entry procedure
- 4) Violation of Fall Protection requirements
- 5) Fighting
- 6) Failure to use proper PPE
- 7) Improper use/modification of tools
- 8) Respiratory protection violation
- 9) Improper use of ladders - Ladders not tied off or footed
- 10) Creating a fall hazard
- 11) Unauthorized operation of equipment
- 12) Unauthorized scaffold modification
- 13) Violation of written safety procedures/policies
- 14) Unsafe vehicle/equipment operation
- 15) Improper flammable/combustible storage
- 16) Untimely reporting of an injury

Certain safety violations of a serious nature can be subject to discipline up to and including termination, decided at the sole discretion of the Company.

### **Retention of Records**

Disciplinary Action Reports become a permanent part of employee files and may be subject to review by T.P. Electric, Inc. management when considering an employee for re-hire.

## **Workplace Violence**

Workplace violence ranges from offensive or threatening language to bodily injury. NIOSH defines workplace violence as violent acts (including physical assaults or threats of assaults) directed toward persons at work or on duty. T.P. Electric, Inc. maintains a policy that workplace violence, in the form of threats, harassment, intimidation and other disruptive behavior (such as the possession of weapons on company or client property) will not be tolerated. All reports of workplace violence will be taken seriously and dealt with appropriately by T.P. Electric, Inc. management.

## **Substance Abuse Policy**

It is our responsibility to continuously provide a safe work environment for all employees. Substance abuse in the workplace can seriously impair our ability to accomplish this mission. To mitigate the effects of substance abuse in the workplace, T.P. Electric, Inc. maintains a zero-tolerance approach to substance abuse and a policy that all jobsites are considered drug-free. In so doing, all employees must likewise accept their responsibility to be physically and mentally fit to perform their assigned duties safely and efficiently. Management will utilize every reasonable measure to maintain a drug-and alcohol-free work environment. This includes pre-employment drug screen, post accident drug and alcohol testing, return-to-duty and follow-up drug and alcohol testing, random drug and alcohol testing, and reasonable-suspicion/for-cause drug and alcohol testing. Random testing can be provided at Company jobsites. The complete T.P. Electric, Inc. substance abuse program can be obtained from your supervisor.

## **Incident Reporting, Accident Investigation and Safety Hazard Audits**

If you have an accident or if you are injured on the job you are to immediately notify your supervisor. With reference to occupational disease, an employee must give notice to the employer when the employee is first informed by a competent medical authority of the nature and work related causes of the illness.

When possible, the injured employee should utilize Company approved medical providers.

A primary tool used by T.P. Electric, Inc. to identify the areas responsible for accidents is a thorough and properly completed accident investigation by the direct supervisor. Based upon the investigation, a corrective action will be implemented.

In addition to accident investigation, safety depends on workplace observation. All personnel are responsible for inspecting the work area daily, in addition to formal monthly audits performed by the Safety Director, Crew Leader or Safety Committee Member. Additionally, before you begin work, you are required to inspect the area for any unsafe conditions. Inform your supervisor immediately of any safety hazards, so corrective action can be taken.

## **Emergency Action**

T.P. Electric, Inc. maintains an emergency action program consistent with OSHA regulations. The plan is posted at each jobsite and includes all jobsite specific information to assure a quick response from emergency responders. T.P. Electric, Inc. also maintains fully stocked first aid kits, which are centrally located throughout the facility and at each jobsite. Your responsibilities regarding T.P. Electric, Inc.'s. emergency action program:

- Know the Emergency Action Plan at T.P. Electric, Inc.. and at your jobsite
- Become familiar with the location and contents of the first aid kits
- Immediately notify your supervisor or crew leader of the emergency situation
- Do not attempt to render first-aid unless you are authorized to do so- doing so can put you and the injured at further risk

## **Onsite Pre-Task Safety Planning**

Prior to the start of onsite work, a brief meeting will be held by the Crew Leader in which the steps of the job are outlined, possible hazards are identified and corrective measures and safeguards are reviewed. The meeting is documented by the crew leader and retained for reference throughout the shift. If there are unexpected changes to the job, these changes must first be reviewed with crew members.

## **Training**

Employee safety training is another requirement of an effective injury and illness prevention program. While T.P. Electric, Inc. believes in skills training, we also want to emphasize safety training. All our employees should begin their safety training by reading this handbook and discussing any problems or safety concerns with their direct supervisor.

Crew Leaders are encouraged to receive OSHA Standard training. In addition, task-specific safety training will be provided before any task which presents unique hazards or requires specific certification.

Providing training to employees regarding task-specific hazards is the responsibility of T.P. Electric, Inc., but please remember that cooperation is necessary for success. No employee should undertake a job that appears to be unsafe without fully understanding the hazards present during that task. No employee is expected to undertake a job until he/she has received adequate safety instructions and is authorized to perform the task. If any employee feels that they lack the specific knowledge necessary to perform their assigned task safely and successfully, it is the responsibility of that individual to inform site management.

### **Weekly Safety Training Meetings**

T.P. Electric, Inc. conducts weekly safety meetings. The purpose of the meeting is to convey safety information and answer employee questions. The format of most meetings will be to review, in language understandable to every employee, the content of the injury prevention program, special work site hazards, material safety data sheets and other related material. Whenever a new practice or procedure is introduced into the workplace, it will be thoroughly reviewed for safety. Employee attendance is mandatory.

### **Housekeeping**

T.P. Electric, Inc. maintains a policy that all work areas and jobsites must be kept clean and orderly. You are provided time to be utilized for clean up of your work area or department. Your responsibilities regarding T.P. Electric, Inc.'s housekeeping policy:

- All scrap material must be removed from the work area as soon as practical in a approved method
- All walking/working surfaces must be kept dry or appropriate means taken to assure that surfaces are slip-resistant
- All spill materials or liquids should be cleaned up immediately
- Keep your work area clean and material properly stored
- If hazardous chemical spills are identified, barricade the spill area and notify your supervisor or crew leader
- Do not block or obstruct exit routes
- Do not obstruct access to fixed ladders, stairways, electrical switches, fire fighting, rescue or any emergency equipment
- Keep tools stored neatly in designated area and materials securely racked or stored

### **Personal Protective Equipment (PPE)**

Proper safety equipment is necessary for your protection. T.P. Electric, Inc. provides the best personal protective equipment available. Use all safeguards, safety appliances, or devices furnished for your protection and comply with all regulations that may concern or affect your safety. If any item is damaged it shall be brought to supervision and replaced. These items shall be worn and effectively maintained as a condition of your continued employment and part of our mutual obligation to comply with the Occupational Safety and Health Act.

#### Foot Protection

Adequate foot protection must be worn by employees at T.P. Electric, Inc. and jobsites. Safety toe shoe or boot is required. Specific foot protection may be required by customers. Footwear must meet the specifications of the current ANSI Z41.1 Standard. Footwear must fit properly and be maintained in good condition.

#### Eye and Face Protection

Eye protection which meets the current ANSI Z87.1 standard for industrial use must be worn at T.P. Electric, Inc. and jobsites. This policy applies to safety eyewear for non-prescription as-well-as prescription frames and lenses. Prescription glasses must have permanent side shields attached.

#### Hand Protection

Jewelry such as rings, watches, and bracelets must not be worn on jobs where it is determined they could cause injury to the wearer. Abrasion-resistant gloves must be worn during some tasks which pose hazards to the hands (Example--Latex for chemicals, metacarpal gloves on customer sites).

### Body Protection

Employees must wear clothing suitable to their work environment. Additional protective clothing should be selected based on the hazards of the work environment. Chemical protective clothing must be worn by employees handling corrosive or toxic chemicals. Fire Resistant clothing must be worn in accordance with the hazards of the jobsite or the requirements of the site owners.

### Head Protection

Per customer site safety rules, protective helmets (hard hats) must be worn by employees at all times on T.P. Electric, Inc. jobsites to protect employees from head injury. Hard hat construction must comply with ANSI Z89.1 - 1986 "Protective Headgear for Industrial Workers - Requirements". A Class E hard hat has been proof-tested to insulate up to 20,000 volts of electrical potential.

### Hearing Protection

All employees are required to follow the customer's site-specific hearing conservation protection program.

### Respiratory Protection

A respirator is an important piece of PPE that should be utilized when:

- Airborne dusts, such as asbestos, coal, silica from sand, or stone and chemical dusts and powders are present
- Mists, sprays and fogs from paints or cleaning solvents are present
- Fumes from metals or other materials that are heated while welding or burning
- Gases from chemical reactions are present
- Vapors that are given off from uncovered or released products such as mercury or solvents are present

It is important that everyone who is qualified to wear a respirator inspects each part of their personal fit respirator before each use and selects the appropriate cartridge filter based on levels of contamination and the contaminant involved. At no time shall a respirator be worn with facial hair. This prevents the respirator from sealing to the face.

REMEMBER: These items are the minimum Personal Protective Equipment. Specialized PPE will be provided as job hazards dictate.

### **Fall Protection**

T.P. Electric, Inc. maintains an effective fall protection program. In general, all work done at a height of four (4) feet or greater must be done in the presence of a fall protection system: Guardrail Systems, Safety Net Systems, Personal Fall Arrest Systems, etc. Your responsibilities under the T.P. Electric, Inc. Fall Protection Program are as follows:

- Never work at a height of Six (6) feet or greater without the use of a fall protection system
- Guardrails must be constructed according to the OSHA requirements for a standard guardrail
- Personal fall arrest systems (PFAS) should be used in accordance with OSHA standards and manufacturer recommendations whenever there is a fall exposure at or above four (4) feet to a lower level
- Inspect PFAS equipment for damage or defects prior to each use

### **Electrical**

T.P. Electric, Inc. insists that all hazards associated with the use of electricity in the workplace be minimized. Each supervisor must be fully knowledgeable of electrical work performed in the workplace and of any electrical hazards present. T.P. Electric, Inc. maintains the policy that working on live equipment is to be avoided at all costs. In the rare case where energized work needs to be done, consistent with the guidelines outlined through OSHA and NFPA 70E, all protective measures must be employed to minimize the employee risk to zero. Your responsibilities under T.P. Electric, Inc.'s Electrical Safety Program:

- Work on energized equipment is strictly forbidden unless authorized by management
- Work on energized equipment must never commence unless all safeguards are fully functional (i.e. personal protective equipment, thorough employee training, emergency response and life saving equipment, etc)
- Report any hazard to life or property that is observed in connection with a job, or electrical equipment
- Preliminary inspections or appropriate tests will be conducted to determine conditions before starting work
- Equipment must be effectively locked and tagged out before work commences
- **Ensure** that you have received lock-out/tag-out training before implementing any lock-out/tag-out procedures
- Extension cords being used must have a grounding conductor
- The location of electrical power lines and cables (overhead, underground, under floor, other side of walls) must be determined before digging, drilling or similar work is begun
- All disconnecting switches and circuit breakers must be labeled to indicate their use or equipment served.
- All energized parts of electrical circuits and equipment must be guarded against accidental contact by approved cabinets or enclosures
- Sufficient access and working space will be provided and maintained around all electrical equipment
- Respect minimum safe approach distances (MSAD)

### **Fire Retardant and Resistant Clothing**

Clothing that will not burn once the heat source is removed is considered to be “fire retardant or fire resistant” clothing. This type of clothing must, by OSHA and NFPA 70e standards, be worn by workers who face a significant risk of injury from burns related to electric arc flash and/or resultant flames; or, who are exposed to hazards associated with work on or near exposed energized parts. This includes:

- Work involving the use of rubber protective equipment
- Trouble shooting and circuit testing
- Electrical switching
- Work involving energized batteries, inverters, chargers, transformers and bushings
- Exposed energized busses, terminal blocks, panel boards, charging brushes
- Other work within reaching or falling distance of exposed energized parts

Most importantly, all required arc flash protective clothing must be worn where appropriate.

### **Control of Hazardous Energy (Lock-Out/Tag-Out)**

The Control of Hazardous Energy is required before servicing, repair, maintenance, inspection or exposure to equipment or areas where a hazard may be presented by uncontrolled energy, including the flow of solids, liquids or gases into confined spaces or environments. All employees who will be working on equipment shall follow The T.P. Electric, Inc. Log-Out/Tag-Out (LO/TO) procedure. Lock-out is the process of blocking the flow of energy from a power source to a machine or piece of equipment and keeping it blocked out. Lock-out is accomplished by installing a lockout device at the power source

or energy supply so that equipment cannot be operated. A lock-out device is a lock, block, or chain that secures a switch, valve, or lever in the off position. All machinery or equipment capable of movement must be de-energized or disengaged and blocked or locked out during servicing or maintenance. Authorized employees are provided with individually keyed personal safety locks “Danger” tags are issued to accompany isolation locks. The general lock-out/tag-out sequence is as follows:

1. Removal of equipment or system from service
  - a. Preparation for shutdown (including notify of affected employees).
  - b. Equipment or system shutdown
  - c. Equipment or system isolation
  - d. LO/TO device application
  - e. Dissipation of stored energy

- f. Verification of isolation
2. Release from Lock-Out/Tag-Out
  - a. Inspection
  - b. Notification of employees
  - c. Removal of LO/TO device(s)
  - d. Operation of energy isolation devices

Your responsibility under T.P. Electric, Inc.'s Lock-Out/Tag-out program is as follows:

- Become familiar with the site-specific lock-out/tag-out procedures in use at your particular jobsite
- Ensure that you thoroughly understand the equipment-specific lock-out/tag-out procedure prior to starting any work
- Do not conduct any work requiring lock-out/tag-out procedures until you have received OSHA lock-out/tag-out "Authorized Person" training
- Ensure that the machinery or equipment is in a zero-energy state before commencing any work
- Never attempt to remove a lock or tag from a piece of equipment that has been locked out

### **Hazardous Substances Communication**

T.P. Electric, Inc. maintains a Hazard Communication Program in compliance with OSHA regulations. The program deals with Material Safety Data Sheets (MSDS), labeling and employee training. MSDS materials will be readily available for each hazardous substance used. Regular training sessions will be held in order to keep employees informed. The program will include: an explanation of what an MSDS is and how to use and obtain one; MSDS contents for each hazardous substance or class of substances; explanation of the "Right to Know"; identification of where employees can see the employer's written hazard communication program and where hazardous substances are present in their work area; the health hazards of substances in the work area, how to detect their presence, and specific protective measures to be used. Your responsibilities under T.P. Electric, Inc.'s Hazard Communication Program:

- Ensure that you have received OSHA hazard communication training prior to working with any chemical that may be hazardous
- If you have any questions or concerns regarding the chemical in use, ensure that your questions are addressed by site management before working with the chemical.
- Ensure that all PPE requirements are met
- Ensure that chemicals are properly stored in an approved storage device and cabinet
- Chemical containers must be properly sealed when not in use

### **Confined Space**

T.P. Electric, Inc. maintains an OSHA compliance program that addresses confined spaces in the workplace. OSHA defines a confined space as a space that is large enough for an employee to enter or break the plane of entry, has restricted means of entry or exit and is not designed for continuous employee occupancy. The space becomes "Permit-Required" for entry when it 1) contains or has the potential to contain a hazardous atmosphere or engulfing material 2) has a design that could lead to entrapment of a worker and/or 3) contains any other serious safety or health hazard that may endanger the life of a worker or interfere with his or her ability to escape unaided. Entry into confined space can be extremely dangerous. Possible hazards can include: oxygen deficiency, fire, explosion hazards, exposure to dangerous vapors and toxic gases, and physical hazards. All personnel involved in or having responsibility for entry into confined spaces must be thoroughly familiar with permit entry and rescue procedures. Your responsibilities under the T.P. Electric, Inc. Confined Space Program:

- Ensure that you have received confined space entry "Authorized Person" training prior to entering a permit-required confined space
- Ensure that you understand and have knowledge of all the identified confined spaces on each jobsite

- If a potential confined space has not been identified, report it to management immediately
- Follow all applicable safety procedures regarding confined space entry each time you enter a confined space
- Do not enter a confined space if any element of the safe entry procedure is violated

## **Material Handling**

The moving of material is a fundamental part of any job. T.P. Electric, Inc. maintains the policy that materials handling must be done in the safest way possible. If materials can be moved using a piece of machinery or mechanical device such as a dolly, fork truck or overhead crane, then that materials handling equipment should be used. Manual material handling should be employed as a last resort. Your responsibility under the T.P. Electric, Inc. materials handling policy is as follows:

### Manual Materials Handling

- Get proper exercise, maintain a good diet and manage stress
- If the object appears to be too heavy, large or awkward, get help
- Bend at your knees instead of at your waist and maintain your lumbar curve at all times
- Hold the object you are lifting as close to your body as possible
- Avoid a long reach to pick up an object
- Avoid unnecessary twisting
- Take your time and use the same techniques when setting the object down

### Powered Industrial Trucks/Material Handling Equipment

- Operators of forklifts and other specified vehicles shall be familiar with the equipment being operated and approved to use the equipment by TP Electric Inc
- All vehicles shall receive a thorough inspection prior to operation
- Defective or damaged items requiring maintenance or repair shall be reported to your supervisor for correction before the use or operation of the equipment
- Operators shall use seat belts or other restraints
- All manufacturer operating procedures and load ratings must be followed
- Operators shall obey all speed and traffic regulations
- Refueling of all internal combustion engines shall be conducted in a well ventilated area with the engine turned off
- All equipment shall be secured in the proper manner at the end of the work shift
- Forks, blades, or buckets shall be lowered to ground level and master controls, levers and brakes placed in the proper positions
- Never stand or walk under loads suspended overhead on a hoist, crane, or lift truck

## **Cranes, Hoists & Rigging**

Operators shall comply with the following basic rules while operating the crane and hoists:

- Make sure that the load slings or other approved single attachments are properly sized and seated in the hooked saddle
- Make sure that the load is free to move and will clear all obstructions
- Make sure that wire rope is in the sheave and drum grooves
- Warn personnel of an approaching load by roping off an area with red tape (when possible)
- Promptly report any malfunction, unusual performance or damage of lifting equipment
- Inspect rigging equipment prior to each use and keep appropriate maintenance records on crane inspections
- Make sure that the limit switches function properly
- DO NOT use damaged lifting equipment
- DO NOT use the wire rope as a sling or wrap the wire rope around the load
- DO NOT apply the load to the tip of the hook

- DO NOT attempt to lift more than the rated load
- DO NOT use limit switches as routine operation stop- they are emergency devices only
- DO NOT lift loads over people.

### **Scissor Lifts**

Scissor lifts are to be used only by properly trained employees. Scissor lifts, where the platform moves only in a vertical direction, do not require the use of personal fall arrest systems, unless railings or sections of railings are removed, or, unless instructed to use personal fall arrest systems by the lift manufacturer or jobsite management. Your responsibilities regarding the use of aerial lifts are as follows:

- Ensure you have received proper scissor lift safety training
- Perform and document required pre-operational inspection
- Adhere to all manufacturer ratings and recommendations
- Become familiar with emergency procedures
- Immediately report defective or malfunctioning equipment to your supervision

### **Aerial Lifts**

- Make sure that workers who operate aerial lifts are properly trained in the safe use of the equipment.
- Maintain and operate elevating work platforms according to the manufacturer's instructions.
- Never override hydraulic, mechanical, or electrical safety devices.
- Never move the equipment with workers in an elevated platform unless this is permitted by the manufacturer.
- Do not allow workers to position themselves between overhead hazards, such as joists and beams, and the rails of the basket. Movement of the lift could crush the worker(s).
- Maintain a minimum clearance of at least 10 feet, or 3 meters, away from the nearest energized overhead lines.
- Always treat power lines, wires and other conductors as energized, even if they are down or appear to be insulated.
- Use a body harness or restraining belt with a lanyard attached to the boom or basket to prevent the worker(s) from being ejected or pulled from the basket.
- Set the brakes and use wheel chocks when on an incline.
- Use outriggers, if provided.
- Do not exceed the load limits of the equipment. Allow for the combined weight of the worker, tools and materials.
- Use a spotters in high traffic areas

### **Scaffolding**

Scaffolds are to be erected and/or modified only by designated, competent personnel. All scaffolding must have top-rails, mid-rails and toe boards; otherwise a personal fall arrest system is required. Fall protection is required any time there is a fall hazard of 6 or more feet to a lower level. Only use scaffolding after it has been erected, inspected, and a competent person has issued and signed the approval tag.

### **Fall-Arrest Systems**

In addition to meeting the requirements of OSHA 29 CFR 1926.502(d), personal fall-arrest systems used on scaffolds are to be attached to a vertical lifeline or horizontal lifeline.

When lifelines are used, they must be fastened to fixed, safe points of anchorage, independent of the scaffold and capable of supporting a 5000 lb. static load. Additionally they must be protected from sharp edges and abrasion. It is dangerous and therefore impermissible for two or more vertical lifelines to be attached to each other, or to the same point of anchorage.

## Mobile Scaffolds

Mobile scaffolds are a type of supported scaffold set on wheels or casters. They are designed to be easily moved and are commonly used for things like painting and plastering, where workers must frequently change position. Note: The requirements in this section are specific to mobile scaffolds only.

### General Requirements:

Scaffolds must be plumb, level, and squared. To prevent collapse of the scaffold, to secure vertical members together laterally and to automatically square and align vertical members, scaffolds must be braced by cross-braces, horizontal braces or diagonal braces. All brace connections must be secured.

To prevent movement of the scaffold while it is being used in a stationary position, scaffold casters and wheels must be locked. Caster stems and wheel stems in scaffold legs or adjustment screws must be pinned, or otherwise secured.

## **Ladders**

The safe and proper use of ladders is imperative at T.P. Electric, Inc. jobsites. Your role in the safe use of ladders is integral to preventing workplace accidents. You are responsible for the following:

- All ladders must be inspected frequently and rechecked for soundness and proper working condition prior to daily use
- Ladders which have developed defects shall be withdrawn from service and properly tagged
- Extension ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one quarter (1/4) of the working length of the ladder (the distance along the ladder between the foot and the top support)
- Ladders must extend (3) feet above the point of support of eaves, gutters or roof line and should be tied off
- Only one person is permitted on a ladder at a time
- Ladders shall not be loaded beyond the manufacturers maximum rated capacity
- Step ladders must be fully opened and set level
- Do not stand on the top step of a stepladder
- Use only ladders that comply with OSHA design standards

## **Tools--Hand and Power**

Portable power tools pose a special danger to employees because they are deceptively small and light, yet they can do great bodily harm if used improperly or are poorly maintained. Your responsibilities when using portable hand and power tools are as follows:

- Power tools should not be used without the correct shield, guard, or attachment, as recommended by the manufacturer
- All cord-connected, electrically-operated tools and equipment should be effectively grounded or of the approved double insulated type
- Pneumatic and hydraulic hoses on power-operated tools should be checked regularly for deterioration or damage
- Power operated tools and equipment guards shall be inspected before each use.
- Portable electric power tools shall be double insulated, or grounded using a three conductor cord and a three prong plug
- Any damaged, defective or unsafe plug, cord or tool shall be reported to your supervisor immediately
- Tools and other materials shall not be left on stepladders, scaffolds, roofs or other places where they may be dislodged and fall
- Follow all manufacturer's requirements for safe use of all tools
- Extension cords must be 3-wire type

- Extension cords should be rated for hard or extra-hard usage
- Flexible cords shall be taken out of service if damaged

### **Fire Protection & Prevention, Including Portable Fire Extinguishers**

T.P. Electric, Inc. maintains a fire prevention *program* in-house and at all jobsites. Housekeeping, the disposal of combustibles scrap, and the proper storage of flammable and combustible material aid in accomplishing a fire safe work area. T.P. Electric, Inc. also maintains proper functioning fire extinguishers and an effective emergency response program in case of a fire emergency. In addition to the responsibilities located under emergency response and housekeeping, your responsibilities under T.P. Electric, Inc.'s fire prevention program are as follows:

- Do not attempt to extinguish a fire unless you have been properly trained
- Know where the nearest fire extinguisher is located in your work area
- When attempting to extinguish any fire, remember, start at the base of the fire and work your way into the fire, sweeping the nozzle from side-to side
- When using a hand held model remember P-A-S-S:
  - Pull the activation pin or Push down on the lever to activate
  - Aim at the base of the fire
  - Squeeze the handle
  - Sweep back and forth
- Obey all rules, regulations and signs for fire safety
- Flammable liquids shall be handled and stored in approved safety containers equipped with flame arrestors and spring actuated caps
- Flammable solvents and cleaning solutions shall be dispensed only from approved safety containers
- Smoking is prohibited where there is exposure to flammable materials, and other designated areas
- Report to a supervisor that an extinguisher has been used in order that it is replaced with a full fire extinguisher.
- Call the local fire department if a fire is too large or has the potential to become very large. Rely on professional fire fighters to control a fire that can grow beyond your abilities to control it.
- Portable fire extinguishers, if so designed, shall be inspected on an annual basis with an inspection tag so affixed to the extinguisher by a qualified extinguisher inspection service.
- Portable fire extinguishers shall be inspected on a monthly basis by a qualified individual for the following items as a minimum:
  - Confirm the extinguisher is visible, unobstructed, and in its designated location.
  - Verify the locking pin is intact and the tamper seal is unbroken.
  - Examine the extinguisher for obvious physical damage, corrosion, leakage, or clogged nozzle.
  - Confirm the pressure gauge or indicator is in the operable range or position, and lift the extinguisher to ensure it is still full.
  - Make sure the operating instructions on the nameplate are legible and facing outward.
  - Check the last professional service date on the tag. (A licensed fire extinguisher maintenance contractor must have inspected the extinguisher within the past 12 months.)
  - Initial and date the back of the tag.
- After the fire is extinguished observe it for ½ hour to make sure it does not rekindle.

### **Hot Work (Welding/Cutting)**

Health hazards from welding, cutting, and brazing operations include exposures to metal fumes and to ultraviolet (UV) radiation. Safety hazards from these operations include burns, eye damage, electrical shock, cuts, and crushed toes and fingers. Many of these can be controlled with proper work practices and personal protective equipment (PPE). Your responsibilities during welding, cutting or brazing operations are as follows:

- Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment

- Only approved apparatus may be used
- All electric power to the welder must be shut off when no one is in attendance
- Suitable fire extinguishing equipment must be available for immediate use before starting to ignite the welding torch
- Shields/screens must be used to confine heat, sparks and slag
- A fire watch will be assigned when welding or cutting is performed in locations containing combustible material
- Employees exposed to the hazards created by welding, cutting or brazing operations must be protected with personal protective equipment and FR clothing
- Check for adequate ventilation where welding or cutting is performed

## Lead

Exposure to lead is regulated by OSHA and applies to all personnel who are or may be occupationally exposed. If it is anticipated that job may result in a release of lead, alert your supervisor or crew leader and they will initiate the proper protective steps to avoid lead contamination or exposure. Lead can be a factor if you are burning, grinding or blasting coated surfaces. Lead is found in:

- Some paints
- Lead-acid storage batteries
- Water pipe solder
- Electrical components such as splices or connectors
- Fly ash, bottom ash, and boiler tube scale
- Printed circuit boards

## Trenching and Excavations

- Estimated location of utility installations shall be made prior to opening an excavation.
  - When excavations approach the estimated underground utilities the exact location of the utility should be determined by a competent person.
- Structural ramps used as a means of access or egress from an excavation shall be designed by a competent person.
  - Ramps and runways connected by two or more structural members shall have the structural members connected together to prevent displacement.
  - Cleats or other appropriate means to connect structural members shall be attached to the bottom of the runway or attached in some other manner to prevent tripping.
  - For any trench over 4 feet deep, the method of egress from the trench shall not have a travel distance of over 25 feet.
- When exposed to vehicular traffic all employees shall be provided with, and shall wear, warning vests or other garments made of highly visible material.
- No employee shall be permitted to work underneath overhead loads.
- When mobile equipment approaches the edge of an excavation, either stop logs or a warning system should be used (barricades, hand or mechanical signals).
- When there is a question as to the quality of air in an excavation:
  - The oxygen shall be tested prior to an employee entering a ditch over 4 feet in depth.
  - Adequate precautions should be taken, such as supplying ventilation, to prevent employee exposure to a concentration of flammable gases.
- Employees entering a confined space, such as a sewer pit, should be attached to emergency rescue equipment.
- Water in area of excavation:
  - Ditches, dikes or other methods should be provided to prevent surface water from entering the excavation or accumulate in areas adjacent to the excavation.

- Excavations subject to runoff water from heavy rains shall be inspected by a competent person prior to use.
- Where the stability of adjoining buildings, walls or other structures is endangered by excavation operations, support systems such as braces should be provided to provide support for the structures for the protection of the employees.
- Employees should be protected from loose rock or soil that could pose a hazard from falling into the excavation.
- Materials and equipment should be kept away from the edge of an excavation by a distance of two feet or a retaining device or both.
- Excavations should be inspected by a competent person:
  - Daily
  - After a rainstorm or other hazard increasing occurrence if there is an increase in employee exposure.
- If the competent person finds evidence of a possible hazardous situation the employees should be removed from the excavation until precautions have been taken to assure their safety.
- Walkways should be provided where employees or equipment moves over excavations.
  - Guardrails shall be provided for walkways if they are more than 6 feet over the lower level.
- Use spotters while excavating in a high traffic area

### **Driving Company Vehicles**

T.P. Electric, Inc. maintains a driving policy that affects all vehicles used during the course of our workday. Your responsibilities are outlined in the T.P. Electric, Inc. Fleet Safety Policy and a few are as follows:

- Wear seat belts
- You must have a valid and current license to drive a Company vehicle
- Check vehicles prior to operation to ensure they are in safe operating condition
- Do not exceed the speed limit
- Ensure that all vehicles are properly maintained
- Ensure that no digital media such as GPS, cell phone texting, music device or lap top computers shall be operated while driving. Drivers must pull safety off the road to operate such devices.
- Notify supervisor of any driving violations received during and outside of working hours
- Never use company vehicles while under the influence of intoxicants and other drugs. It is forbidden and is sufficient cause for discipline including dismissal.
- Never operate a company vehicle when your ability to do so safely has been impaired by illness, fatigue, injury, or prescription medication.

### **Noise**

When appropriate, noise monitoring will be conducted to ensure that noise levels are below the acceptable limit according to OSHA. In the workplace and at jobsites where noise levels can exceed the OSHA action level, and engineering controls are not feasible, employees are required to wear personal protective equipment to reduce the noise level to acceptable levels. An ongoing preventive health program will be utilized to educate employees in safe levels of noise, exposure, effects of noise on their health, and use of personal protection. Approved hearing protective equipment (noise attenuating devices) will be available to every employee working in areas where continuous noise levels exceed the action level (85 dB). To be effective, ear protectors must be properly fitted and employees will be instructed in their use and care.

### **Portable Fire Extinguishers**

- Portable fire extinguishers, if so designed, shall be inspected on an annual basis with an inspection tag so affixed to the extinguisher by a qualified extinguisher inspection service.
- Portable fire extinguishers shall be inspected on a monthly basis by a qualified individual for the following items as a minimum:

- Confirm the extinguisher is visible, unobstructed, and in its designated location.
- Verify the locking pin is intact and the tamper seal is unbroken.
- Examine the extinguisher for obvious physical damage, corrosion, leakage, or clogged nozzle.
- Confirm the pressure gauge or indicator is in the operable range or position, and lift the extinguisher to ensure it is still full.
- Make sure the operating instructions on the nameplate are legible and facing outward.

Check the last professional service date on the tag. (A licensed fire extinguisher maintenance contractor must have inspected the extinguisher within the past 12 months.)

Initial and date the back of the tag.

- If the portable fire extinguisher is used, it should immediately be reported and turned into the Shop for replacement in the event it needs to be used again.
- Use of a portable fire extinguisher should be done using the P.A.S.S. system:  
P—Pull the pin  
A—Aim the extinguisher at the base of the fire (not directly on the fire)  
S—Squeeze the handle  
S—Sweep the base of the fire
- After the fire is extinguished observe it for ½ hour to make sure it does not rekindle.
- If the fire potential appears great or injurious to the person(s) trying to extinguish the fire, immediately call 911 for professional assistance. Do not endanger the T.P. Electric employee.

### **First Aid**

T.P. Electric shall at all times have their employees at a jobsite provided with adequate first aid protection. This can be provided in one of several ways.

- In the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite (approximately 3-4 minutes response time, which is available for the treatment of injured employees, a person who has a valid certificate in first-aid training from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid.
- First aid supplies shall be easily accessible when required.
- The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked by the employer before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced.
- Proper equipment for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service, shall be provided.
- In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted.
- Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency.
- If the project is in a remote location, inform the closest first aid responders of the location.

It is the responsibility of the Project Manager to evaluate the jobsite location to determine the type of required first aid protection.

### **Asbestos Awareness**

Asbestos is a material that for many years was a very common insulating material. This is not as true as it once was. However, there are still many places at jobsites where T.P. Electric employees may be exposed to asbestos, especially

older buildings.. For this reason, all employees of the company must always be aware that there is the potential to be exposed to asbestos and under no circumstances should they do any work or procedure that would cause this exposure.

The OSHA regulations for asbestos are extensive. T.P. Electric will comply with these regulations at all times.

One the primary difficulties of dealing with asbestos is that it is not always possible to identify a material as asbestos unless it is tested by a laboratory familiar with this product.

To avoid being exposed to asbestos, you must be aware of the locations it is likely to be found. If you do not know whether something is asbestos or not, assume that it is until it is verified otherwise. Remember that you cannot tell if floor tile or insulation contains asbestos just by looking at them. If you have reason to suspect that something is asbestos, either because it is labeled as such, or because it is something that is likely to contain asbestos (9" floor tile, for example) DO NOT DISTURB IT.

Never do the following to any asbestos containing materials or suspected materials:

Drill	Break
Hammer	Damage
Cut	Move
Saw	Disturb

If anyone discovers or accidentally damages materials suspected of containing asbestos, they should be instructed to:

- Leave the area immediately and report the situation to their supervisor.
- Post signs and control access to the area.
- The supervisor must report the damage to the facility safety personnel.
- ACM can be removed/abated by properly trained authorized personnel only.
- It is the responsibility of the Product Manager to evaluate the jobsite location to determine any potential exposure to asbestos..

#### SUMMARY

This handbook is intended to be an overview of T.P. Electric, Inc. health and safety policies, as well as a helpful field reference for our employees. It is by no means all-inclusive. Our policies are established using the most current U.S. Department of Labor Occupational Safety and Health Administration standards and are subject to change at any time.

SAFETY COMMITMENT

I certify that I have received the T.P. Electric, Inc. Health and Safety Handbook and will familiarize myself with its contents. I am aware that I am responsible for my safety and the safety of others. I agree to abide by the rules set forth by the Company as a condition of my employment.

Employee Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Safety \_\_\_\_\_

OUR GOALS ARE ZERO ACCIDENTS AND ZERO INJURIES