

Muska

Companies

SAFETY AWAR

PROGRAM



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A.W.A.I.R. PROGRAM

I. SAFETY POLICY STATEMENT

The objective of the Workplace Safety Program is to reduce the frequency and severity of accidents and injuries.

To be successful, such a program must embody the proper attitudes towards accident prevention on the part of management, supervisors, and employees. It also requires cooperation in all safety and health matters, not only between supervisors and employees, but also between each employee and his/her fellow workers. Only through such a cooperative effort can a safety record in the best interest of all be established and maintained.

As employees, you are responsible for wholehearted, genuine cooperation with all aspects of the Workplace Safety Program, including compliance with all rules and regulations and for continuously practicing safety while performing your duties.

Accidents cost time and money, but most of all, accidents often cost lives.

The Company Safety Coordinator and Supervisors have the full support of management in enforcing the provisions of this policy as it relates to the responsibilities assigned to them.

We hope you will share our concern for providing a safe place in which to work because to make this Workplace Safety Program effective, all of us must work together. Help yourself and your co-workers to be aware of and practice safe work habits.

Therefore, it will be the philosophy of Muska Electric that all Supervisors will be held accountable for the safety of each of their employees. Supervisors will be responsible for enforcing all safety rules and policies as outlined in the safety program.

Ronald Von Bank

Ronald Von Bank
Safety Coordinator

MUSKA COMPANIES

AWAIR ANNUAL GOALS--2017

GOAL #1:

Maintain accident/incident frequency rate at or below the industry average.

Industry Average: **3.7** 2016 Results: **0.91**

GOAL #2:

Complete required training for all affected employees:

<i>TRAINING PROGRAM</i>	<i>DATE SCHEDULED</i>
AWAIR	<u>September 21, 2017</u>
Asbestos Policy	<u>February 8, 2017</u>
Back Injury Prevention	<u>February 8, 2017</u>
Emergency Procedures	<u>September 21, 2017</u>
Employee Right-To-Know	<u>September 21, 2017</u>
Fall Protection	<u>September 21, 2017</u>
Fire Extinguisher	<u>February 8, 2017</u>
Ladders	<u>February 8, 2017</u>
Lifts (Aerial & Scissors)	<u>February 8, 2017</u>
Lockout/Tagout	<u>February, 08 2017</u>
Personal Protective Equipment	<u>September 21, 2017</u>
Scaffolding	<u>February 8, 2017</u>

GOAL #3:

Complete Bi-Monthly Safety Committee Meetings:

<i>DATE SCHEDULED</i>		
January 26, 2017	March 30, 2017	May 25, 2017
July 27, 2017	September 28, 2017	November 30, 2017

RESPONSIBILITIES

Management

The management team of Muska Electric must demonstrate a positive attitude toward the achievement of a strong Workplace Safety Program, with the objective of reducing personal injury and property damage. To aid in the realization of a strong Workplace Safety Program, management will do the following:

- Create a safe work environment for all employees.
- Make the necessary appropriations to meet the requirements of an effective Workplace Safety Program.
- Include the discussion of safety issues at staff meetings and other appropriate occasions.
- Carry out and enforce the Workplace Safety Program.
- Assure development of policies and programs to meet the legal requirements of the Federal Occupational Safety and Health Act and applicable state/local regulations.
- Use personal protective equipment where necessary, obey all applicable safety rules, and demand the same of all members of management.
- Delegate responsibility for safety to front-line supervisory personnel and annually review their progress in this area.

Company Safety Coordinator

The Company Safety Coordinator is responsible for the implementation of the Workplace Safety Program. The Company Safety Coordinator has the following responsibilities:

- Develop and implement safety policies and procedures designed to assure compliance with the rules and regulations of federal, state, and local regulatory agencies. Provide uniform direction of accepted safety practices throughout the company.
- Manage the administration of the Workplace Safety Program, and coordinate all safety activities as a representative of management.
- Develop and coordinate employee safety training programs. Assure that new employees receive a proper orientation to the Workplace Safety Program.
- Maintain company injury and illness statistics.
- Update injury and illness statistics on a quarterly basis and communicate statistical information to management and supervisors.
- Monitor the performance of the safety program to be aware of trends, potential problems, predominant loss types and overall progress of the

program. Assist management with solving persistent accident problems and other non-routine safety difficulties.

- Consult with safety representatives of insurance companies to coordinate their services with the Company's Workplace Safety Program.
- Direct the investigation of all accidents, and if necessary, visit the scene of the accident to assure that measures are undertaken to prevent their reoccurrence.
- Prepare necessary accident records. Assure prompt filing of required reports with the insurance carrier, state and/or local authorities and the Safety Coordinator.
- Process injury reports, medical bills, and recordkeeping according to OSHA and state requirements.
- Monitor medical reports and progress with employee and workers' compensation carrier, and make recommendations on an early return to work program or appropriate alternative actions.
- Be familiar with applicable safety codes and construction industry safety standards.
- Establish and maintain a recordkeeping system that meets all regulatory requirements.
- Keep abreast of current information regarding OSHA regulations.
- Maintain central records for safety-related issues (i.e. Safety Team meeting minutes, personnel training, etc.).
- Undertake prompt appropriate action on any safety recommendation. If any unsafe condition is out of the control of the Company, issue written notification of the unsafe condition to the owner/general contractor.
- Assist in the procurement and distribution of appropriate personal protective equipment and ensure enforcement regarding the use of it.
- Ensure that a system is in place to provide properly maintained and inspected tools, machinery, or equipment.
- Conduct periodic safety inspections for recognition and correction of safety hazards.
- Provide leadership to the Safety and Health Team.
- Assure that new employees receive proper orientation ensuring consistency of information to all new employees regarding safety policies, procedures, and related information.
- Maintain a library of reference manuals and materials.

Supervisors

1. Responsible for on-the-job safety and health.
2. Carry out and actively enforce the Safety and Health Program.
3. Plan production so that all work will be done in compliance with established safety regulations.
4. Make sure proper safety materials and protective devices are available and used.
5. Instruct and advise employees on new equipment, procedures, operations, or jobs as they relate to the prevention and control of accidents.
6. Correct all hazards, including unsafe acts and conditions which are in the scope of your position.
7. Ensure that all injuries are treated immediately and reported promptly.
8. Investigate all accidents, near-miss accidents and injuries to determine the cause and initiate corrective action. Supervise the correction of unsafe acts or conditions. Complete an Accident Investigation Report and turn it into the Human Resources Department and Safety Coordinator within 24 hours of the incident.
9. Review and advise personnel on new equipment, procedures, or operations as they relate to the prevention and control of accidents
10. Discuss safety issues with all employees reporting to you.
11. Monitor the progress and make sure restrictions are being followed by employees who have returned to work following an injury.
12. Conduct department inspections for recognition and correction of hazards.
13. Investigate and review accidents to determine causes and corrective actions to prevent recurrence.
14. Evaluate existing jobs to accommodate any work-related injury.

Employees

Employees are reminded that safety is an integral part of the operations of the Company. With this in mind, each employee shall observe all safety rules and regulations. Employees' safety responsibilities are as follows:

- Prior to performing any task, think of the hazard that task presents and how you will protect yourself from it.
- Observe and comply with the Workplace Safety Program and all applicable federal, state, and local safety regulations.
- Work safely in such a manner as to ensure your own safety, as well as that of co-workers and others.
- Request assistance when unsure about how to perform any task safely.
- Correct unsafe acts or conditions within the scope of your position.
- Report any uncorrected unsafe acts or conditions to their supervisor.
- Use and maintain all safety devices provided.
- Report all accidents to the supervisor immediately, regardless of the seriousness.

- Actively participate in safety activities such as safety meetings and other related training.
- Read and understand all rules within the Workplace Safety Program.
- Inspect personal protective equipment prior to its use. If the equipment is defective do not use it, and notify your immediate supervisor.

Subcontractors

Because subcontractors of the Company act as independent contractors, it is their responsibility to comply with the applicable federal, state, and local safety regulations. However, it is our responsibility to monitor their safety activities. This is done not with the intention of dictating the safety program of our subcontractors, but rather to provide for the well-being of all parties involved on our projects. The Company will require the following:

- All subcontractors of the Company must cooperate and comply with the established loss prevention activities so as not to create hazards or conditions that could result in injury to our employees.
- Every subcontractor must furnish their own safety equipment to their individual employees.
- Every subcontractor must have their own workplace safety program.
- The Company's subcontract agreement must be executed prior to the subcontractor commencing activities at the workplace.
- Notify the Company of all accidents and injuries occurring on the project within 24 hours of the occurrence.
- Certificate of Insurance.

II. ACCIDENT INVESTIGATION

A. POLICY

The purpose of the accident investigation is to determine what factors, conditions, and/or practices contributed to the accident. Once the information is gathered, proper action can be taken to prevent a recurrence. Minor incidents or close calls should also be investigated as they are warning of potential hazards that could result in serious injuries or illness to employees in the future. All accidents, regardless of the seriousness of the personal injury or property damage will be thoroughly investigated by the jobsite Supervisors.

B. PROCEDURE

1. All accidents are to be called in to the Safety Coordinator by the Supervisor immediately following the report of an accident.
2. The Supervisor must document the investigation on the Accident Investigation Report. The accident "cause" and "corrective action taken" must be thoroughly explained.
3. It is up to the Supervisor to ensure that all causes are determined and that corrective action is taken.
4. The Supervisor must turn the report into the Safety Coordinator within 24 hours of the incident.
5. The Safety Coordinator will review and monitor all accident investigations to determine any corrective action that shall take place and any follow up that may be needed.
6. In an effort to measure the progress and results of accident investigation, all Supervisors will be provided with a summary and analysis of all accidents on a periodic basis.
7. The Safety and Health Committee will review all accident investigations.
8. Refer to "Injury Reporting Procedures."
9. Muska Electric shall immediately notify servicing company any time that equipment or property is damaged or broken. If the incident creates an emergency, notify the servicing company's supervisory unit as soon as possible.

IV. OCCUPATIONAL INJURY MANAGEMENT

A. POLICY

In the event that there is a work-related accident, Muska Electric will make sure that the injured employee is cared for and receives appropriate medical attention. In addition, the accident will be investigated to determine the cause and to ensure that corrective action is taken to prevent a recurrence.

Management supports the philosophies of "return to work" and will make every effort to accommodate an injured employee to return to work, as soon as medically able, either in a modified duty capacity, or in another position that remains within the physical limitations as determined by the medical provider.

The Safety Coordinator will be responsible for ensuring that all administrative procedures are followed when an injury occurs. This includes coordinating the return to work with the Supervisor, insurance carrier, injured employee, and the medical provider.

B. INJURY REPORTING PROCEDURE

The following procedures are designed to ensure that the injured employee receives prompt medical care, to promote a rapid recovery and early return to work.

1. IMMEDIATE CARE OF INJURED EMPLOYEE

- a. All accidents and injuries must be reported **immediately** to the Site Supervisor / Safety Coordinator - **Ronald Von Bank**. Upon notice of an accident or injury, the Supervisor or other responsible person should call Medcor determine the severity of the injury and help with the referral process if necessary, contact the Safety Coordinator as soon as possible.
- b. If the injury is **life threatening**, call 911 immediately.
- c. If the injury is **non-life threatening**, but requires medical attention, the employee should be taken to the nearest designated medical provider. Whenever possible, call the medical provider to let them know that the injured employee is on his or her way.
- d. For all injuries requiring medical attention, a post-accident drug screening will also be mandatory.
- e. At the time of injury, the employee may not need medical treatment. If at a later date the employee decides that a medical opinion is necessary, the employee should advise the Supervisor prior to seeking a medical opinion.

2. REPORTING FORMS

- a. All accidents must be investigated immediately. Therefore, upon notice of the injury, the employee and Supervisor will complete an Accident Investigation Report together.
- b. After the Accident Investigation Report has been completed, the Supervisor will give a copy to the Safety Coordinator. The Safety Coordinator will complete the First Report of Injury and send it to the insurance carrier within 24 hours of the accident / incident.
- c. A copy of the First Report of Injury must be retained for the OSHA 300 Log and future reference.

3. RETURN TO WORK

- a. After the injured employee has received medical treatment, the employee should contact the Safety Coordinator with a medical report from the treating physician advising Muska Company of the employee's medical status to make arrangements for return to work.
- b. The site Supervisor will review the report with the employee to determine if the employee can return to his or her regular job or a modified job.
 - 1) If there are work restrictions, many times a slight modification to an existing job on a temporary basis will allow an employee to return to work.
 - 2) The employee should immediately report any aggravation of the injury or inability to perform the job to his or her Supervisor.

- 3) The site Supervisor should monitor the employee during the workday to determine if the employee is capable of performing the job and to make sure that restrictions are being followed.
 - 4) The injured employee's progress should be reported to the Safety Coordinator on a regular basis.
- 4. DELAYED RETURN TO WORK**
- a. An injured employee who is disabled from work will be contacted by the Safety Coordinator to address any questions or concerns that the injured employee may have and to emphasize the Company's concern.
 - b. If the injured employee is disabled from work for an extended period of time, the Safety Coordinator or designated Company representative should contact the injured employee on a regular basis, again to emphasize the Company's concern.

V. NEW EMPLOYEE ORIENTATION

A. POLICY

Muska Electric will instruct all employees in the recognition and avoidance of unsafe conditions and the regulations applicable to his or her work. The best time to begin this instruction is on the day the new employee reports to work.

B. PROCEDURE

When possible, all new hires of Muska Electric will report to the office on their first day of employment. All necessary formwork will be completed from the employee packet at this time. Upon completion of administrative formwork, the employee will then report to the Safety Coordinator where the employee will be informed of safety requirements. New Employee Orientation will be done at this time. The employee will sign off on all necessary formwork. When this is not possible, New Employee Orientation will be directed through the Safety Coordinator to the site Supervisor.

Basic orientation includes:

1. Review the Safety and Health Program and all requirements.
2. Review employee responsibilities from the responsibilities section.
3. If an employee is to operate a motor vehicle, heavy equipment, fork trucks, powder actuated tools, see that he or she has valid certification.
4. Explain accident reporting procedures and medical treatment facilities.
5. Explain any specific hazards involved in the particular work he or she is to perform and how to avoid them.
6. Explain the required use of personal protective equipment and how he or she shall procure the required items. Issue safety items to be used.
7. Stress the hazards and accident prevention requirements for the following:
 - a. Employee Right-To-Know Program
 - b. Lockout/Tagout Program
 - c. Respiratory Program

8. Have employee sign off on all necessary formwork.

VI. SAFETY AND HEALTH COMMITTEE

A. MISSION STATEMENT

To create and maintain interest in safety and health. To act as representatives of all Company employees. To aid and advise all employees on matters of safety and health which pertain to Company operations.

B. GOALS

1. To reduce the number and severity of injuries.
2. To educate employees on proper safety practices.
3. To make safety "a way of life."

C. RESPONSIBILITIES

1. Solicit and listen to fellow workers' suggestions and concerns.
2. Review accidents and recommend corrective actions.
3. Discuss possible new methods of accident prevention.
4. Pursue safety education through films, demonstrations, videos, training, etc.
5. Develop and revise rules to comply with all safety and health standards, federal, state, and local.
6. Discuss and review trends in personal protective equipment.
7. Develop incentives to improve safety awareness.
8. Discuss and review progress of the safety committee.
9. Develop a statistical base for measuring progress toward program objectives on a quarterly basis.
10. Document each meeting with new and old business. Posts minutes in office and send copies to all employees with payroll.

D. MEMBERSHIP

The committee will meet on a bi-monthly basis and will rotate various members into the meetings as needed. These rotated members may include management, Supervisors, field employees, shop employees, and office personnel.

VII. SAFETY INSPECTIONS

A. POLICY

The recognition and correction of accident causes is a continuing duty of the Safety Coordinator and Supervisors while making their daily rounds. This is an excellent means of evaluating the overall project for shortcomings or breakdowns in the accident prevention effort.

B. PROCEDURE

1. On a weekly basis, the Supervisors shall make a safety inspection of the jobsite. The inspection may be documented on the Jobsite Inspection Checklist (**Appendix B**).

2. The Safety Coordinator and/or Supervisor shall define the deficiency and initiate any corrective action for any hazards that are identified during the inspection.
3. The Safety Coordinator and/or Supervisor will determine any follow-up that is needed and monitor its progress.
4. A copy of the Jobsite Inspection Checklist should be given to the Safety Coordinator to be kept on file.
5. The Safety Coordinator and/or Supervisor will determine any follow-up that is needed and monitor its progress.
6. Any questions regarding safety and health should be directed to the Safety Coordinator.

VIII. SAFETY TOOL BOX MEETINGS

A. POLICY

Toolbox talks are excellent means of communicating pertinent safety issues to field/shop employees. The Safety Coordinator will issue specific toolbox talks to all Supervisors. The Supervisors will review one toolbox talk to all crewmembers on a weekly basis or as necessary.

B. PROCEDURE

1. The Supervisors shall hold safety toolbox talks on a weekly basis on all required jobs.
2. The meetings should be short in duration (preferably ten minutes). Accidents or near accidents should be reviewed and actions to prevent recurrence discussed.
3. Safe ways of performing work tasks should be reviewed. This may include discussions on manual material handling, fall protection, scaffolding, ladders, personnel platforms, etc.
4. All employees in attendance shall sign off on the toolbox talk meeting log.
5. The toolbox talk shall be filed in the field office for documentation purposes and/or sent to the Safety Coordinator.
6. For those jobsites where the general contractor holds the toolbox meetings, the Supervisor does not have to hold an additional meeting. However, the Supervisor must still obtain documentation of what was discussed and who was in attendance and file this in the field office.

IX. SAFETY MEETINGS

A. POLICY

Documented employee safety training is critical to our program. It ensures that workers are made aware of workplace hazards and that the appropriate precautions are taken to avoid an accident and/or an injury. To satisfy established training requirements, the following should be considered.

B. PROCEDURES

1. The Safety Coordinator, Supervisors, or key manager should conduct or oversee all training. If qualified, a lead person or key employee may perform certain training functions with the approval of the Safety Coordinator. Also, outside experts may be utilized on occasion.
2. Training is required in the following situations:
 - a. When new employees are hired.
 - b. When employees transfer to a new work area.
 - c. When employees are required to perform a new job function.
 - d. When employees return to work after a long layoff, illness, or injury.
 - e. For employees who perform unusual, seasonal, or extremely hazardous jobs.
 - f. For all employees, when operations or processes change significantly.
 - g. For all Supervisors, managers, and lead employees to ensure they are familiar with all safety program elements.
 - h. Whenever mandated by outside regulatory agencies such as OSHA.
3. All training sessions must be documented on a training log, indicating who was trained, date trained, who completed the training, and what was covered in the session.
4. The key areas to cover in training are:
 - a. Overall safety rules.
 - b. Specific safety rules for individual job tasks.
 - c. OSHA mandated training requirements.
 - d. Emergency procedures.
5. Key considerations for effective training:
 - a. Be prepared and knowledgeable about the subject matter.
 - b. Make clear the objectives of the training.
 - c. Be enthusiastic.
 - d. Relate the training to the employee's job.
 - e. Ask questions of employee(s) to determine understanding.
 - f. Conduct the training in a comfortable and suitable environment (i.e. quiet, clean at jobsite).
 - g. Vary the delivery, to maintain interest.

X. SAFETY RULES

A. ASBESTOS

Over the years, the construction industry used approximately 50% of our nation's supply of asbestos. Seventy percent of the world's supply of asbestos is used by the construction businesses. Properties that make this material valuable in construction are its resistance to heat and corrosive chemicals, flexibility, high tensile strength, and good frictional characteristics. However, airborne asbestos fibers can be carried into the body and become imbedded in the tissues of the lungs and digestive system and once entrapped, they cannot be removed.

Asbestos has been linked with serious disease such as asbestosis (a debilitating lung disease), mesothelioma (a rare cancer of the chest and abdominal lining), and cancers of the lung, esophagus, stomach, and colon, among other organs. The correlation between the degree of health risk and the level of exposure is complex. However, it is generally accepted that **THERE IS NO THRESHOLD VALUE BELOW WHICH THERE IS NOT SOME DEGREE OF RISK TO HEALTH FROM EXPOSURE TO ASBESTOS.**

Three forms of asbestos are commonly found in buildings:

1. Sprayed or troweled-on surfacing materials.
2. Insulation on pipes, boilers, and ducts.
3. Other forms such as wallboard, ceiling tiles, and floor tiles.

The asbestos in the first two categories can be friable (easily crumbled or pulverized by hand pressure). These forms are of most concern since this material is more likely than nonfriable materials to release fibers when disturbed or damaged. Generally, nonfriable material is of less concern, but it should not be ignored completely. When nonfriable material is cut, drilled, sanded, or broken, fibers will be released creating the potential for exposure.

Materials meeting the above listed criteria on buildings and equipment built prior to 1981 shall be treated as though they have asbestos containing material unless they are inspected and found to contain 1% or less of asbestos.

Ultimately, it is the building owner's responsibility to be aware of and fully responsible if the building contains asbestos material. Before permitting employees to start any demolition, restoration, or remodeling project where an owner has, or should have, reason to believe there are asbestos containing materials, a survey by a qualified person shall be made to determine if there are asbestos containing materials present in the structure. The project controlling employer shall have written evidence that an evaluation has been performed.

IN THE EVENT THAT A MUSKA ELECTRIC EMPLOYEE ENCOUNTERS ASBESTOS OR EVEN SUSPECTS THAT IT IS PRESENT WHILE PERFORMING A JOB, WORK IN THAT AREA SHOULD BE DISCONTINUED AND THE JOB SUPERVISOR OR APPROPRIATE MUSKA ELECTRIC REPRESENTATIVE NOTIFIED IMMEDIATELY. UNDER NO CIRCUMSTANCES WILL AN EMPLOYEE OF MUSKA ELECTRIC ENGAGE IN THE REMOVAL OR DISTURBANCE OF ANY ASBESTOS CONTAINING MATERIAL.

B. CHIPPING, TRIMMING AND GRINDING

1. Safety glasses and a protective face shield will be used whenever chipping or grinding.
2. Gloves should be worn to protect hands and wrists.
3. Gloves will be worn when wire brushing.
4. All grinding wheels larger than (2) inches diameter shall be equipped with a guard.
5. Passersby shall be protected by the use of curtains around grinding operations in areas of travel.
6. Bench mounted grinders shall be equipped with tongue guards, wheel guards, and tool rests. These must be maintained at a distance of 1/8 inch from the wheel and adjusted with wheel wear.
7. Grinding shall not be done in explosive atmospheres.

C. CUTTING AND WELDING (HOT WORK)

1. When moving and storing cylinders, make sure the cylinder valves are closed, caps are on, and the space is dry, and if acetylene, properly ventilated. Tilt and roll on bottom edges; avoid dropping. Secure in vertical position.
2. When hoisting cylinders, use pallet, cradle, or sling board; do not use choker sling or magnet.
3. When cutting or welding, protect cylinders from sparks, hot slag or flame by separating them, or use fire resistance shields.
4. Use friction lighters (not matches, cigarettes, etc.) to light torches.
5. When work is finished or cylinders are empty, make sure cylinder valves are closed and the caps are on.
6. Store regulators, hoses, etc. in a clean, dry, ventilated space.
7. Oxygen and acetylene cylinders must be separated by a firewall or a minimum of 20 feet when in storage.
8. Flash back safety valves shall be used on all hoses and lines at the gauges and manifolds.
9. Eye protection is required.
10. Only standard electric arc welding equipment such as generators, motor generator units, transformers, etc., conforming to the requirements of the National Electrical Manufacturer's Association or the Underwriters Lab., Inc., or both, should be used.
11. All electric welding machines shall be properly grounded, and all electrical cables inspected prior to use for damage, excess fraying and loose connections.
12. Where it is necessary to couple several lengths of cable for use as a welding lead circuit, insulated connectors should be used on both the ground and electrode holder lines if occasional coupling or uncoupling is needed.
13. Wherever practicable, shield anyone in work area from the direct rays of the arc; barricade hot material.

14. Regulators and gauges shall only be repaired by qualified suppliers.

D. EQUIPMENT MAINTENANCE

Employees are responsible for maintaining equipment in proper working order. This includes inspecting and cleaning equipment both on the job and in the shop. If equipment is damaged or defective, employees must tag and when in the field return the equipment to the shop for repair. The Equipment Coordinator or Shop Supervisor will assess the damage or defect and make appropriate repairs. Only after repairs have been completed, will the equipment be sent out to a new job or put back in use in the shop.

When working on equipment or machinery, the employee must ensure that it is isolated from all potentially hazardous energy before performing service or maintenance. This hazardous energy may include unexpected energization or start up and release of stored energy (i.e., unplugging tools, chocking tires).

E. FALL PROTECTION

1. FLOOR OPENINGS

- a. All floor openings where falls of 6 feet or more could occur shall be protected by a guardrail system that consists of a top rail, intermediate rail, a toe board and posts. The top rail height should have a vertical height of 42 inches from the top surface of the floor. An intermediate rail should be between the top rail and the floor. A toe board 4 inches in vertical height from the floor and securely fastened in place not more than 1/4 inch above the floor should be erected.
- b. Most guardrails will be constructed of wood. The posts should be not less than 2x4-inch stock spaced no more than 8 feet apart. The intermediate rail should be not less than 1x6 inch stock. The toe board should not be less than 1x4 inch stock. The entire system should be capable of withstanding a 200-pound load in any direction.
- c. Guardrails can be also constructed out of other materials that will meet the prescribed standards. This includes wire rope.
- d. Guardrails must be inspected and maintained on a regular basis.
- e. In the event guardrails are not feasible, employees shall tie off, use safety nets, or covers.

2. WALL OPENINGS

- a. All wall openings where falls of 6 feet or more could occur shall be protected by a guard rail system that consists of a top rail, intermediate rail, toe boards and posts.
- b. If a full solid barrier is used, it must meet the requirements of a guardrail system.
- c. In the event guardrails are not feasible, employees shall tie off or use safety nets.

3. **LOW-SLOPE ROOFS** - Less than or equal to 4 in 12 pitch
- a. Warning line systems used on low-slope roofs greater than 6 feet from the ground shall comply with the following provisions:
- 1) The warning line shall be erected around all sides of the roof work area.
 - 2) When mechanical equipment is not being used, the warning line shall be erected not less than 6 feet from the roof edge.
 - 3) When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet from the roof edge which is perpendicular to the direction of mechanical equipment operation.
 - 4) Points of access, material handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.
 - 5) When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.
 - 6) Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:
 - 7) The rope, wire, or chain shall be flagged at not more than 6-foot intervals with high visibility material.
 - 8) The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface.
 - 9) After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge.
 - 10) The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions.
 - 11) The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
 - 12) No employee shall be allowed in the area between a roof edge and a warning line unless the employee is performing roofing work in that area.
 - 13) A warning line system should be used in combination with guardrail system, safety net system, personal fall arrest system, or safety monitoring system.

- 14) The mechanical equipment on roofs shall be used or stored only in areas where employees are protected by a warning line system, guardrail system, or personal fall arrest system.
 - 15) In the event warning lines are not feasible, employees shall tie off, use guardrails or use a safety net system.
- b. Safety monitoring systems used on low-slope roofs greater than 6 feet from the ground shall comply with the following provisions:
- 1) On roofs 50 feet or less in width, the use of a safety monitoring system alone is allowed. Otherwise, monitoring is used in combination with warning line systems.
 - 2) The safety monitor shall be competent to recognize fall hazards.
 - 3) The safety monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner.
 - 4) The safety monitor shall be on the same walking/working surface and within voice and visual contact.
 - 5) The safety monitor shall be close enough to communicate orally with the employee.
 - 6) The safety monitor shall not have other responsibilities which could take the monitor's attention from the monitoring function.
 - 7) Mechanical equipment shall not be used or stored in areas where safety-monitoring systems are being used to monitor employees engaged in roofing operations on low slope roofs.
 - 8) No employee, other than an employee engaged in roofing work (on low sloped roofs) or an employee covered by a fall protection plan, shall be allowed in an area where an employee is being protected by a safety monitoring system.
 - 9) Each employee working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.
 - 10) In the event monitoring is not feasible, employees shall tie off, use guardrails, or use a safety net system.
4. **STEEP ROOFS** - Greater than a 4 in 12 pitch
- a. All employees who engage in roofing work at an elevation of 6 feet or greater must be protected from falling from all unprotected sides and edges.
 - b. Fall protection must be provided by a standard guardrail system, tying-off, or a safety net system.
5. **FLOOR HOLES** - 2 inch in diameter or greater
- a. Floor holes are best covered with material equal in strength to the surrounding floor.
 - b. The covers must be secured in place to prevent movement or lifting. This can be done by fastening directly to the floor or cleating.
 - c. Floor opening and covers must be identified. A warning sign in bright red letters reading **Floor Hole** or **Floor Cover** on each cover.

F. FIRE PROTECTION

Firefighting equipment must be conspicuously located and readily accessible at all times.

1. Familiarize yourself with the location and use of all firefighting equipment.
2. Firefighting equipment shall be inspected so that all equipment is maintained and in operating condition.
3. Report damaged or missing equipment to the Supervisor.
4. Tampering with or unauthorized removal of firefighting equipment from assigned locations is prohibited.
5. Extinguishers, hydrants, hose stations, and fire doors must be kept clear of stored material and readily accessible at all times.
6. A type A,B,C fire extinguisher must be located nearby when performing welding and cutting operations.
7. Smoking is forbidden when refueling equipment. Obey all signs that indicate "NO SMOKING."
8. Only small quantities of flammable liquids are to be stored and dispensed from approved UL safety cans.
9. Only approved safety cans shall be used and properly labeled.
10. Flammables will be stored in approved flammable cabinets.
11. Firefighting equipment will be inspected by a qualified inspection service contractor on an annual basis.
12. **Muska Electric will ensure and require all matches to be safety matches and shall not allow the use of so-called kitchen (strike anywhere) matches. Lighters will only be of double-action, such as zippo.**

G. FORKLIFT OPERATION

Compliance to the following rules will prevent accidents, prolong the life of equipment, and reduce operating costs.

Training

1. Only trained and authorized employees may operate forklifts or powered industrial trucks.
2. Classroom instruction, operational training, and evaluation of the operator's performance shall take place upon initial assignment.
3. Refresher training is required when any of the following conditions occur:
 - a. An operator is involved in an accident or a near-miss incident.
 - b. An operator is observed driving the vehicle in an unsafe manner.
 - c. An operator is assigned to a different type of truck.
 - d. It is determined during the operator's evaluation that he or she needs additional training.
 - e. When there are changes in the workplace that may affect safe operation of the truck. (This could include a different type of paving, reconfiguration of storage racks, new construction leading to narrower aisles or restricted visibility.)
4. Each operator's performance must be evaluated initially and at least once every three years.
5. All training and evaluations must be documented for each operator. Documentation/certification shall include the name of the operator,

- the date of the training, the date of the evaluation, and the identity of the person performing the training or evaluation.
6. Training program content shall cover:
 - a. Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate.
 - b. Differences between the truck and the automobile.
 - c. Truck controls and instrumentation: where they are located, what they do, and how they work.
 - d. Engine or motor operation.
 - e. Steering and maneuvering.
 - f. Visibility (including restrictions due to loading).
 - g. Fork and attachment adaptation, operation and use limitations.
 - h. Vehicle capacity.
 - i. Vehicle stability.
 - j. Vehicle inspection and maintenance.
 - k. Refueling and/or charging and recharging of batteries.
 - l. Operating limitations.
 - m. Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.
 - n. Surface conditions where the vehicle will be operated.
 - o. Composition of loads to be carried and load stability.
 - p. Load manipulation, stacking, and unstacking.
 - q. Pedestrian traffic.
 - r. Narrow aisles and other restricted places where the vehicle will be operated.
 - s. Hazardous locations where the vehicle will be operated.
 - t. Ramps and other sloped surfaces that could affect the vehicle's stability.
 - u. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust.
 - v. Other unique and potentially hazardous environmental conditions in the workplace that could affect safe operation.

Pre-Operational Inspection

1. The operator must inspect the forklift before each shift.
2. If the inspection reveals a problem with the forklift, do not operate it until repairs have been made.
3. All completed inspections must be turned into the operator's supervisor on a daily basis.

Basics of Operation

1. Inspect the truck before operation.
2. Operate trucks only within the manufacturer's rated load limit.
3. Always wear the seatbelt if equipped.
4. Always travel at speeds safe for existing conditions.
5. No one other than the operator shall ride on the truck.
6. Make certain that no persons or objects are in the path of the vehicle. Check clearances in all directions, particularly overhead.
7. When a lift is unattended, the forks must be fully lowered, controls set to neutral, the power shut off, and the parking brake applied.
8. Drive in reverse when transporting a load that obstructs your view.
9. All loads must be securely fastened and safely positioned.

10. Horns must be used at all blind corners, intersections, and pedestrian crosswalks.
11. Operators shall report to their supervisor all accidents involving injury, property damage, or a near miss.
12. Testing of airborne carbon monoxide fumes will be conducted on a quarterly basis to determine if airborne quantities exceed OSHA's PEL.
13. Testing of tailpipe exhaust gas will be conducted on a regular maintenance schedule to document that exhaust gas meets OSHA requirements.

H. GENERAL

1. All disruptive activities usually referred to as "horseplay" is forbidden and will be grounds for discharge.
2. For the protection of all, warning signs such as "Eye Protection Required", "No Smoking" will be posted wherever possible and are considered part of the Safety and Health Program. Thus, all employees shall obey these directions and aid in maintaining them.
3. Use or possession of alcoholic beverages or non-prescription drugs on the jobsite is forbidden. Anyone known to be under the influence of alcohol or drugs shall not be allowed to work.
4. All equipment should be used for designated use only.
5. Safety belts, harnesses, and lifelines must be used when other safe guards, such as nets, planking, or scaffolding cannot be used.
6. You are to report to work rested and physically fit for your job.
7. Jewelry (rings, bracelets, neck chains, etc.) should not be worn.
8. When longer hair is worn, it must be contained under the hard hat in such a manner as to not interfere with the intended design of the suspension system.

I. HOUSEKEEPING

A work area must be kept clean and orderly if it is to be safe and pleasant to work in. Housekeeping is a responsibility shared by all employees.

1. Remove combustible scrap and debris at regular intervals. Dispose of them in approved metal containers.
2. Covers are required on containers used for flammable or harmful substances.
3. At the end of each phase of work, return all tools and excess material to proper storage.
4. Stack and unstack material in an orderly manner to prevent it from collapsing.
5. Keep aisles and walkways clear and in good repair.
6. Spills of oil, grease or other material shall be removed immediately.
7. Areas around saws or other wood or steel working equipment shall be kept clean and free of excess scraps, chips and sawdust.
8. Paper drinking cups, lunch debris, and trash shall be placed in trash barrels for removal from the area.
9. All protruding nails in lumber must be removed or bent over.
10. Remember, a clean job is a safe job.

J. MACHINERY

1. All belts, couplings, gears and flywheels must be properly guarded. Guards should never be removed while the machine is in operation. When taken off for maintenance, they should be replaced immediately after completion.
2. Always test the "start" switch of a "locked out" machine before starting work on it to be sure it will not operate. Notify the operator before starting repairs.
3. An approved cleaning solvent must be used for tools, parts, machinery, and similar equipment. The use of gasoline, ether, or paint thinner is strictly prohibited.
4. When working on or repairing machines, the Company approved Lockout/Tagout Program should be followed.
5. Be aware of the equipment you operate. Identify any possible exposure areas prior to operating.
6. No employee should operate a machine they are unfamiliar with.
7. Do not operate any machine without any of the required guards.

K. MANUAL LIFTING AND MATERIAL HANDLING

The major causes of injuries include improper lifting and handling of objects, tripping, slipping, or falling. The following procedures must be followed in order to avoid injury.

1. Prior to lifting or moving an object, test the weight of the load to make sure that it can be moved safely. Use material handling devices such as carts or slings or seek assistance.
2. To reduce the incident of slipping, tripping or falling, check the path of travel or destination to make sure it is clear. Clear the path before moving the object and avoid stepping on slippery or uneven surfaces.
3. Use a wide balanced stance to reduce the likelihood of slipping or jerking movements.
4. Keep the lower back in its normal arched position while lifting. Bend at the knees or hips to maintain the normal arched position.
5. Bring the object or load as close to the body as possible. This keeps your back from acting as a fulcrum and reduces the stress on it.
6. Keep the head and shoulders up as the lifting motion begins. This helps maintain the arch in the lower back.
7. Tighten the stomach muscles as the lift begins. This causes the abdominal cavity to become a weight bearing structure, thus unloading the stress on the spine.
8. Lift with the legs and stand up in a smooth, even motion. Avoid lifting with straight legs.
9. Move the feet (pivot) if a change in the direction of travel is necessary. This eliminates the need to twist at the waist, thus significantly reducing the stress on the supporting structures of the back.
10. Communicate if there are two or more individuals involved in the material handling. This reduces the likelihood of an error which could result in sudden or jerking movements.

L. OFFICE SAFETY

1. Chairs, wastebaskets, and similar objects shall not be left in aisles where they constitute a tripping hazard.
2. Electrical cords shall be kept out of aisles and walkways and so restrained so as not to constitute a tripping hazard.
3. Desk drawers, cabinet doors, and file drawers shall not be left open while unattended.
4. Only one file drawer in a cabinet shall be opened at any one time to prevent tipping.
5. Broken glass or other sharp objects shall not be placed in wastebaskets unless protected.
6. Only approved ladders or step stools shall be used to reach material on high shelves or other similar locations. Boxes, crates, or chairs shall not be used for such purposes.
7. Whenever anything is spilled on the floor, it shall be wiped up immediately to remove the slipping hazard.
8. Open all doors slowly in case another employee is also entering the opening at the same time from the opposite direction.
9. Do not use any office equipment that appears to be damaged electrically or has loose wiring, plugs, or missing ground plugs.
10. Never overload circuits.
11. When you use an extension cord, use the proper size extension cord for the situation and make sure it does not get pinched, stepped on, run over, placed under carpet, or draped over doorways.
12. Call for professional service if copier or fax machine paper jams are not easily fixed. Never remove covers and touch the machine; you could get electrocuted.
13. Office heaters pose a serious fire hazard because they generate a lot of heat in a small area. Do not drape coats over the space heater or place the heater near cushions or wastebaskets. Position the heater so that it will not tip over or force heat down through the carpet. Never leave your space heater on while away from your office for long periods of time.

M. OFFICE STATIONS

1. Have your chair adjusted so that your feet are flat on the floor or supported by a footrest.
2. The angle between your thigh and lower leg shall be 90 degrees or slightly more with a space between the back of your knee and the chair.
3. The backrest of your chair shall be adjusted to match the lumbar area (lower back) of your back to provide proper support.
4. The forward tension of the chair shall be adjusted until it gives your back good support.
5. The keyboard should be placed at a slight incline and at about seated elbow height to encourage keying with straight wrists and relaxed shoulders.
6. If your keyboard height is not adjustable you may have to raise your chair which would result in using a footrest.
7. The most convenient solution would be to retrofit your workstation with an adjustable keyboard tray.
8. If using a mouse, you should position it as close to the keyboard as possible and at a matching height.

9. Extensive users of computers may find more comfort in using a padded and slightly curved wrist rest to keep wrists straight and reduce stress on the upper shoulders and upper back.
10. The top of the computer monitor should be placed at seated eye level to improve head and neck posture.
11. A hard copy holder should be used to hold copy close to the monitor to improve neck posture and reduce eye fatigue.
12. To reduce glare on VDT screens, position the screen so that it is perpendicular to overhead lights, not parallel; look for reflections of overhead light, task lights or sun light on the computer screen, and tilt or reposition the screen to eliminate these reflections; or invest in glare covers to fit over the screen.

N. PERSONAL PROTECTIVE EQUIPMENT (PPE)

Whenever practical, personal protective equipment must be used to provide additional security from accidental injuries. Employees are expected to be responsible for and care for protective equipment.

1. **HEAD PROTECTION**
Must be worn **AT ALL TIMES** especially when there is overhead work, electrical contact, and/or the job Supervisor requires it to be worn.
2. **EYE PROTECTION:**
 - a. Approved safety glasses with side-shields must be worn **AT ALL TIMES** especially when grinding, welding, sledging, hammering, chipping, sawing, working with hazardous substances where the SDS dictates their use, and other operations where eye injuries may result.
 - b. A face shield must be worn when performing welding operations.
 - c. Safety glasses must be worn by all shop employees.
3. **RESPIRATORY PROTECTIVE EQUIPMENT** will be provided and used by designated employees when engineering or administrative controls are not effective in controlling hazardous conditions. Refer to the Respiratory Protection Program.
4. **HEARING PROTECTION** will be provided and worn on all jobs where the noise level exceeds OSHA's permissible noise exposure limit. This includes using heavy equipment and jackhammers.
5. **HAND PROTECTION:** Appropriate glove protection is available and must be worn at all times whenever possible unless it interferes with the function of the job.
6. **CLOTHING PROTECTION:** Wear clothing that is suitable for both the weather and your work. Shirts and long pants are required. All employees subject to traffic hazards will wear reflective safety vests.
7. **FOOT PROTECTION:** Wear **LEATHER** work boots that are in good condition for your job **AT ALL TIMES**.
8. **HIGH VISIBILITY GARMENTS:** Employees who are working in near proximity to any moving equipment must **ALWAYS** be wearing a Class II High Visible Garment **AT ALL TIMES**.

O. SCAFFOLDING

1. CAPACITY

- a. Scaffold and scaffold components shall be capable of supporting, without failure, its own weight and at least four times the maximum intended load.
- b. Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.

2. PLATFORM CONSTRUCTION

- a. Each platform on all working levels of scaffolds shall be fully planked and decked between the front uprights and the guardrail supports.
- b. Each scaffold platform or walkway shall be at least 18 inches wide.
- c. The front edge of all platforms shall not be more than 14 inches from the face of the work unless guardrail systems are erected or person fall arrest systems are used.
- d. Wood platforms shall not be covered with opaque finishes.
- e. Scaffold components manufactured by different manufacturers shall not be intermixed unless they fit together without force.

3. CRITERIA

- a. Scaffolds with height to base width ratio of more than 4:1 shall be restrained from tipping by guying, tying, bracing, etc.
- b. Scaffold shall be tied to the building or structure at intervals which do not exceed 30 feet horizontal and 26 feet vertical, and within the 4:1 ratio from the bottom and top of the scaffold.
- c. Scaffold poles, legs, frames, shall bear on base plates, mud sills, or other adequate foundation.
- d. Footings shall be level, sound, rigid, and capable of supporting the loaded scaffold without settling.
- e. Unstable objects shall not be used to support scaffolds.

4. SCAFFOLD ACCESS

- a. Cross braces and scaffold frames must not be used for access unless designed to be used as a ladder.
- b. Portable, hook-on, and attachable ladders must be positioned so as not to tip the scaffold.
- c. When hook-on and attachable ladders are used on a scaffold more than 35 feet high, they must have rest platforms every 35 feet.
- d. Straight ladders can also be used to gain access.
- e. Ramps and walkways 6 feet or more above lower levels shall have a standard guardrail system.
- f. Effective September 2, 1997, access for employees erecting or dismantling scaffolds shall be provided a safe means of access. The employer shall have a competent person determining whether it is feasible or would pose a greater hazard to provide and have employees use a safe means of access.
- g. Hook-on or attachable ladders shall be installed as soon as possible.

5. SCAFFOLD USE

- a. Scaffolds and scaffold components must not be loaded more than their maximum intended loads or rated capacities, whichever is less.
- b. The use of shore or lean-to scaffolds is prohibited.

- c. Scaffolds and components must be inspected for visible defects by a competent person before each work shift, and after any occurrence which could affect a scaffold's structural integrity.
 - d. Scaffolds must not be moved with workers on them, unless they have been designed specifically for such movement.
 - e. Scaffolds must be erected, moved, dismantled, or altered only under the supervision and direction of a competent person.
 - f. You are prohibited from working on scaffolds covered with snow, ice, or other slippery material except to remove the slippery material.
 - g. Work from scaffolds is prohibited during storms or high winds unless your competent person has determined it is safe and you are protected by a personal fall arrest system or windscreen.
 - h. Debris must not be allowed to accumulate on platforms.
 - i. Makeshift devices, such as, but not limited to boxes, barrels, ladders, etc., shall not be used to increase your working level height.
6. **FALL PROTECTION ON SCAFFOLDING**
- a. When you are on a scaffold more than ten feet above a lower level, you must be protected from falling to that lower level by the provisions in the new rule for each type of scaffold used. You would use either a personal fall arrest or guardrail system.
 - b. Guardrails shall be installed on all open sides and ends of platforms. Top rail height shall be between 36 inches and 45 inches. Midrails, halfway between top rail and platform.
 - c. Cross bracing is acceptable in place of a midrail when the crossing point of two braces is between 20 inches and 30 inches above the platform or as a top rail when the crossing point of two braces is between 38 inches and 48 inches above the platform.
7. **FALLING OBJECT PROTECTION**
- a. In addition to wearing hardhats, you must be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toe boards, screens, guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects.
 - b. Where toe boards are not used, the area under scaffold shall be barricaded to prevent employee exposure to overhead hazards.
8. **EMPLOYEE TRAINING**
- a. Employers shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards and to control or minimize those hazards.
 - b. The employer shall have each employee who is involved in erecting, disassembling, moving, repairing, or inspecting a scaffold trained by a competent person.
 - c. Employers shall retrain as needed.

P. SELF PROPELLED WORK PLATFORMS

1. PRESTART CHECKS

- a. Be sure batteries are fully charged.
- b. Make sure battery charger plug is disconnected.
- c. All grease fittings should be fully greased.
- d. Check for any obstacles around the work platform and in the path of travel, such as holes, drop-offs, debris, ditches, soft fill, etc.
- e. Be sure that Free-Wheeling Valve and Emergency Lowering Valves are closed.
- f. Check overhead clearance.

2. SAFE OPERATION

- a. The platform is to be used on hard level surfaces only.
- b. Never overload the maximum intended load.
- c. Do not use within 10 feet of high voltage lines.
- d. Do not use without railings or entrance chains.
- e. Never use if the work platform is not operating properly.
- f. All work must be done on the platform only; never adjust the width, length, or height by any means (ex. ladders).

3. SHUTDOWN

- a. Completely lower the platform.
- b. Remove key from operator's control box.
- c. Check battery water level and place batteries on charge, if needed.

Q. SMOKING

1. Smoking is prohibited when working with or around solvent-based products or flammable compounds. This includes re-fueling of equipment and vehicles.
2. The office and shop area has been designated as a smoke free environment. Smoking is permitted in designated areas only.

R. STAIRWAYS AND LADDERS

1. GENERAL REQUIREMENTS

- a. Stairways or ladders are required in all access areas where there is a break in elevation of 19 or more inches.
- b. All access areas must be kept clear at all times.
- c. Stairway or ladders must be installed prior to work beginning.

2. STAIRWAYS

- a. A minimum landing of 30x22 inches is needed for every 12 feet of vertical rise.
- b. Must be between 30-50 degrees from horizontal position.
- c. No variation of more than 1/4 inch for treads and risers.
- d. Platforms are required on all stairways leading to doorways, with a minimum of 20 inches extending beyond the swing radius of the doorway.
- e. Metal pan stairs must not be used unless temporarily filled in with blocking.
- f. Metal skeleton stairs must not be used unless filled with temporary stairs.
- g. Temporary treads must be actual size.

3. STAIRRAILS AND HANDRAILS

- a. 30 inches in rise or four or more risers require rails.
- b. Stair rails are from 36-37 inches from the tread and must include a mid rail.
- c. Balusters must not be more than 19 inches apart.
- d. All stairway landings must have a 42 inch guard rail system.
- e. The entire system must withstand 200 pounds.
- f. There must be a minimum of 3 inches between the handrail and the wall.

4. LADDERS

- a. If 25 or more employees need access to a ladder then a double cleated or two or more ladders are needed.
- b. Rungs, cleats and steps must be uniformly spaced 10 to 14 inches apart.
- c. Step ladders must have a locking device.
- d. Two or more ladders reaching elevated work must be offset with platforms.
- e. Writing on ladders can only be done on the side rails.
- f. Portable ladders must be able to withstand 4 times the maximum intended load and rails must be 11 1/2 inches apart. Metal ladders must be slip resistive. Never use the top step.
- g. All ladders must extend 3 feet from upper landing surface.
- h. Ladders must be used for their intended use only.
- i. Use only on stable ground. If used on slippery surface, use ladder with slip resistant feet and secure the ladder.
- j. No deflection will be permitted.
- k. Conductive ladders should never be used near power source.
- l. Do not move ladders when in use.
- m. Never place a ladder in a doorway unless it is barricaded.
- n. Ladders need to be inspected prior to each use. Any damaged ladders can be repaired meeting original condition. Unrepairable ladders need to be red tagged or discarded.
- o. Never use cross bracing as a step.

S. TOOLS AND EQUIPMENT

- 1. Do not operate power tools or equipment unless you have been authorized to do so.
- 2. Inspect tools daily to ensure that they are in proper working order. Do not use damaged or defective tools.
- 3. Use tools for their intended purpose and in the manner intended.
- 4. All power tools and electrical devices must be properly grounded.
- 5. Keep guards and protective devices in place at all times. Never use equipment or tools from which guards have been removed.
- 6. Do not use electric power tools and equipment when standing in water.
- 7. Only qualified persons are to repair electric tools or equipment.
- 8. All extension cords shall be the 3-pronged type and made for hard use. Designation types S, ST, STO, SJ, SJO, SJT, and SJTO.

T. WORK AROUND CRANES AND OTHER EQUIPMENT

1. Stay completely clear from overhead loads.
2. The maximum permissible height for frame type boom or winch trucks is 13'0."
3. Stay clear of swinging counterweights. Barricade counterweight swing radius of crane.
4. Do not climb on or off moving equipment.
5. Whenever possible, stay off haul roads, ramps, and other areas where heavy equipment is moving. Follow the flag person's direction and keep a sharp look out for moving equipment.
6. All equipment, cranes and booms are to be kept at least 10 feet from energized power lines.
7. Only a qualified flag person in full view of the operator shall give or relay signals.
8. Tag lines are to be used on all hoisted loads.
9. Be sure back-up alarms are in working order.
10. Backing up blind is prohibited. All backing operations require a flag person. There is no excuse for a backing accident.
11. Seatbelts must be worn when operating equipment.
12. All traffic laws must be obeyed.
13. Do not take chances, to operate safely is more important than doing something quickly.
14. If mechanical repairs are needed, do not operate the equipment until necessary repairs have been made.
15. Never leave unattended equipment idling or running.
16. Prior to departing a piece of equipment, test to make sure parking brakes and emergency brakes are working properly and that they are correctly applied.
17. All engines shall be shut off when refueling.
18. No employee other than the operator shall ride trucks, loaders, shovels, or other heavy equipment unless authorized to do so.

XI. DISCIPLINARY PROCEDURES FOR SAFETY VIOLATIONS

A. POLICY

Your health and welfare are most important. It is the responsibility of the Safety Coordinator and Supervisors to actively enforce the Safety and Health Program. Violations of safety rules are considered unsatisfactory job performance and will be treated accordingly. Any employee who violates the policies and procedures as outlined in the Safety and Health Program or the safety rules and procedures as provided in the labor agreement will be subject to the following disciplinary action.

First Offense: Written Verbal warning; notification to personnel file and instructions on proper procedure that must be followed to avoid another violation.

Second Offense: Written warning; copy to personnel file, and instruction on proper procedure that must be followed to avoid another violation.

Third Offense: Disciplinary action which could include discharge for cause as provided in the current labor agreement.

Based on the severity of the violation, the verbal and/or written warning may be bypassed and the employee may be discharged.

MOTOR VEHICLE SAFETY PROGRAM

MOTOR VEHICLE SAFETY PROGRAM

PURPOSE

Muska Electric's Motor Vehicle Safety Program has been instituted to promote safe driving by our drivers, reduce the frequency and severity of losses associated with our vehicle operations, and promote customer and public relations.

MOTOR VEHICLE REPORTS

The Federal Fair Credit Reporting Act (FCRA) of 1970, and its amendment in 1997, regulates, in part, a third-party's ability to obtain or share "consumer report" information on private individuals. The term "consumer report" is broadly defined, and includes such information as Motor Vehicle Reports (MVRs).

The Act requires that *any party* requesting consumer report information on an individual must first obtain the written permission of that individual. This includes employers, or insurance agents acting on behalf of employers, who want to obtain MVR information for the purposes of hiring, promoting, and/or terminating employees. Failure of a third party to obtain prior written permission of an individual before ordering such information may result in fines, damages and/or criminal prosecution against the third party. Please see Employee/Prospective Employee Permission Letter in **Appendix F**. Sign letter and return to (*company*) office.

DRIVER REQUIREMENTS

1. Only individuals who are licensed and authorized may operate company-provided vehicles or receive an auto allowance. An employee shall not drive a company owned vehicle unless he/she has been authorized to drive a company owned vehicle. Spouses, children, etc. shall not drive company owned vehicles unless they have been authorized to drive company vehicles by the company Safety Coordinator.
2. Drivers must possess a valid driver's license for the state of residency, type of motor vehicle driven, and have an acceptable past driving record before being authorized.
3. State Motor Vehicle Records (MVRs) will be obtained and evaluated annually as part of the selection process of authorizing employees who drive company-provided vehicles or receive an auto allowance. **The "Driver Evaluation Form," will be used as a guideline to evaluate driver records.**
4. The company has the right to terminate driving privileges to any driver based on unacceptable driving records. In some cases, this may be termination of employment.
5. All drivers who operate company-provided vehicles or receive an auto allowance will immediately report the revocation or suspension of a driver's license to their supervisor.

6. All new hires who will be operating a company-provided vehicle or receiving an auto allowance will be required to submit a photocopy of their driver's license and sign a release form so that a State Motor Vehicle Record can be obtained.
7. Employees shall not permit anyone to ride on the running boards, fenders, or any part of the vehicle except on the seats. Passengers shall not stand in moving vehicles.
8. We will permit no employees in possession of a company owned vehicle to have unauthorized riders. An unauthorized rider is any person who is not a Muska Electric employee or not on official business. If you are required to temporarily transport an unauthorized rider, your immediate supervisor must give clearance, or in case of his or her absence, another supervisor.
9. Comply with all traffic laws and practice defensive driving techniques.
10. Avoid vehicle abuse by proper vehicle use, care, and maintenance.
11. Exercise courtesy to other drivers and pedestrians.
12. Never drive under the influence of alcohol or drugs that impair your ability to safely drive a company vehicle. Check with a doctor on possible adverse effects of prescription drugs.
13. Always lock an unattended vehicle.
14. Satisfactorily complete training courses when required.
15. Always use and properly maintain safety belts / shoulder straps and any other safety equipment provided with the vehicle.
16. Ensure that passengers use seatbelts.
17. Report all accidents and moving violations, regardless of severity to your supervisor immediately. See "Vehicle Accident Procedures."
18. Maintain company vehicles in a safe driving condition in accordance with the company's vehicle maintenance program.
19. Permit only authorized personnel to drive assigned company vehicles. An unauthorized driver may hold the assigned driver liable for total accident damage or loss if he/she consented to vehicle use.
20. All company vehicles shall contain an accident reporting kit and disposable camera or smart phone for documenting pertinent accident information.
21. The use of cell phones is prohibited while driving a company vehicle unless it can be used hands free and then only to answer the phone. You must pull off the road to place a call or review text and email.

22. **REMEMBER**, it is a company benefit to be issued a company vehicle and it is intended to be used for business purposes only. The vehicle you are driving or may be driving has a direct impact on the image of Muska Electric. As a driver, you are our primary contact with the public and you will be recognized as a Muska Electric employee. As such, courtesy is a full-time part of your job and remember to treat the other drivers on the road with the same courtesy you would want extended to you.

VEHICLE MAINTENANCE

Employees operating company vehicles are expected to make a safety check on their vehicles before driving them and to maintain the cleanliness of the exterior and interior of the vehicle. The inspection should include, at a minimum, lights, horns, turn signals, brake lights, oil level, coolant level, tire pressure, condition, and adjustment of rearview mirrors. Operators of commercial motor vehicles shall document the safety inspections on the driver's daily inspection report.

VEHICLE ACCIDENT PROCEDURES

All company vehicles shall contain an accident reporting kit in the vehicle for documenting pertinent accident information. At a minimum, the following information should be obtained:

- The name and address of each driver, passenger, and witness.
- The owner's name and address if it is one other than the above.
- The license number of each vehicle involved.
- The name of the insurance company and policy number for each vehicle involved.
- A diagram of the accident.

In addition, the following should be observed:

- Be courteous - do not argue - keep calm.
- Do not talk about the accident, except to a police officer, your supervisor, or the claims adjuster.
- Make no settlements or offers of settlements to anyone at any time.

POST ACCIDENT DRUG & ALCOHOL TESTING

The Company may require an employee to undergo a drug and alcohol test if the employee is involved or has caused a work-related motor vehicle accident while driving a company owned vehicle.

EMPLOYEE RIGHT-TO-KNOW PROGRAM

EMPLOYEE RIGHT-TO-KNOW PROGRAM

The Employee Right-to-Know Act requires employers to evaluate their workplaces for the existence of hazardous substances, harmful physical agents (heat, noise, radiation), and infectious agents (blood, bodily fluids, hospitals and clinics), and to provide training and information to those employees who are routinely exposed to those substances and agents.

In order to ensure that the information necessary for safe use, handling and storage of hazardous substances and agents is provided and readily accessible to all employees, the following written program has been established for Muska Electric.

A. HAZARDOUS SUBSTANCES

1. Hazardous substances in the workplace will be identified and employees routinely exposed to these hazards will be provided with training.
2. Each individual hazardous substance will be identified with an attached label and have a corresponding Safety Data Sheets readily accessible to all employees.

B. HAZARDOUS PHYSICAL AGENTS

1. HEAT

- a. Heat-related health problems result from a combination of internal body heat production from doing work and external heat exposures from work environment. Heat disorders include heat stroke, heat exhaustion, heat cramps, fainting, and heat rash. Employee education is vital so that employees:
 - 1) Replace fluids and salt lost through sweating
 - 2) Recognize dehydration, exhaustion, fainting, heat cramps, salt deficiency, heat exhaustion, and heat stroke.
 - 3) Know the means of protecting themselves.

2. NOISE

- a. Protection against the effects of noise exposure shall be provided when the sound levels exceed the OSHA permissible exposure levels. These standards require Muska Electric to protect all workers from occupational noise exposure that exceeds an 8-hour time weighted average (TWA) of 85 decibels (dba). When employees are subjected to sound exceeding these limits, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the limits, personal protective equipment shall be provided and worn to reduce sound levels to within the OSHA limits. These PPE items will be distributed through the Supervisors.

3. NON-IONIZING RADIATION

- a. Manufacturers of equipment which generate non-ionizing radiation must provide Muska Electric with information to comply with training requirements. The information will be provided at the time of purchase and will be current, accurate, and complete. Employees who will be exposed to non-ionizing radiation at a level which may be expected to approximate or exceed the permissible exposure limit will be provided with written information and training.

C. INFECTIOUS AGENTS

1. Muska Electric does not employ medics, first-aid responders, or anyone who is routinely exposed to infectious agents.
2. For any employee who wishes to volunteer their first-aid or CPR knowledge, rubber gloves and one-way CPR masks are available in all first-aid kits.
3. Employees shall be aware that various infectious agents can be transferred from an injured employee to the employee assisting or vice versa.

D. HAZARDOUS SUBSTANCES AND AGENTS INVENTORY

1. Muska Electric maintains an inventory of all known hazardous substances and agents in use on the jobsite. A chemical inventory list is available from the office.
2. Hazardous substances and agents brought onto the jobsite by Muska Electric will be included on the hazardous chemical inventory list in the SDS Log Book or in a separate SDS log for specific job information.

E. CONTAINER LABELING

1. All hazardous substances and agents on site will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. Any containers not properly labeled should be given to your Supervisor for labeling or proper disposal.
2. Employees may dispense hazardous substances and agents from original containers only in small quantities intended for immediate use. Any substance or agent left after work is completed must be returned to the original container or Supervisors for proper handling.
3. No unmarked containers of any size are to be left in the work area unattended.
4. Muska Electric will rely on manufacturer applied labels, and will ensure that these labels are maintained. Containers that are not labeled, or from which the manufacturer's label has been removed, will be relabeled.
5. Muska Electric will ensure that each container is labeled to identify any hazardous chemical inside and appropriate hazard warnings.

F. SAFETY DATA SHEETS (SDS)

1. Safety Data Sheets (SDS's) will be collected from the manufacturers or suppliers of all hazardous substances and agents and reviewed by the Safety Coordinator. If the manufacturer or supplier fails to send an SDS, one will be requested.
2. Employees working with hazardous substances and agents may request a copy of the SDS. Requests for SDS's should be made to the Safety Coordinator.
3. SDS's will be available on the job to provide immediate reference to hazardous substance and agent safety information.

G. EMPLOYEE TRAINING

The Safety Coordinator is responsible for the employee training program. Prior to starting work, employees will be trained to work safely with hazardous substances and harmful physical agents.

Employee training will include:

1. Reviewing the requirements of the OSHA Hazard Communication Standard and Employee Right-to-Know Act.
2. Reviewing the location and availability of the written program, list of hazardous substances and agents, and Safety Data Sheets.
3. Reviewing the primary routes of entry; known symptoms of the effects (physical and health); any potential for flammability, explosion or reactivity of the substance; appropriate emergency treatment; known proper conditions for use of and exposure to the substance; procedures for cleanup of leaks and spills; and manufacturer information (i.e. name, phone number and address).
4. Reading labels and SDS's to obtain appropriate hazard information.
5. Protective measures to be taken to eliminate or reduce exposure including: safe work practices and personal protective equipment.

Whenever a new hazardous chemical or agent is purchased, it will be the responsibility of the Safety Coordinator to see that the SDS or other information accompanies the new product. Prior to a new chemical or agent being introduced, each affected employee will be given information as outlined above.

H. PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. Required PPE is available from the Supervisors and/or Safety Coordinator.

I. EMERGENCY RESPONSE

1. Any incident of over-exposure or spill of a hazardous substance or agent must be reported to the Safety Coordinator at once.
2. The Safety Coordinator will be responsible for ensuring that proper emergency response actions are taken in leak/spill situations.

J. HAZARDOUS NON-ROUTINE TASKS

Periodically employees are required to perform hazardous non-routine tasks.

1. Prior to starting work on such projects, the Safety Coordinator will inform affected employees of any special tasks that may arise which would involve possible exposure to hazardous substances and agents.
2. Review of safe work procedures and use of required PPE will be conducted prior to the start of such tasks. Where necessary, areas will be posted to indicate the nature of the hazard involved.

K. INFORMING OTHER EMPLOYERS/CONTRACTORS

1. Other on-site employers are required to adhere to the provisions of the Hazard Communication Standard.
2. Information on hazardous substances and agents known to be present will be exchanged with other employers. Employers will be responsible for providing necessary information to their employees.
3. Muska Electric's written Employee Right-to-Know program will be readily accessible to other on-site employers.

ENERGIZED ELECTRICAL WORK PROGRAM

ENERGIZED ELECTRIC WORK PROGRAM

PURPOSE

Safety-related work practices shall be employed to prevent electrical shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized. The specific safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards.

Live parts to which an employee may be exposed shall be de-energized before the employee works on or near them, unless the Company can demonstrate that de-energizing introduces additional or increased hazards or is unfeasible due to equipment design or operational limitations. Live parts that operate at less than 50 volts to ground need not be de-energized if there will be no increased exposure to electrical burns or to explosion due to electrical arcs. Examples of increased or additional hazards include:

- Interruption of life support equipment.
- Deactivation of emergency alarm systems.
- Shutdown of hazardous ventilation equipment.
- Removal of illumination for an area.

If the exposed live parts are not de-energized, other safety-related work practices shall be used to protect employees who may be exposed to the electrical hazards involved. Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object. The 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 exposed electrical conductors or circuit parts.

Only qualified workers shall work on or near exposed electrical equipment, circuits, and/or lines.

QUALIFIED PERSON

The definition of a qualified person is an employee who can safely work on an energized circuit and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

UNQUALIFIED PERSON

The definition of an unqualified person is an employee who has little or no background or training in exposed electrical areas/situations. This may include new functions that a previously qualified electrician may be unfamiliar with.

PROCEDURES

DE-ENERGIZING EQUIPMENT

- Safe procedures for de-energizing circuits and equipment shall be determined before circuits and equipment are d-energized by the qualified person.
- The circuits and equipment to be worked on shall be disconnected from all electrical energy sources. Control circuit devices such as pushbuttons, selector switches, and interlocks may not be used as the sole means for de-energizing circuits or equipment. Interlocks for electrical equipment may not be used as a substitute for lockout and tag out procedures.
- Stored electrical energy which might endanger personnel shall be released. Capacitors shall be discharged and high capacitance elements shall be short circuited and grounded if the stored electrical energy might endanger personnel.
- Stored non-electrical energy and devices that could reenergize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.
- A lock and tag shall be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed. The lock shall be attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools. Lockout/tag out procedures shall be followed from the lockout/tagout program.

ENERGIZED ELECTRICAL WORK

- Only after determining and demonstrating that de-energizing an electrical circuit or piece of equipment introduces additional or increased hazards or the circuit or equipment is unfeasible due to equipment design or operational limitations shall be worked energized.
- Employees working on live parts that operate at more than 50 volts to ground shall follow specific safety-related work practices to protect themselves from electrical hazards.
- Only qualified persons may work on electric circuits or equipment that have not been de-energized. Qualified persons shall be capable of working safely on energized circuits using:
 - ✓ Special precautionary techniques
 - ✓ Designated personal protective equipment
 - ✓ Insulating and shielding materials
 - ✓ Insulated tools
- Personal protective equipment will be available for all electricians working on energized equipment and circuits.
- Any jobsite superintendent/foreman needing high voltage tool kits shall contact the Safety Coordinator.

- Glasses, tools, and gloves shall be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electrical conductors or circuit parts. High voltage tool kits are available if needed when working hot and may contain the following items:
 - ✓ Safety glasses
 - ✓ Face shields
 - ✓ Hooded flame retardant coat
 - ✓ 500 volt, size 00 gloves with leather protector and bag (retest every six months)
 - ✓ Insulated tool kit containing the following items:
 - 9 inch side cutting pliers
 - 6 inch cabinet tip screwdriver
 - 4 inch heavy duty screwdriver
 - #2 Phillips screwdriver
 - Wire stripper-cutter
 - Utility knife
 - Slotted holding screwdriver
 - Phillips holding screwdriver
 - Tool pouch
 - Insulated tape measure or a non-conductive ruler
 - Mini voltage tester
 - 7.5 kV PVC insulating roll
- Employees shall use electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work performed. Protective equipment shall be maintained in a safe, reliable condition and shall be periodically inspected or tested.
- Any person needing a higher voltage insulating glove shall contact the Company Safety Coordinator.
- When working near exposed energized conductors or circuit parts, employees shall use insulating equipment and materials to prevent electric shock, arc, or flash.
- Employees shall insulate themselves from ground to prevent electric shock. Employees shall use insulating tools or handling equipment if they may make contact with such conductors or parts.
- Visually inspect conductors, bushings, and other electrical items for defects to prevent electrical shock.
- Where the work requires exposure to, or handling of, energized conductors or switchgear of 440 volts or more between phases, two or more qualified employees shall work together.
- Portable ladders used shall have non-conductive side rails.
- Conductive articles of jewelry and clothing (such as watchbands, bracelets, rings, key chains, necklaces, aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, those articles may be worn if they are rendered non-conductive by covering, wrapping, or other insulating means.
- Where live parts present an electrical contact hazard, employees may not perform housekeeping duties at such close distances to the parts that there is a possibility of contact, unless adequate safeguards are provided.

- Where lack of illumination or an obstruction precludes observation of the work to be performed, employees may not perform tasks near or enter spaces exposed to energized parts. Employees may not reach blindly into areas which may contain energized parts.

OVERHEAD LINES

- If work is to be performed near overhead lines, the lines shall be deenergized and grounded, or other protective measures shall be provided before work is started.
- If lines are to be deenergized, arrangements shall be made with the person or organization that operates or controls the electrical circuits involved to deenergize and ground them.
- Any protective measures provided such as guarding, isolating, or insulating shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.
- Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 feet is maintained. If the voltage is higher than 50 kV, the clearance shall be increased 4 inches for every 10 kV over that voltage. However, under any of the following conditions the clearance may be reduced:
 - ✓ If the vehicle is in transit with its structure lowered, the clearance may be reduced to 4 feet. If the voltage is higher than 50 kV, the clearance shall be increased 4 inches for every 10 kV over that voltage.
 - ✓ If insulation barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designed working dimensions of the insulating barrier.
 - ✓ If the equipment is an aerial lift insulated for the voltage involved, and the work is performed by a qualified person, the clearance may be reduced to the distance given in the table below.
- When an unqualified person is working in a position near overhead lines, location shall be such that the person is not closer than 10 feet. For voltages over 50 kV, the unqualified person should be 10 feet plus 4 inches for every 10 kV over 50 kV.
- When a qualified person is working in the vicinity of overhead power lines, the person may not approach or take any conductive object without an approved insulating handle closer to the exposed energized parts shown on the table below.

APPROACH DISTANCES FOR QUALIFIED EMPLOYEES ALTERNATING CURRENT

<u>Voltage Range (phase to phase)</u>	<u>Minimum Approach Distance</u>
300V and less	Avoid contact
Over 300V, not over 750V	1 foot - 0 inches
Over 750V, not over 2kV	1 foot - 6 inches
Over 2kV, not over 15kV	2 feet - 0 inches
Over 15kV, not over 37kV	3 feet -0 inches
Over 37kV, not over 87.5kV	3 feet -6 inches
Over 87.5kV, not over 121kV	4 feet -0 inches
Over 121kV, not over 140kV	4 feet -6 inches

TRAINING

- Employees shall be trained and familiar with the safety-related work practices discussed throughout this written program OSHA and NFPA regulations.
- Qualified persons shall, at a minimum, be trained and familiar with the following:
 - ✓ The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
 - ✓ The skills and techniques necessary to distinguish the nominal voltage of exposed live parts.
 - ✓ The clearance distances specified in the corresponding voltages to which the qualified person will be exposed.

LOCKOUT/TAGOUT PROGRAM

LOCKOUT/TAGOUT PROGRAM

PURPOSE

This procedure establishes the minimum requirements for the lockout/tagout of energy isolating devices. It shall be used to ensure that the equipment or machinery is isolated from all potentially hazardous energy and locked out and tagged out before employees perform servicing or maintenance activities where the unexpected energization, start-up or release of stored energy could cause injury.

RESPONSIBILITY

All maintenance personnel, site Supervisors, lead people, operators and field personnel shall be instructed in the safety significance of the lockout/tagout procedure. Each new or transferred affected employee shall be instructed in the purpose and use of the lockout/tagout procedure. All other employees whose work operations are or may be in an area where energy control procedures may be utilized shall be instructed about lockout/tagout procedures.

PREPARATION FOR LOCKOUT/TAGOUT

Fill out a LO/TO permit. Make a survey to locate and identify all isolating devices to be certain which switches, valves or other energy isolating devices apply to the equipment to be locked or tagged out. More than one energy source may be involved. Review lockout/tagout surveys for specific procedures.

SEQUENCE OF LOCKOUT/TAGOUT SYSTEM PROCEDURE

1. Notify all affected employees that a lockout/tagout system is going to be utilized and the reason therefore. The authorized employee shall know the type and magnitude of energy that the equipment or machine utilizes and shall understand the hazards there of.
2. If the equipment or machine is operating, shut it down by the normal disconnect means.
3. Operate the switches, so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
4. Lockout/tagout the energy isolating devices with assigned individual lock(s) and/or tag(s).
5. After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating control(s) to "neutral or "off" position after the test. Verify the power has been disconnected with a functioning, properly rated voltage tester under the provisions of NFPA 70E wearing appropriate PPE. Verify the tester is in working order by testing a known live circuit. Test phase to ground, then test each phases to phase. Again verify tester is working by checking a live circuit if available. 6. The equipment is now locked out and/or tagged out.
7. The LOTO shall be checked and verified and documented at the start of each shift by each individual with a lock in place.

RESTORING MACHINES OR EQUIPMENT TO NORMAL PRODUCTION OPERATIONS

1. After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.
2. After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove lockout or tagout devices. Operate the energy isolating devices to restore energy to the machine or equipment.

PERIODIC INSPECTIONS

A periodic inspection will be performed on an annual basis to assure that the energy control procedures (locks and tags) continue to be implemented properly and that employees are familiar with their responsibilities under those procedures.

The Production Manager will certify that the periodic inspections have been performed. The certification will identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

PROCEDURE INVOLVING MORE THAN ONE PERSON

In the proceeding steps, if more than one individual is required to lockout/tagout equipment, each shall place their own personal lockout/tagout device on the energy isolating switch. When an energy isolating device cannot accept multiple locks or tags, a multiple lockout/tagout hasp may be used. If hasp cannot be used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use his own lock to secure the box or cabinet. as each person no longer needs to maintain his lockout protection, that person will remove his lock from the box or cabinet.

FIELD OPERATIONS

When lockout/tagout procedures are needed in the field, employees shall follow the same procedures identified above. Individually keyed locks, hasps, chains, tags, and written programs are available in the lockout/tagout toolboxes found in the shop. These locks are for field use only. These locks shall be returned to the lockout/tagout box after use is no longer needed.

BASIC RULES FOR USING LOCKOUT/TAGOUT SYSTEM PROCEDURE

All equipment shall be locked out and tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve or other energy isolating device where it is locked and tagged out.

RESPIRATORY PROTECTION PROGRAM

RESPIRATORY PROTECTION PROGRAM

PURPOSE

In the control of those occupational diseases caused by breathing air contaminated with gases or aerosols, the primary objective is to prevent harmful exposures. This is accomplished as far as feasible by accepted engineering control measures (i.e. general/local ventilation, enclosure, etc.). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators may be required.

The practices and procedures described here constitute the program under which respirators are effectively utilized at Muska Electric.

RESPONSIBILITY

The Safety Coordinator is responsible for the respirator protection program:

- Determining the need for respirators and selecting the appropriate types.
- Periodically monitoring work conditions to ensure a healthful environment.
- Medical evaluations of employees who are required to use respirators and maintain records of the evaluation.
- Establishing fit test procedures.
- Implementing training and instruction programs.
- Ensuring that the operation standards include the requirement for respirator use where necessary.
- Administrating and evaluating the respirator program.

Supervisors are responsible for:

- Ensuring that respirators are available as needed.
- Ensuring that employees wear respirators as required.
- Inspection of respirators on a regular basis.

Employees are responsible for:

- Using the respirator supplied to him/her in accordance with instructions and training.
- Performing a user seal check each time a respirator is donned.
- Inspecting and storing his/her respirator.
- Reporting a respirator malfunction to his/her supervisor.

RESPIRATOR SELECTION

The Safety Coordinator selects respirators. The selection is based on the physical, chemical and physiological properties of the air contaminant and on the concentration likely to be encountered. The quality of fit and the nature of the work being done also affects the choice of respirators. The capability of the respirators chosen is determined from appropriate governmental approvals, manufacturer's tests, and experience with the respirators.

Only respirators approved by Muska Electric are to be used by employees.

DISTRIBUTION

Disposable respirators are issued to individuals whenever practical. Each respirator which is individually assigned is identified in a way that does not interfere with its performance. The Safety Coordinator will perform a fit test of the respirator and document this on the Issuance/Fit Documentation form (**Appendix E**).

INSPECTION, MAINTENANCE, CLEANING AND STORAGE

- Inspection:
All respirators are inspected routinely by the user before and after each use to check condition of face piece and headbands. The Company Safety Coordinator will periodically spot check assigned respirators. The Random Compliance/Maintenance form (**Appendix E**) will be used to document the inspection.
- Maintenance:
Disposable respirators which do not pass inspection are replaced immediately. No attempt will be made to replace components or make adjustments, modifications or repairs beyond the manufacturer's recommendations. Disposable respirators that no longer function properly shall be discarded and replaced with new.
- Cleaning and storage:
The user of individually assigned disposable respirators will perform only minor cleaning. Any disposable respirator with any significant amount of cleaning needed shall be discarded and replaced with new. After inspection and minor cleaning, disposable respirators are stored to protect against dust, sunlight, heat, cold, excessive moisture, or damaging chemicals.

TRAINING

Every employee who is required to wear a respirator must be trained in the proper use of the respirator. This training includes:

- Description of the respirator.
- Intended use and limitations of the respirator.
- Proper wearing, adjustments and fit.
- Cleaning and storage methods.
- Inspection and maintenance procedures.

This training is repeated annually to ensure that employees remain familiar with the proper use of respiratory protection. The Respiratory Training Meeting form (**Appendix E**) will be used to document the training. The training program is evaluated at least annually by the Safety Coordinator to determine its continued effectiveness.

RECORDS

The Safety Coordinator maintains the following records.

- The number and types of respirators in use.
- A record of employee training programs.
- Medical certification that the employee is capable of wearing a respirator.

MEDICAL EVALUATIONS

Initially, and periodically thereafter, an individual determination will be made for each employee who may be required to wear respiratory protection as to whether or not that employee can wear the required respirator without physical or psychological risk. In all cases, a physician or designee, with knowledge of pulmonary disease and respiratory protection practices, should determine what medical factors are pertinent, what tests will be performed, and ultimately whether or not an employee may wear a respiratory protection device. Copies of the medical evaluation on each potential wearer of respiratory equipment will be filed or the Respirator Release form (**Appendix E**) can be used in place of the medical evaluation forms.

RESPIRATORY PROTECTION FOR EMPLOYEES WHEN NOT REQUIRED

Appendix D to 1910.134
Information for Employees Using Respirators
When Not Required Under the Standard

Non-Mandatory

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.**

CONFINED SPACE PROGRAM

PURPOSE

This confined space entry procedure is designed to ensure a safe working environment when work is performed in a confined space in accordance with 29 CFR 1910.146 and 29 CFR 1926.21 (b)(6). This procedure is to be followed whenever employees of Muska Electric are required to enter a confined space as defined within this procedure. More stringent requirements may augment this policy for any situation. If a special need or problem is encountered, consult with the Safety Coordinator before proceeding.

RESPONSIBILITY

Ronald Von Bank is solely responsible for all facets of this program and has the full authority to make necessary decisions to ensure the success of this program.

Ronald Von Bank will develop detailed written instructions where required by this program and will amend those instructions when necessary.

DEFINITIONS

A **confined space** involves the following:

- Adequate size and configuration for employee entry and perform assigned work
- Limited means of entry or outlet
- Not designed for continuous employee occupancy

A **permit-required confined space** is a confined space that needs a permit to be entered. A permit is required if the confined space includes, or potentially includes the following:

- Hazards related to atmospheric conditions, such as:
 - Oxygen deficiency
 - Flammable conditions
 - Toxic conditions
- Contains a material like bulk grains, soil, liquid, or dry cement that has the potential for engulfing an entrant.
- 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 makes escape or rescue difficult.
- Other recognized serious hazard, such as:
 - Inadequate ventilation
 - Burns from high temperatures
 - Internal electrical or rotating equipment, Lockout/Tagout
 - Emergencies or hazards outside the confined space
 - Physical injury from slips and falls, or high noise levels inside the confined space
 - Energy hazards from steam or electrical equipment inside the confined space

CONFINED SPACE ENTRY PERMIT

- A written Confined Space Entry Permit will be required whenever it is necessary for Muska Electric employees to enter confined spaces.
- The permit must be displayed at the worksite in a visible manner for the duration of the work. The maximum duration of a permit is one shift. If there is a change of shift, or a change of workers involved in entry, a new permit must be filled out.
- Upon completion of the work or shift, the permit must be filed for 30 days. Where atmosphere test shows any dangerous air contamination, oxygen deficiency, or oxygen enrichment, the permit must be kept on file for one year.

CONFINED SPACE NOTICE

If the space is found to be a permit-required confined space, it shall be labeled by posting a sign reading:

“DANGER -- PERMIT REQUIRED CONFINED SPACE. DO NOT ENTER.”

This sign will be permanently posted at the potential entry or access point to the space. If the space will not be entered, effective measures should be taken to see that entrances are adequately marked and blocked.

A ***non-permit confined space*** means a confined space that does not contain, or with respect to atmospheric hazards, have the potential to contain any hazard capable of death or serious physical harm.

INSPECTION AND EVALUATION

All work areas for Muska Electric will be inspected and evaluated to determine if they require a confined space entry permit. The inspection is the responsibility of the Safety Coordinator. All hazards will be listed and evaluated. Conditions that prohibit entry to a confined space will be evaluated and listed on the entry permit.

GENERAL REQUIREMENTS

Before an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. Any employee who enters the space, or that employee's authorized representative, shall be provided an opportunity to observe the pre-entry testing required

- A written record of the testing results shall be made and kept at the worksite for the duration of the work. Affected Muska Electric workers or their representatives shall be afforded an opportunity to review and record the testing results.
- Calibration of testing and monitoring equipment: Air testing and monitoring equipment shall be maintained and calibrated according to manufacturer's instructions. This equipment shall be periodically calibrated, at least monthly, with an appropriate test gas to assure proper operation. Records of such calibration and field test shall be maintained for a minimum of one year. Calibration and field test information, including type of test required, date tests were due, and date tests were completed, shall be affixed to the instrument or be readily available at the time of use.

Continuous air ventilation shall be used, as follows:

- An employee shall not enter the space until the ventilation has eliminated the hazard.
- The ventilation shall be directed as to ventilate the immediate areas when an employee is working and shall continue until the employee leaves that area.
- The air supply for the forced air ventilation shall come from a clean source and may not increase the hazards in the space.

PRE ENTRY REQUIREMENTS

The applicable provisions of this part shall be implemented before entry into a confined space is permitted.

- Disconnection of lines - Lines that may convey flammable, explosive, toxic, or otherwise injurious or incapacitating substances into the space shall be disconnected, blinded, locked out, or blocked off by other positive means to prevent the development of a hazardous atmosphere. Lockout/tagout procedures shall be followed.
- Injurious Corrosive Substances - Workers in confined spaces that last contained injurious or corrosive substances to their eyes or body shall be provided with appropriate personal protective equipment.
- Ventilation - Prior to and during entry, proper ventilation shall be provided to augment existing ventilation. Ventilators with a positive pressure capacity of 200 cubic feet per minute per occupant will be used. In spaces that are larger than 2,000 cubic feet, a ventilation capable of six air changes of the confined space volume per hour will be used.
- Ignition Sources - No ignition sources shall be introduced into the confined space without first ensuring that dangerous air contamination due to flammable or explosive substances do not exist.
- Interconnected Spaces - In instances where interconnected spaces are blocked off as a unit, each space will be tested for air quality. The most hazardous condition found shall govern the procedures to be followed for entry.
- Oxygen-Consuming Equipment - Whenever oxygen-consuming equipment is to be used, means to ensure adequate combination air and exhaust gas venting.
- Oxygen Enrichment Condition or Use of Oxygen Enrichment Equipment - Whenever oxygen enrichment is possible due to conditions within the space, measures shall be taken to ensure that the oxygen level does not exceed 23%. If levels become greater than 23%, no hot work is to be permitted, until the oxygen level is reduced below 23%.
- Smoking - Smoking is not to be allowed in a confined space or within 20 feet of a confined space.

PERMITS

All entry to a permit-space is restricted to those with permits. Permits must be available to all employees requiring entry to a confined space that requires a permit (permit-space). The permit should extend only for the duration of the task. The Safety Coordinator must retain all permits for a year to facilitate review of the Confined Space Program.

Permits must include the following:

- Identification of the space
- Purpose of entry
- Date and duration of permit
- List of authorized entrants with method to determine which authorized entrants are inside the permit space (Sign-in sheet)
- Names of current attendants and entry supervisor
- List of hazards in the permit-space
- List of measures to isolate the permit-space and eliminate or control hazards before entry
- The acceptable entry conditions
- Results of initial and periodic tests initialed by the persons performing test and the time tests were performed
- Rescue and emergency services including equipment and phone numbers
- Communication procedures for attendants and entrants to maintain contact during entry
- Required equipment (respirators, communications devices, alarm, and rescue equipment)
- Any other information that is necessary
- Any additional permits issued to authorized work in the permit space (Such as for hot work under the Fire Safety Program)

The Permit Program must be reviewed at least annually.

CONFINED SPACE PROGRAM LISTS

The following lists are the types of confined spaces entered by Muska Electric employees:

A. ALL SITES :	Any enclosed area with poor access or ventilation
	Bins, Boilers
	Cyclones
	Ditches, Ducts
	Electrical vaults
	Heaters, Heat Treating Furnaces, Hoppers
	Incinerators
	Manholes
	Silos, Stack
	Tanks, Towers, Trenches, Tubs
	Vats, Vessels
	Well or Valve pits
	Thermo Oxidizers

ENTRY SUPERVISOR

Entry supervisors must know hazards of confined spaces and must verify that all tests have been conducted and all procedures and equipment is in place. They must also verify that rescue services are available and that the means for summoning them are operable. Entry supervisors may terminate entry and cancel permits. They must remove unauthorized individuals who enter a confined space. They also must determine that conditions are acceptable as specified in the permit.

All Entry Supervisors must know:

- The hazards they may face during entry including mode, signs symptoms of exposure, and understand the consequences of exposure to hazards.
- Verifies all test specified by the permit have been conducted and all procedures and equipment are in place before endorsing the permit and allowing work to begin.
- Terminates the entry and cancels the permit when necessary
- Verifies rescue services are available and can be summoned if needed
- Remove unauthorized individuals who enter or attempt to enter the permit space during entry operations.
- Determines that entry operations remain consistent with terms of the entry permit whenever responsibility is transferred or at intervals dictated by the hazards or operations performed within the space.

PERSONNEL AUTHORIZED TO ENTER CONFINED SPACES

All personnel issued permits to enter confined spaces must know:

- The hazards they may face during entry including mode, signs symptoms of exposure, and understand the consequences of exposure to hazards.
- Proper use of any needed equipment and complying with the provisions on the entry form and or permit
- Communicate with attendant, as necessary if the entry is a hazardous atmosphere confined space entry.
- Alert attendant when a warning symptom or other hazardous condition exists or a prohibited condition is detected.
- Exit as quickly as possible whenever ordered or alerted by an evacuation alarm, warning sign, a symptom of exposure is detected or prohibited condition

ATTENDANTS

Attendants are individuals stationed outside a permit space that monitors the authorized entrants and performs all duties assigned in Muska Electric's confined space program.

Attendants must perform the following duties:

- Attendants must know the hazards of a confined space including information on the mode, signs, symptoms, and consequences of exposure.
- Know the possible behavioral effects of exposure

% of Oxygen in Air	Effects of Oxygen Deficiency
16 to 12%	Deep breathing, accelerated heartbeat, impaired attention, impaired thinking, impaired coordination
14 to 10%	Very faulty judgment, very poor coordination, rapid fatigue from exertion the may cause permanent heart damage, intermittent breathing
10% or below	Nausea, vomiting, inability to perform vigorous movement or loss of all movement, unconsciousness follow by death
Less than 6%	Spasmodic breathing, convulsive movements, death in minutes

Check permits of authorized entrants

- Prevent entry by those without a permit and notify the authorized entrants and entry supervisor if unauthorized persons have entered the permit space.
- Maintain a continuous count of those in a confined space
- Monitor activity in the confined space and alert entrants of need to evacuate
- Summon rescue and emergency services when entrants may need assistance to escape a permit space hazard.
- Perform non-entry rescues as specified by the rescue procedure
- Perform no duties that may interfere with attendant's primary duty to monitor and protect authorized entrants.
- Remain outside the confined space until relieved by another attendant

AUTHORIZED ON-SITE RESCUE AND EMERGENCY SERVICES

The following requirements apply to Muska Electric's employees who enter permit spaces to perform rescue services:

- Each member of the rescue team is provided with, and trained to use personal protective equipment and rescue equipment necessary for making rescues
- Each member shall receive training on assigned rescue duties and for authorized entrance.

Retrieval systems shall be used in ***Non-Entry Rescues*** whenever an authorized entrant enters a permit space, unless the retrieval equipment would not contribute to the rescue of the entrant.

- Each authorized entrant shall use a full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level or above the head. Wristlets may be used if the full body harness is infeasible or creates a greater hazard.
- The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space so rescuer can be made aware that rescue is necessary.
- Mechanical devices shall be used for retrieval from vertical type permit spaces more than five (5) feet deep.
- First aid and any necessary rescue equipment shall be readily available at the site.

Safety Data Sheets or other similar written information is required to be made available to any medical facility treating an entrant exposed to a hazardous substance.

SAFETY EQUIPMENT AND CLOTHING

The entry permit will include a list of necessary protective equipment to be used in the confined space as determined by the qualified person. The employer will be responsible for the proper use of the safety equipment, and the inspection and maintenance procedures performed on the safety equipment. The type of protective equipment required will be determined by the qualified person.

TRAINING

Muska Electric shall provide training to all employees involved in confined space entry so that they acquire the understanding, knowledge, and skills necessary to perform their job safely.

Muska Electric shall certify that the training has been accomplished. This certification shall contain each employee's name and job title, dates of training, the instructor and their qualifications to train. This certification shall be available for inspection by employees and their authorized representatives.

Training shall be provided to each employee:

- Before the employee's first duty.
- Before any changes in assigned duty.
- Any changes in operations that present a hazard which an employee has not been trained.
- Whenever Muska Electric has reason to believe that there are deviations from entry procedures that could pose hazardous to employees.

APPENDICES

APPENDIX A

ACCIDENT INVESTIGATION REPORT

Employee Identification

Employee Name _____ Accident Date _____

Job Title _____ Date Reported _____
Department _____ Accident Occurred On Premises
Address _____ Off premises

City _____ State _____ Zip _____ Case # _____
Date of Birth _____ Employee Death Yes No
Date of Hire _____ Date of Death _____
Male Female Time Employee began work _____ AM / PM
Time of Event _____ AM / PM
 Check if time cannot be determined.

Medical Treatment

Type of treatment: First Aid Medical
If medical, physician/clinic/hospital name and address:

Was employee treated in an emergency room Yes No
Was employee hospitalized overnight as an in-patient Yes No
Does employee have restrictions Yes No Unknown
(attach restrictions)

Injury

Type of accident (**Describe what happened**) _____

Source (**What caused the injury**) _____

Nature of injury (**Describe the injury**) _____

Part of body affected _____

What was the employee doing just before the incident occurred _____

Employee's Description of Accident: (*In your own words, describe what happened; where; when; why; how; and sign statement.*) _____

Employee's Signature _____ **Date** _____

Supervisor's Description of Accident: (describe what happened; who was involved; where; when; why; how; size; weight; how many parts involved; who witnessed. Base your description on the statement of the employee involved and witnesses.)

Cause: (identify unsafe acts or conditions; contributing factors and any base causes, i.e. ineffective safety program, job instruction, etc.).

Property Damage

Object damaged _____
Nature of damage _____
Source: (Object causing damage) _____
Estimated cost of repair _____

Evaluation

Severity potential Major Serious Minor
Reoccurrence potential Frequent Occasional Rare
Have similar accidents occurred before? Yes No Unknown
Reasons for reoccurrence _____

Corrective Action and Follow-Up

What has been done to prevent this from happening again _____

Follow-Up

Immediate 7 days 30 Days 60 Days
Action(s) taken and dates _____

Supervisor's Signature _____ Date _____

Witness Name and Phone Number _____ Date _____

Reviewed by Safety Coordinator _____ Date _____

INSTRUCTIONS FOR COMPLETING ACCIDENT INVESTIGATION REPORT

Type of accident: Describe the event, activity, or peril that produced injury or damage (i.e. slip, fall, struck by, struck against, caught in or between, contact with, over-exertion, over-exposure, manual handling ingestion, absorption, vehicle).

Source: The object or substance inflicting injury.

Nature of Injury: Describe the injury (i.e. cut, bruise, burn, puncture, abrasion, sprain, strain, irritation, swelling fracture, amputation, dermatitis, occupational disease).

Part of Body: Part of body injured or involved (i.e. thumb, arm, shoulder).

Employee's description of accident: In the employee's own words and handwriting, state in full detail what occurred. Employee must sign at the end of the statement.

Supervisor's description of accident: In as much detail as necessary, describe what occurred. Include sketches or photos if necessary to explain what happened. **This section is for facts, not opinions!** Be sure to take statements from witnesses, if any. Use additional paper if more space is needed.

Cause:

- **Unsafe act** - the personal action that directly permitted or caused the accident.
- **Unsafe conditions** - the hazardous physical condition(s) or circumstance(s) that directly caused or permitted accidents to occur.
- **Contributing factors** - Lack of skill or knowledge; inadequate rules or work standards; improper motivation; inadequate purchasing standards; poor design; inadequate maintenance; abnormal abuse; personal, emotional, or physical elements.
- **Base cause-management** - lack of planning, leading, organizing or controlling; inadequate safety program or policy; ineffective loss control techniques of inspection, job instruction, accident investigation, rule development, and enforcement.*

Severity potential:

- **Minor** - Accident could have caused only minor injury or property damage.
- **Major**: Accident could have caused death or permanent disability or extensive damage to building, equipment, or materials.
- **Serious** - Accident could have caused permanent partial disability or temporary total disability (*lost time from work*) or serious property damage.

Recurrence potential: The relative probability that the same or similar accident could reoccur.

Reasons for recurrence: Why did another similar accident occur? (i.e. corrective actions were not taken, etc.)

APPENDIX B

JOBSITE INSPECTION LIST

OFFICE

- Safety Programs
- Copies of SDS
- OSHA 200
- OSHA Posters
- Other Posters
- Emergency Poster/
Address/Phone
- Toolbox Talks
- Supervisors Meetings/
Safety Minutes
- First Aid Kits
- Supervisors Log Book
- Accident Investigations
- Stairs to Trailer
- Guardrails
- Midrail
- Platform
- Trailer Grounded
- Tied Down

HOUSEKEEPING

- Housekeeping
- Trash Cans
- Garbage Chutes
- Portable Johns
- Heated/Ground

FIRE PROTECTION

- Labels
- Chemical Storage
- Gas Containers
- Fire Extinguishers
- Oxy./Act. Cylinders
- Propane Cylinders
- Fire Hydrants
Accessible
- Smoking

ELECTRICAL

- Temp. Lighting
- Panels Covered
- GFI or A.E.G.P.
- Double Insulated Tools
- Power Cords
- Power Lines

TRENCH/EXCAVATING

- Utilities Called
- Barricaded
- Spoils - 2 Feet Back
- Soil Type
- Angle of Repose
- Ladder Access
- Shoring
- Adjacent Structures
 - Public Areas
 - Water Control
 - Inspection

LADDERS

- Condition of Ladder
- Tied Off
- 3' Above Deck
- Cleated
- On Good Ground
- Open Step Ladders

STAIRS

- Breaks of $\geq 19''$
- Metal Pan
- Access
- Guardrail - 30' or More
- Midrail
- Landings - Every 12'
- Platform - 20' Beyond
Door

SCAFFOLDS

- Physical Damage
- Pinned Together
- Cross Bracing
- Guardrails, Toeboards
- Access
- Planking-Scaffold
Grade
- Wheels Locked
- On Firm Ground
- Use of Jacks
- Tied In

P.P.E

- Hearing
- Hard Hats
- Foot
- Gloves
- Eye, Face
- Respirator
- Safety Belts
- Harness
- Lanyard
- Heat
- Noise

TOOLS

- Guards
- Double Insulated
- Cords
- Air Hoses/Tied
- Certified - Powder
Activated

FALL PROTECTION

- Guardrails
- Warning Lines
- Monitor System
- Tie-Off
- Netting
- Controlled Access
Zones
- Hole Covers
- Fall Protection Plan
- Training
- Rebar Protection

MATERIAL HANDLING

- Equipment - LULL,
Forktruck
- Seatbelts
- Storage, Clear
Passage
- Gasoline - Refueling
Area
- Theft

ENVIRONMENTAL

- Co-Monitoring
- Signage
- Asbestos
- Lead
- Painting/Fireproofing
- Silt Fence

PUBLIC SAFETY

- Roadways
- Sidewalks
- Right of Way
- Dust/Mess
- Noise

CRANES

- Swing Radius
- Inspection Logs
- Outriggers
- Power Lines
- Slings, Hooks, Chokers
- Tag Lines
- Webbing
- Signal Person

COMMENTS: _____

APPENDIX C

MUSKA ELECTRIC'S NEW EMPLOYEE SAFETY ORIENTATION CHECKLIST

Employee Name: _____

Title: _____ Date Hired: _____

Initial each line item to indicate subject matter covered. For subject matter not applicable to the position for which the employee has been hired, indicate this by marking "NA."

AWAIR/CORPORATE SAFETY AND HEALTH PROGRAM

- Employee Responsibilities
- Accident Investigation
- Injury Reporting Procedures
- Safety and Health Committee
- Enforcement/Performance Improvement Process

PERSONAL PROTECTIVE EQUIPMENT(PPE)

- When PPE is required
- What PPE is required
- How to wear and adjust PPE
- Proper care, maintenance and disposal of PPE
- How to obtain PPE

EMPLOYEE RIGHT TO KNOW

- Review requirements of the OSHA standard
- Review the location and availability of the written program, list of hazardous substances and agents and Safety Data Sheets
- Review primary routes of entry
- Review known physical and health effects
- Review any potential for flammability, explosion or reactivity of substance
- Review appropriate emergency treatment
- Review known proper conditions for use of and exposure to the substance
- Review procedures for clean-up of leaks and spills
- Review manufacturer information
- Reading labels and SDS's to obtain appropriate hazard information
- Protective measures to be taken to eliminate or reduce exposure including; safe working practices and personal protective equipment

FORKLIFT OPERATION

- Rules and practices
- Operational training

LOCKOUT/TAGOUT

- Purpose
- Procedure
- Equipment Surveys

DEPARTMENT OF TRANSPORTATION

- Driver qualification file
- Hazardous materials
- Drug and alcohol testing
- D.O.T. physical
- Driving record
- Past employees

EMERGENCY EVACUATION PLAN

FIRE EXTINGUISHER USAGE

ERGONOMICS

- Risk Factors
- Prevention methods
 - Material handling
 - Proper body mechanics
 - Proper workstation design
 - Proper usage of tools and work aids

HOUSEKEEPING

FALL PROTECTION

SCAFFOLDING

These signatures document that the appropriate elements have been reviewed and that all parties accept responsibility for maintaining a safe and healthy work environment.

Supervisors Signature: _____

Date: _____

Safety Coordinator's Signature: _____ Date: _____

Employee's Signature: _____ Date: _____

APPENDIX D

MUSKA ELECTRIC
LOCKOUT/TAGOUT
Equipment Survey & Periodic Inspection

PERSON INSPECTING: _____ **DATE:** _____

OTHER EMPLOYEES INCLUDED IN THE INSPECTION:

EQUIPMENT:

TYPE OF CONTROL (LOCKOUT / TAGOUT / BOTH):

HOW:

WHEN CONTROLLED:

WHO:

CHANGES MADE:

SIGNATURE: _____

APPENDIX E

**THE COMPANY
RESPIRATORY MEDICAL RELEASE**

_____ has been examined by me and is medically able to wear
(Employee Name)
respiratory protective equipment as part of his/her job function.

Signature of Doctor

Date

Name of Doctor: _____

Address: _____

Phone Number: _____

Additional Comments: _____

Employee Name

Employee Social Security Number

THE COMPANY RESPIRATORY TRAINING MEETING

On _____, I attended a training meeting concerning respiratory protection. To determine the proper fit,

A(n) _____ fit test was performed. Topics discussed at the meeting were as follows:

- 1) Need for respiratory protection.
- 2) Types of cartridges and/or filters and pre-filters used for contaminants utilized within my facility.
- 3) Cleaning and care of respiratory equipment.
- 4) Need for the wearer to utilize the respiratory equipment correctly.
- 5) Instructions on the simple qualitative fit test "Negative and Positive Pressure Check" to assure proper fit each time the face piece is worn.
- 6) Limitations of the respirator.
- 7) Specifications as they apply to the job.

These topics were explained to me and I understand the needs and applications of respiratory equipment as it pertains to my specific job function.

Type of respirator, filter and/or cartridge issued.

To be used while (contaminant application):

Employee Name

Company Safety Coordinator

Employee Signature

Company Safety Coordinator Signature

RECERTIFICATION DATES (Refresher Training, Fit Testing):

**Date of Recertification
Signature**

Employee Signature

Company Safety Coordinator

THE COMPANY
RANDOM COMPLIANCE INSPECTION/MAINTENANCE REPORT

Date: _____

Department: _____

Mask Issued To: _____

Date of Issuance: _____

Hazard Protected Against: _____

TRAINING

Date of Last Certification: _____

SELECTION

Type of Respirator in Use: Half Face _____ Full Face _____

Type of Filter, Pre-Filter, Cartridge: _____

USE

Positive/Negative Fit Test: Pass _____ Fail _____

CLEANING/MAINTENANCE

Method of Cleaning: _____

Frequency of Cleaning: _____

General Condition of Mask: _____

Any Parts Needing Replacement: _____

Inspector Name

Inspector Signature

Title

APPENDIX F

**EMPLOYEE/PROSPECTIVE EMPLOYEE
PERMISSION LETTER
(FAIR CREDIT REPORTING ACT NOTIFICATION)**

Muska Electric

Date: _____

It is understood that my job position requires me to drive a (company owned vehicle) (my own car on company business). I understand that the insurance company writing your automobile insurance requires a copy of my current driving record to assess my insurability.

By this letter, I hereby authorize the insurance company, its agent or you, the employer, to obtain the necessary motor vehicle records.

My signature also verifies that I understand that if I receive a notice that my license, permit, or privilege to operate a vehicle has been revoked, suspended, or withdrawn, I am to notify the company Safety Coordinator with the contents of the notice before the end of the business day following the day I received it.

(Printed Name of Employee)

X _____
Employee Signature

Date of Birth

Date: _____

Driver's License Number: _____

State Driver's License is Issued: _____

Expiration Date of Driver's License: _____

APPENDIX G

SELF-INSPECTION CHECKLIST - CONFINED SPACE

This checklist covers most of the important confined space requirements of the OSHA regulations and standards.

Please use this checklist as a general reference to ensure you are following our procedures.

Subject	Yes	No	Requirements	Action/Comment
General			Evaluate the workplace to determine if any spaces are permit-required confined spaces.	
			Post danger signs or other warning devices to inform employees of the existence, location, and danger of permit spaces.	
			Take effective measures to prevent employees from entering permit spaces in accordance with 1910.146(c.1-2), (c.6), and (c.8).	
			Evaluate non-permit confined spaces when use or configuration of such spaces increases hazards to entrants.	
Working with Contractors			<i>If contractors are hired to perform work in permit spaces:</i>	
			Inform contractors of hazards that make the workplace a permit space;	
			Notify contractors of precautions taken to protect personnel in or near permit spaces; and	
			Coordinate entry operations with the contractor and discuss any hazards the contractor may have confronted or created during work.	
			<i>Contractors working in permit spaces must:</i>	
			Obtain available information on hazards and entry operations from employers; and	
			Coordinate entry operations with employers and inform them of hazards confronted or created during work operations.	
Permit-Required Confined Space Program			Prevent unauthorized entry.	
			Identify and evaluate hazards of permit spaces before employee entry.	
			Initiate lockout/tagout procedures.	
			Purge, flush, or inert permit spaces to control atmospheric hazards.	
			Provide pedestrian, vehicle, or similar barriers to protect entrants from external hazards.	
			Verify acceptable conditions during entry.	

Subject	Yes	No	Requirements	Action/Comment
Permit-Required Confined Space Program			Supply properly maintained equipment at no cost to employees and ensure they use the equipment properly.	
			Post at least one authorized attendant outside permit spaces during entry.	
			Identify names and duties of all personnel involved in permit space entry.	
			Properly train all involved personnel.	
			<i>Develop and implement procedures for:</i>	
			Calling rescue and emergency services;	
			Rescuing entrants;	
			Providing necessary emergency services;	
			Preventing unauthorized personnel from attempting rescues;	
			Coordinating entry operations of employees of multiple companies working in the same permit spaces; and	
			Concluding entry.	
Equipment Needs			<i>Necessary equipment includes:</i>	
			Testing and monitoring equipment;	
			Ventilating equipment;	
			Communication equipment;	
			Personal protective equipment;	
			Lighting equipment;	
			Barriers and shields;	
			Equipment for safe ingress and egress; and Rescue and emergency equipment, unless provided by rescue services.	
Evaluation			<i>Evaluate space conditions by:</i>	
			Testing conditions in spaces prior to entry;	
			Testing or monitoring spaces or acceptable entry conditions; and	
			Testing for oxygen, combustible gases and vapors, and toxic gases and vapors, in that order.	
			Review entry operations when it is believed that measures taken under the permit space program may not protect employees.	
			Revise and correct the permit space program before authorizing subsequent entries.	
			Review the permit space program one year after each entry and revise if necessary.	

CONFINED SPACE ENTRY PERMIT

Location _____

Date of Entry _____

Time Issued _____

Expiration Date _____

Employee(s) assigned to enter _____

Description of known hazards present in confined space _____

	REQUIRED		COMPLETED	
	Yes	No	Yes	No
A. Atmospheric test before and during Type of testing instrument _____				
1. Oxygen (19.5% to 23%)	_____	_____	_____	_____
2. Hydrogen Sulfide gas (below 20 ppm)	_____	_____	_____	_____
3. Explosive Gases (less than 10% LEL)	_____	_____	_____	_____
B. Designated person/firm performing testing _____				
C. Protective equipment for entry and rescue				
1. Harness and lifeline on person entering and tied off or secured	_____	_____	_____	_____
2. Worker(s) wearing monitor	_____	_____	_____	_____
3. Worker wearing proper respiratory equipment	_____	_____	_____	_____
4. SCBA (5 min. or more) with worker	_____	_____	_____	_____
5. Spare harness and lifeline with observer	_____	_____	_____	_____
6. Spare SCBA (15 min. or more) with observer	_____	_____	_____	_____
7. Ventilation equipment	_____	_____	_____	_____
D. Description of any additional hazards that may be expected to be generated by the entrance activities in the space and action taken to correct condition. _____ _____ _____				
E. Special work practices to be followed:				
1. Communication signals understood	_____	_____	_____	_____
2. Emergency procedures understood	_____	_____	_____	_____
F. Ventilate before and during	_____	_____	_____	_____

Personnel involved in this entry have received instructions on safety procedures and hazards of this job and the permit is complete.

 Signature of Safety Coordinator

 Signature of person(s) permitted to enter

APPENDIX H

DRIVER EVALUATION FORM

Division: _____ **Name:** _____

Terminal: _____ **Date:** _____

Instructions

1. Review the employee's or prospective employee's MVR and assign appropriate points for each violation in the score box.
2. If prospective driver has a driver evaluation score of 6 or greater, serious re-consideration should be given to his/her qualifications prior to hiring.

	<u>Points</u>	<u>Score</u>
A. Number of "at fault" accidents (within the last 3 years)		
● None	0	_____
● 1	1	_____
● 2	2	_____
● 3	6	_____
B. Moving violations (within the last 3 years)		
● Hit and run, leaving the scene of an accident	6 each	_____
● Driving under the influence of alcohol or drugs	6 each	_____
● Any felony, homicide or manslaughter involving use of a motor vehicle	6 each	_____
● License suspension or revocation	6 each	_____
● Implied consent refusal (refusal to take blood alcohol test)	6 each	_____
● Racing or excessive speeds (20 mph over limits)	4 each	_____
● Reckless, negligent or careless driving	4 each	_____
● Speeding	2 each	_____
C. Moving violations (within the last 3 years)		
● None	0	_____
● 1 or 2	1 each	_____
● 3 and over	1 each	_____
D. Moving Violations (within the last 3 Years)		
● Operating a motor vehicle without a valid driver's license		Termination / Do Not Hire

<u>Grading</u>	
Best	0-1
Average	2-3
Questionable	4-5
Poor	Over 5

Completed by: _____

APPENDIX I

ACKNOWLEDGEMENT OF RECEIPT OF SAFETY AND HEALTH PROGRAM

I acknowledge the receipt of a copy of Muska Electric's Safety and Health Program. I understand that it is my responsibility to read and understand the policies and procedures set forth in the Safety and Health Program. I also understand that violating the policies and procedures outlined in Muska Electric's Safety and Health Program and/or failure to follow safe working practices will result in disciplinary action up to and including discharge.

Employee Name: _____

Employee Signature: _____

Job Classification: _____

Date: _____

* This form is to be completed and turned into the office upon receipt of a copy of Muska Electric's Safety and Health Program.