THE HJ FAMILY OF COMPANIES

SINCE 1969

SAFETY MANUAL

MARCH 2024

Section 1--Corporate Safety Policy

The Occupational Safety and Health Act of 1970 clearly states our common goal of safe and healthful working conditions. The safety and health of our employees continues to be the first consideration in the operation of our business.

Safety and health in our business must be a part of every operation. Without question it is every employee's responsibility at all levels.

It is the intent of H-J to comply with all laws. To do this we must constantly be aware of conditions in all work areas that can produce injuries. No employee is required to work at a job he or she knows is not safe or healthful. Your cooperation in detecting hazards and, in turn, controlling them is a condition of your employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct.

The personal safety and health of each employee of ***H-J*** is of primary importance. The prevention of injuries and illnesses is of such consequence that it will be given precedence over operating productivity whenever necessary. To the greatest degree possible, management will provide all mechanical and physical facilities required for personal safety and health in keeping with the highest standards.

Our objective is a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum. Our goal is always zero accidents and injuries.

F Skeketa III

Signature

CEO

Name and Title

SECTION 2—Company Policies and Procedures

1. PROGRAM REQUIREMENTS.

H-J will ensure that the hazards at our Facility are evaluated and communicated to its employees and that proper protective measures are provided. Safety is also the responsibility of every employee of this company. The SAFETY DEPARTMENT is authorized to amend these instructions. This program will be maintained in accordance with OSHA Regulations 29 CFR 1910, 1904 &1903. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. WRITTEN INDIVIDUAL PROGRAMS.

H-J will maintain written individual procedures for the types of hazards/issues that our employees will or could potentially be exposed to. Programs will be reviewed/revised on an annual basis or as required by the respective governing OSHA Standard. Each written program will be communicated to all personnel that are affected by it. Each will encompass the total workplace, regardless of the number of workers employed or the number of work shifts. They will be designed to establish clear goals and objectives.

3. HEALTH AND SAFETY PROGRAM RESPONSIBILITY.

3.1. Company Owner Responsibilities. The Owners of ***H-J*** recognize the importance of safety and have committed to creating a place of employment which is free from recognized hazards. The Owners is ultimately responsible for the safety of all employees of ***H-J***. The Owners will ensure that all levels of management in the company are delegated the necessary authority to cultivate a safe environment and to take the appropriate actions to correct any deviations or deficiencies relating to safety on the job. The Owners will also be responsible for making available the funds necessary to ensure that employees are provided with effective safety equipment to perform their work.

3.2. SAFETY DEPARTMENT Responsibilities. The company SAFETY DEPARTMENT will be responsible for the day-to-day management of the company safety program. The SAFETY DEPARTMENT will assist the company in remaining in compliance with all applicable health and safety regulations. The SAFETY DEPARTMENT will identify and coordinate training sessions to ensure that all employees are equipped with the needed safety skills and knowledge. The SAFETY DEPARTMENT will perform inspections of Facility and take the appropriate actions to correct any deviations or deficiencies relating to safety on the job.

3.3. Supervisor Responsibilities. Company Supervisors are responsible for the daily enforcement of the policies and procedures in the ***H-J*** safety program. They will be responsible for all aspects of employee safety in their respective areas. They will conduct periodic safety meetings for their employees. Supervisors will monitor the safety of employees daily and take the appropriate actions to correct any deviations or deficiencies relating to safety on the job. Supervisors will be attentive to employee safety concerns and report them to the SAFETY DEPARTMENT. They will keep in communication with the SAFETY DEPARTMENT to ensure all employees receive training, refresher training, or retraining as needed.

3.4. Employee Responsibilities. Employees are the first lines of defense as it pertains to safety at ***H-J*** Facilities. Employees are expected to abide by all the safety policies and procedures in the company safety program. They will be held responsible for their own safety and are expected to report unsafe conditions to their Supervisors immediately. If the Supervisor is unavailable, they will report safety violations or concerns to the Plant Manager or Safety Department. Employees, if feasible, are also expected to correct safety violations within their immediate areas. They will ensure they report to

work in a state of readiness, with the appropriate clothing, and with all issued personal protective equipment. Employees will only operate equipment on which they have been trained and authorized to use. They will report accidents, injuries, and near misses immediately to their Supervisor.

4. Access to Medical and Exposure Records Policy

4.1 Company Policy

H-J is committed to providing a safe and healthful work environment for our entire staff. The purpose of this policy is to ensure that employees know they can access their exposure records. This Policy has been developed in accordance with Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.1020.

4.2 Responsibility

Employees may access any employee exposure records that show the measuring or monitoring of their own exposure to a toxic substance or harmful physical agent. If ***H-J*** does not have any records that specifically chart your own exposure levels, the employee may access the exposure records of employees who engage in similar work or working conditions and may have experienced exposures similar.

H-J Safety Department will provide initial and annual training to each employee who has medical and exposure records.

4.3 Methods of Compliance

Employee exposure records include the following:

- Monitoring results of workplace air or measurements of toxic substances or harmful physical agents in the workplace, including personal, area, grab, wipe, or other forms of sampling results;
- Biological monitoring results, such as blood and urine test results; and
- Safety data sheets (SDSs) containing information about a substance's hazards to human health.

Employees may also access any employee medical record concerning their health status that were created or maintained by a physician, nurse, health care professional, or technician. Employee medical records include the following:

- Medical and employment questionnaires or histories;
- Results of medical examinations and laboratory tests;
- Medical opinions, diagnoses, progress notes, and recommendations;
- First-aid records;
- Descriptions of treatments and prescriptions; and
- Employee medical complaints.

Employee medical records are to be stored for at least the duration of the employee's employment plus 30 years, except for:

- Health insurance claims records that are maintained separately from ***H-J*** medical program and its records.
- First-aid records made onsite by a non-physician of one-time treatment and later observations of minor scratches, scrapes, or other injuries that did not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.
- Medical records of employees who have worked for less than 1 year as long as ***H-J*** offers all such records to the employee upon termination of employment.

4.4 Training

Employees or their designated representative may access medical and exposure records in one of three ways:

- The employer may give employee a copy of the document; or
- The employer may provide facilities for the employee to copy the document; or
- The employer may loan the employee the document to copy it offsite.

Upon first entering into employment, and at least annually thereafter, the Safety Department will inform each employee of the following:

- The existence, location, and availability of employee records for exposure to toxic substances or harmful physical agents;
- The person responsible for maintaining and providing access to records; and
- The employee's right of access to the records.

Note: Notification can be distributed during annual training sessions and safety meetings, in an annual letter to all employees, or through a bulletin board.

4.5 Appendix A

Notice To All Employees (example)

If you are an employee who may have been exposed to toxic substances or harmful physical agents in the workplace, OSHA's regulation may help you detect, prevent, and treat occupational disease.

You have the right to access relevant exposure and medical records and to know how OSHA's standard covers you if you are any of the following:

- A current or former employee who is or may have been exposed to toxic substances or harmful physical agents;
- An employee who was assigned or transferred to work involving toxic substances or harmful physical agents; or
- The legal representative of a deceased or legally incapacitated employee who was or may have been exposed to toxic substances or harmful physical agents.

Designated employee representatives may access employee medical or exposure records and analyses created from those records only in very specific circumstances. Designated employee representatives include any individual or organization to whom an employee has given written authorization to exercise a right of access.

Employee medical records include the following:

- Monitoring results of workplace air or measurements of toxic substances or harmful physical agents in the workplace, including personal, area, grab, wipe, or other forms of sampling results;
- Biological monitoring results, such as blood and urine test results;
- Safety data sheets (SDSs) containing information about a substance's hazards to human health.
- Medical and employment questionnaires or histories;
- Results of medical examinations and laboratory tests;
- Medical opinions, diagnoses, progress notes, and recommendations;
- First-aid records;
- Descriptions of treatments and prescriptions; and
- Employee medical complaints.

If you are interested in reviewing or copying any of these records, contact H-J Safety Department who will make the necessary arrangements.

5. JOB SAFETY ANALYSIS.

5.1. Job Safety (Hazard) Analysis. Job hazard analysis is to be used to make a habit of safe work practices. It is also beneficial as a guideline to follow during new employee training efforts and for quickly identifying the cause of an accident should one occur. Each analysis should be periodically reviewed for possible improvements. All supervisors will be familiar with the proper completion of a Job Safety (Hazard) Analysis. The following basic steps should be followed in preparation of a job hazard analysis:

5.1.1. Select the jobs or specific tasks for hazard analysis.

5.1.2. Consider the task to be performed and inspect the area(s) to identify potential hazards.

5.1.3. Break the job or task into individual components or activities.

5.1.4. Identify the hazards associated with each component activity (ex. Falls, electric shock, chemical exposure, cuts, etc.).

5.1.5. Identify what procedures or equipment are needed to perform each component activity safely (ex. Ladders, scissor lifts, personal protective equipment, etc.).

5.1.6. Apply the analysis to the job.

6. ROUTINE SAFETY AND HEALTH INSPECTIONS.

Routine safety and health inspections of the H-J facilities will be conducted as necessary by the Safety Department, Safety Committee Member or designated individual. The inspection will be conducted to discover conditions and work practices that may lead to job accidents and industrial illnesses, through specific, methodical auditing, checking, or inspection procedures.

6.1. Inspection elements. The following inspection elements will be checked during safety inspections.

6.1.1.	Floors	Condition, slip, trip, falls
6.1.2.	Aisles	Marking, obstructions
6.1.3.	Stairs	Condition, railings, obstructions
6.1.4.	Ladders	Condition, Metal in electrical areas
6.1.5.	Exits	Obstructions, locked? lighted?
6.1.6.	Ventilation	Adequate, fans guarded? maintained
6.1.7.	Hand tools	Grounded, guarded, pressure switches
6.1.8.	Chemicals	SDS's, labels, storage, separated
6.1.9.	Compressed gas	Storage, heat sources, labels, training
6.1.10.	Guarding	Installed, over, under, around, between
6.1.11.	Lockout Tagout	Procedures, training, devices, tags
6.1.12.	Eye protection	Used, training, Z-87 rated protectors
6.1.13.	Fire protection	Extinguishers, training, locations
6.1.14.	First Aid	Kits, OSHA logs, training
6.1.15.	Confined Spaces	Marked, training, ventilation, equipment
6.1.16.	Work practices	Unsafe work practices observed. (list)

6.2. Inspection report. The SAFETY Department will provide a safety report based on the inspection items noted during the inspection to the appropriate supervisor.

7. SAFETY MEETINGS.

A well-ordered flow of information is essential to a good safety program. The company, through a program of safety meetings at all levels, intends to accomplish the goals of safety awareness, education, and participation.

7.1. We are committed to efficient and quality training that increases safety awareness amongst all employees.

7.2. Safety meetings for employees will be held on a regular basis to demonstrate management's commitment to accident prevention. Possible agenda items include but are not limited to the review of accidents, safety education, safety inspections, elimination of workplace hazards, new methods of improving job performance, employee training, personal protective equipment, safety incentives, hazard communication, lockout/tagout, respiratory protection, fall protection, and other safety policies.

7.3. It is vital to this Workplace Safety Program that all safety training and meetings be carefully documented. Written records of all safety meetings are the responsibility of the Supervisor(s). Training activities are the responsibility of the Safety Department.

8. HAZARD REPORTING.

All employees are required to report potential or known hazards immediately upon identification. If possible, the hazard should be eliminated immediately when found. Otherwise, the immediate supervisor must be notified and all work where employees are exposed to the hazard must be discontinued until the hazard has been removed.

9. GENERAL SAFETY RULES FOR ALL EMPLOYEES.

The following safety rules are established by this company as general safety rules for all Employees.

9.1. Never operate any machine or equipment unless you are authorized and trained to do so.

9.2. Do not operate defective equipment. Do not use broken hand tools. Report them to your supervisor immediately.

9.3. Never start on any hazardous job without being completely familiar with the safety techniques which apply to it. Check with your supervisor if in doubt.

9.4. Make sure all safety attachments are in place and properly adjusted before operating any machine.

9.5. Do not operate any machine or equipment at unsafe speeds. Shut off equipment which is not in use.

9.6. Wear all protective garments and equipment necessary to be safe on the job. Wear proper shoes. Sandals or other open-toed are prohibited in the Manufacturing Plant.

9.7. Do not wear loose, flowing clothing or long hair while operating moving machinery.

9.8. Never repair or adjust any machine or equipment unless you are specifically authorized to do so by your supervisor.

9.9. Never oil, clean, repair, or adjust any machine while it is in motion.

9.10. Never repair or adjust any electrically driven machine without proper LOTO procedures.

9.11. Put tools and equipment away when they are not in use.

9.12. Do not lift items which are too bulky or too heavy to be handled by one person. Ask for assistance.

9.13. Keep all aisles, stairways, and exits clear of skids, boxes, air hoses, equipment, and spillage.

9.14. Do not place equipment and materials to block emergency exit routes, fire boxes, sprinkler shutoffs, machine or electrical control panels, or fire extinguishers.

9.15. Stack all materials neatly and make sure piles are stable.

9.16. Keep your work area, machinery, and all company facilities which you use clean and neat.

9.17. Do not participate in horseplay, or tease or otherwise distract fellow workers.

9.18. Power-truck operators must always safeguard other workers; workers must show courtesy to power-truck operators.

9.19. Frayed or damaged electrical cords should be replaced.

9.20. Never take chances. If you are unsure, you're unsafe!

9.21. Ask for help, if needed.

10. Disciplinary Actions for Unsafe Acts/Safety Policy Violations.

Employee safety is paramount at ***H-J.*** The willful commitment of an unsafe act cannot be condoned. Employees who willfully jeopardize their own or coworkers' safety will be disciplined. The type of discipline can range from a verbal warning to dismissal. The Safety Department, and supervisory personnel in the administrative chain of any employee may give employees a verbal or written warning for a known unsafe act or procedural, or operational infraction.

10.1. Forms of discipline.

10.1.1. Verbal warning. The company Safety Department, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction. The verbal warning, will be documented with a sign off.

10.1.2. First Written warning. A written warning will be issued automatically for a second verbal warning for an unsafe act. The written warning will become part of the employee's permanent personnel record.

10.1.3 A second written warning, which carries a three (3) day suspension.

10.1.4 Termination H-J reserves the right to skip any and all stages in the disciplinary process at its discretion. Points and corrective action will drop off a year after the date it is incurred.

10.1.5 Retraining. It must be considered that the possibility exists that lack of proper training may be a cause of any unsafe act. Supervisors will review the need for employee remedial training in their job skills to enable them to better accomplish their jobs.

11. Recordkeeping requirements.

H-J fully understands that companies with eleven (11) or more employees at any time during the calendar year immediately preceding the current calendar year must comply with the provisions of 29 CFR 1904. Records will be established on a calendar year basis.

11.1. ***H-J*** shall report to OSHA, as required by 29 CFR 1904.39, all fatalities, hospitalizations, amputations, and losses of an eye because of work-related incidents. Incidents that will be reported to the nearest OSHA Area Office include:

11.1.1. Fatalities within eight hours after the occurrence to one or more employees, and

11.1.2. Within 24 hours of learning of any incident which results in hospitalization, amputation, or loss of an eye of an employee.

11.2. Log and summary of occupational injuries and illnesses. This employer will:

11.2.1. Maintain a log and summary of all recordable occupational injuries and illnesses by calendar year.

11.2.2. Enter each recordable injury and illness on the log and summary as early as practicable but no later than 7 working days after receiving information that a recordable injury or illness has occurred. For this purpose, form OSHA No. 300 or an equivalent which is as readable and comprehensible to a person not familiar with it will be used. The log and summary will be completed in the detail provided on the form and instructions on form OSHA No. 300.

11.3. Supplementary record. In addition to the log of occupational injuries and illnesses (OSHA 300) ***H-J*** will have available for inspection and within 7 working days after receiving information that a recordable case has occurred, a supplementary record for each occupational injury or illness for that establishment. The record will be completed in the detail prescribed in the instructions accompanying OSHA 301 form. Workmen's compensation, insurance, or other reports are acceptable alternative records if they contain the information required by Form OSHA No. 301 (according to OSHA). If no acceptable alternative record is maintained for other purposes, Form OSHA No. 301 will be used, or the necessary information will be otherwise maintained.

11.4. Annual summary. ***H-J*** will post an annual summary of occupational injuries and illnesses. This summary will consist of a copy of the year's totals from the form OSHA No. 300A and the following information from that form:

11.4.1. Calendar year covered.

11.4.2. Company Name and establishment address.

11.4.3. Certification signature, title, and date.

11.4.4. A form OSHA No. 300A will be used in presenting the summary. If no injuries or illnesses occurred in the year, zeros will be entered on the totals line, and the form posted.

11.4.5. The summary will be completed by February 1 of each calendar year. This company, or the SAFETY DEPARTMENT or employee of ***H-J*** who supervises the preparation of the log and summary of occupational injuries and illnesses, will certify that the annual summary of occupational injuries and illnesses is true and complete. The certification will be accomplished by affixing the signature of the employer, the Safety Department or employer who supervises the preparation of the annual summary of occupational injuries and illnesses, at the bottom of the last page of the summary.

11.4.6. ***H-J*** will post a copy of the establishment's summary in BOTH facilities. The summary covering the previous calendar year will be posted no later than February 1 and will remain in place until April 30.

11.5. Records retention. Records will be retained for 5 years following the end of the year to which they relate.

SECTION 3—Emergency Action Plan

SCOPE
This plan applies to all ***H-J*** Employees, Visitors, and Contractors/Vendors in BOTH Facilities.

1. WORKPLACE EMERGENCIES

Introduction

This Emergency Action Plan (EAP) establishes guidelines for all reasonably foreseeable workplace emergencies. Because each emergency situation involves unique circumstances, the guidelines provide general guidance only. Thoughtful actions based on situation assessment are always required when responding to an emergency. It is also important to note that emergency guidelines do not necessarily represent sequential series of steps.

The H-J ENTERPRISES Emergency Preparedness and Response program consist of the following elements:

1. Prevention. H-J ENTERPRISES focuses on preventing hazards from occurring, whether they are Safety Issues, natural, or technological—accomplished through Hazard Analysis and daily observations.
2. Mitigate the Hazard in effort to reduce loss of life and property by lessening the impact of disasters and emergencies. H-J ENTERPRISES has established guidelines for all reasonably foreseeable workplace emergencies. H-J ENTERPRISES employees are involved in the planning process, our plan specify what employees should do during an emergency, and

   We conduct company-wide safety training to inform all employees and help them understand the procedures and safety expectations.
3. Preparedness: method for reporting fires and other emergencies; An evacuation policy and procedure; Emergency escape procedures and route assignments, such as floor plans, workplace maps, and safe or refuge areas; Designated & Trained First Responders, and First Aid Kits, and Training.
4. Response—designated responsibilities & Roles to evacuated, Shelter in place, accountability, accessible SDS for chemical spills, etc.…
5. Evaluation: Conduct assessments to see if there are areas that need to be improved.

General Information
Emergencies can be identified as Medical, Fire, Severe Weather, Bomb Threats, Chemical Spills, Terrorist Attacks, Criminal Acts, Extended Power Loss, etc. Personnel should identify these emergencies and immediately report them to their SUPERVISOR and/or SAFETY DEPARTMENT and if “Deemed as an Emergency” call 911.

2. ROLES & RESPONSIBILITIES

Authority Rank: Emergency Coordinator, and AREA “SWEEP” & “Evacuation Point” Captains, these persons are responsible only for “Evacuating & Accounting For” personnel out to their designated Area and assisting personnel to their designated Assembly Area. Upon their arrival, Emergency Services will assume command.

A. Emergency Coordinator(s) (Safety Department)

<u>Non-Emergency Responsibilities:</u>

• Ensure the dissemination, implementation and updating of the EAP.
• Review and update EAP annually.
• Ensure personnel are assigned to all EAP positions.
• Conduct exercises as needed to optimize our personnel emergency response.
• Conduct and document an After-Action Review following any emergency event and provide a copy to H-J Management.

The EAP will be maintained in accordance with OSHA and High Ridge/Jefferson County and shall include:

- Emergency escape procedures and emergency escape route assignments.
- Procedures to be followed by personnel who remain behind to operate/conduct critical operational requirements before they evacuate.
- Procedures to account for all personnel following evacuation.

Duties/Responsibility during an Emergency:

• Ensure Area Captains initiate and complete accountability and/or evacuation.
• Coordinate the orderly evacuation of personnel when needed.
• Obtain accountability for our personnel following the incident and/or evacuation.
• Provide Emergency Response personnel with necessary facility information.
• Notify Emergency Response of unaccounted for personnel.

B. AREA "SWEEP" & "Evacuation Point" Captains

AREA "SWEEP" & "Evacuation Point" Captains and one alternate will be assigned to each zone; ZONES correspond to Departments. SEE APPNEDIX B.

Non-Emergency Responsibilities:

- Understand the building's emergency procedures and be prepared to assume his/her responsibilities promptly and calmly in an emergency.
- Maintain an accurate roster of all members assigned to his/her zone, which will be frequently updated upon the arrival of any new personnel.

Duties/Responsibilities during an Emergency:

- **Put on a YELLOW SAFETY VEST, take your radio and/or cellphone; and copy of the Personnel Roster and ensure accountabilities for all personnel in your zone.**
- **During an evacuation, direct people to the CLOSEST Emergency Exit & Exit building.**
- **Upon arrival at the Assembly Area, confirm all personnel are present or are otherwise accounted for (e.g., illness, travel, vacation, meetings).**
- **Immediately notify Emergency Coordinator of unaccounted for/missing personnel.**
- **Aide for Persons with Disabilities (APD)**
    - Locate the Mobility Impaired Person(s) and assist them in getting to the closest Assembly Area.
    - Once the "All Clear" Command is given, assist the person back to their workstation.

C. All other Personnel

• Understand all information in the Emergency Action Plan.

• Read updates to the EAP when provided.
• Know the names and contact info for personnel serving as Emergency Coordinator and your "SWEEP" & "Evacuation Point" Captains, know and understand, evacuation routes and procedures, and Assembly Area location.

3. GENERAL INSTRUCTIONS FOR REPORTING 911 EMERGENCIES

If possible, immediately contact your Supervisor, Group Lead, or the Safety Department to report an emergency. Next, summon emergency assistance by CALLING 911

Be prepared to provide the following information:

• Your name and location.
• Phone number from where the call is being made.
• Location of the emergency, including facility name, full address.
• Type of emergency:

- ✓ Medical
- ✓ Fire
- ✓ Hazardous Material
- ✓ Criminal Act
- ✓ Bomb Threat

• Other important Information:

- ✓ Number and condition of victims.
- ✓ Location and extent of situation, hazard, fire, etc.
- ✓ Involvement of Hazardous Materials (as available, give product name and/or describe any markings, labels or placards).

DO NOT HANG UP FIRST. Let emergency personnel hang up first. After the call, station someone to direct Emergency Response personnel to the scene of the emergency.

4. MEDICAL EMERGENCIES

- ➢ Survey the scene; evaluate personal safety issues.
- ➢ Request assistance (SHOUT FOR HELP)
- ➢ Call 911

Provide the following information:
• Number and location of victim(s)
• Nature of injury or illness
• Hazards involved
• Nearest entrance (emergency access point)

Alert trained employees to respond to the victim's location and bring a first aid kit or Automated External Defibrillator (AED).

<u>Location of First Aid Kits and Automated External Defibrillator(s)</u>

3010 Building First Aid Kits:

- Office—Supply Room
- Safety Office
- Machine Shop Lead Desk
- Shipping Area
- Eye Bolt Area
- Foundry by Bay Door
- Foundry Office

3010 Building Automated External Defibrillators (AED):

- Administrative Office—Upper Level
- Administrative Office--Lower Level
- Safety Office
- Foundry
- Breakroom

EPC/PP Building First Aid Kits:

- Fabrication Area
- Supervisors Office
- Plating
- Maintenance
- Shipping

EPC/PP Building Automated External Defibrillators (AED):

- Supervisors Office
- Shipping
- Test Lab
- Brazing (B Wall)
- Plating (C Wall)

FIRST AID/AED Procedures

- Only trained responders should provide first aid assistance.
- Do not move the victim unless the victim's location is unsafe.
- Take "universal precautions" to prevent contact with body fluids and exposure to bloodborne pathogens.
- Meet the ambulance at the nearest entrance or emergency access point; direct them to victim(s).

5. EVACUATIONS (Fire, Gas Leak etc...)

EVACUATION: In the event of an emergency requiring Evacuation (Fire/Gas Leak), all employees will immediately exit the building, using an exit away from the Fire/Emergency Event, and go to designated Assembly Location. Instructions to evacuate the building will come from the announcement over the intercom or from your H-J Supervisor. Assembly Locations are:

- ☐ **3010 High Ridge Blvd Building**: Lower Parking Lot for all Machine Shop, Foundry, Fabrication, QA, and Maintenance.
  Upper Parking Lot for all Office, Engineering, Scheduling and Shipping/Receiving personnel.

- ☐ **EPC (PP) Building**: ALL personnel will assemble at the edge of EAST Parking Lot (furthest from the building).

- ☐ EPC (PP) Building: ALL personnel will assemble in the EAST Parking Lot (furthest from the building).

- Emergency Meeting Point # 1—Press, Custodian, Shipping/Receiving
- Emergency Meeting Point # 2—Maintenance, Test Lab, Quality, Chemical Engineering, 2nd SHIFT
- Emergency Meeting Point # 3—Brazing, Plating, CNC, Cutting, & 3rd SHIFT
- Emergency Meeting Point # 4—Purchasing/Office, HR, Tooling Dept

ALL Workers/Contractors/Visitors will report to their designated area(s) for a head count and will remain there until instructed by management that the building is safe to return.

6. TORNADIC/SEVERE WEATHER

TORNADO/SEVERE WEATHER: Instructions to TAKE SHELTER will come from the announcement over the intercom or from your H-J Supervisor. When a warning is issued by sirens or other means, seek shelter inside.

TORNADO SHELTERS:

- ☐ **3010 High Ridge Blvd Building:**
- All Employees will assemble in either the bathrooms by Shipping, bathrooms by foundry, and Lower-Level Administrative office.

- ☐ **EPC (PP) BUILDING:**
- Men's/Ladies Room located Next to the CAFETERIA.
- Kaizen Training Room

IF you cannot get to a Tornado Shelter Area, Look For:

- Small interior rooms on the lowest floor and without windows,
- Hallways on the lowest floor away from doors and windows, and
- Rooms constructed with reinforced concrete, brick, or block with no windows.
- Stay away from outside walls and windows.
- Use arms to protect head and neck.
- Remain sheltered until the tornado threat is announced to be over.

ALL Workers/Contractors/Visitors will report to their designated area(s) for a head count and will remain there until instructed by management that the building is safe to leave Shelter Area.

Evacuation/Severe Weather Shelters Facility Map
Floor plans of the facility are posted in conspicuous areas and are included in APPENDIX A of this Employee Emergency Action Plan. These plans detail the location of fire extinguishing devices, AED, First Aid Kits, Emergency Exits, and Severe Weather/Tornado Shelters.

7. Earthquake MO Dept of Public Safety—State Emergency Management Agency

You may not think of Missouri as being at risk of a major earthquake, but in 1811-1812, the New Madrid Seismic Zone produced three of the largest earthquakes ever experienced in the continental United States. The seismic zone is still active today, averaging more than 200 small earthquakes each year with some felt by nearby residents. Because an earthquake in the New Madrid Seismic Zone earthquake cannot be predicted, it is important to take steps to learn about earthquakes and to protect yourself.

What to do during an earthquake:

1. If indoors – take cover under sturdy furniture or against an inside wall. "Drop, Cover and Hold On" until the shaking stops. This means DROP down to the floor, take COVER and protect your head and neck with your arms, and HOLD ON to the sturdy piece of furniture you are under until the shaking stops.
2. If outdoors – stay there. Move away from buildings, streetlights and utility wires.
3. In a vehicle – stop as quickly as safety permits and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses or utility wires.

What to do immediately after an earthquake:

- Check for injuries.
- Be prepared for aftershocks.
- Wear sturdy shoes in areas covered with fallen debris and broken glass.
- If the electricity is out – use flashlights or battery-operated lanterns. Check the main utility panel.
- If you smell gas or hear a hissing sound – open a window and leave the building. Shut off the main gas valve outside the building.
- If water pipes are damaged – shut off the water supply at the main valve.

8. ACTIVE SHOOTER AND WORKPLACE VIOLENCE

Profile of an Active Shooter:
An Active Shooter is an individual actively engaged in killing or attempting to kill people in a confined and populated area, typically through the use of firearms.

How to respond when an Active Shooter is in your vicinity:

1. Evacuate	2. Hide Out	3. Take Action
• Have an escape route and plan in mind • Leave your belonging behind • Keep your hands visible	• Hide in an area out of the active shooters view • Block entry to your hiding place and lock doors	• As a last resort and only when your life is in imminent Danger • Attempt to incapacitate the active shooter • Act with physical aggression and throw items at the active shooter
CALL 911 WHEN IT IS SAFE TO DO SO!!!		

How to respond when Law Enforcement arrives on the scene

How you should react when Law Enforcement Arrives	
• Remain calm and follow officers' instructions. • Immediately raise hands and spread fingers. • Avoid making quick movements towards officers such as attempting to hold on to them for safety	• Avoid pointing, screaming, and/or yelling. • Do not stop to ask officers for help or directions when evacuating. Just proceed in the direction from which the officers entered the premises
Information you should provide to Law Enforcement	
• Location of active shooter • Number of shooters, if more than one • Physical description of shooter(s)	• Number and type of weapon(s) • Number of potential victims at the location

9. BOMB THREATS

Phone Bomb Threat

- Stay calm – do not alarm others.
- Notify your supervisor who will report the threat to law enforcement by CALLING 911. If the supervisor is not present, you make the call.
- The decision to evacuate the building will be made by law enforcement personnel.

Written Bomb Threat

- Remain calm and leave the message where it is found.
- Do not handle the document any more than necessary to preserve fingerprints and other evidence.
- Do not alarm others.
- Notify your supervisor who will report the threat to law enforcement by CALLING 911. If the supervisor is not present, you make the call.
- Do not give information to anyone except supervisor and law enforcement personnel.

APPENDIX A

EMERGENCY AGENCY TELEPHONE NUMBERS

FIRE:		911
POLICE:		911
AMBULANCE:		911
Poison Center :	Missouri Poison Center	(800) 222-1222
Ameren Electric Company		(800) 325-7002
Public Water Supply District #2		(636) 326-0200
Spire Natural Gas		(800) 887-4173

APPENDIX B
EMERGENCY "Sweep" and "Evacuation" Captains & Zones

3010 Building Department	**SWEEP ZONE**	**AREA "SWEEP" Captain**	**AREA "Evacuation Point" Captain**	**Alternate**
Administrative (Upper Level)	IT/HR/Admin/lobby/Restrooms	Lee Skyles	Tommy Tompson	Cole Hayse
Engineering	Engineer Office/Mezz/Scheduling	Brian Siedler	Chris Toby	Chris Stover
Shipping	Shipping/Restrooms	Manny Carrillo	Jesse Kennedy	Tom Williams
Machine Shop	Machine Shop/Assembly/Grinding/CNC Plating/Eye Bolt/SWECO	Chris Mouser	Danelle Harris	Feiza Kovacevic
Maintenance	Maintenance/Warehouse	Clyde Meyer	Tim Evans	
Foundry	Foundry/Restrooms/Locker Room/Cafeteria	Mike Flowers	Tony Huebner	Brian Voss
EPC/PP Building Departments 1ST SHIFT	**SWEEP ZONE**	**AREA "SWEEP" Captain**	**AREA "Evacuation Point" Captain**	**Alternate**
Tooling Shop	Tooling/Receiving Dock/Receiving Offices	Glen Frolos	Troy Stamer	
EPC/PP Building Departments 1ST SHIFT	**SWEEP ZONE**	**AREA "SWEEP" Captain**	**AREA "Evacuation Point" Captain**	**Alternate**
Warehouse	Shipping and Warehouse	Bryan Douglas	Alex Tiller	Stacie Luther
Test Lab & QC	Test Lab/QC/Offices	Cody Schott	John Lukas	
Epoxy	Epoxy/Shielding/Restrooms/Cafeteria	Rick Starkey	Christina Eckert	Jessica McCormick
Purchasing	Purchasing/Offices	Mark Wendle	Rebecca Mueller	Tim Wunderlich
Brazing/Plating	Brazing/Plating	Bob Merseal	Charlie Hennekes	Dan Bowen
Maintenance	Maintenance Shop	Eric Whitlock	Jim Hritz	Tony Griffin
EPC/PP Building Departments 2nd SHIFT	**SWEEP ZONE**	**AREA "SWEEP" Captain**	**AREA "Evacuation Point" Captain**	**Alternate**
Epoxy	Epoxy/Shielding/Test Lab/Maint. Shop	Tim McCann		
Brazing/Plating	Toolroom/Brazing/Plating/Restrooms/Cafeteria			
Shipping/Rec	Shipping/Receiving/Warehouse/Offices	Chris Donart		

EPC/PP Building Departments 3rd SHIFT	SWEEP ZONE	AREA "SWEEP" Captain	AREA "Evacuation Point" Captain	Alternate
Epoxy	Epoxy/Shielding/Test Lab/Brazing/Maint. Shop	Sherri Adams	TBD	Dawn Reiff
Tool Room	Toolroom/Plating/Warehouse/Cafeteria/Restrooms	Richard Hughes	TBD	

APPENDIX C
UTILITY SHUT DOWN IN THE EVENT OF AN EMERGENCY

1. **EPC/PP Building Fire Sprinkler System**
   The sprinkler system will need to be turned off if there are damaged sprinkler heads that could result in property damage.
   - The sprinkler shut off valves are located: North Exterior Wall by Maintenance Shop

2. **Electrical**
   The electrical system will need to be shut off during an Emergency Situation—to prevent Electrical Shock/Electrocution or other unforeseen situations. The person(s) authorized to shut down the electrical systems are Maintenance Personnel

3. **Natural Gas**
   Natural gas may need to be turned off (1) if there is a fire or (2) Gas leak that could result in fire or explosion. The person(s) authorized to shut them down are:
   A. Maintenance Manager
   B. Spire Gas 1-800-887-4173

4. **Potable (drinking) Water**
   The Drinking water may need to be shut off if a water line is broken or leaking and could cause property damage/loss. The person(s) responsible for shutting off the water is: Maintenance Personnel.

Section 4—OSHA Inspection Procedures

1. **PROGRAM REQUIREMENTS.**
   The purpose of this plan is to describe the specific actions required of ***H-J*** employees, Temps and Subcontractors upon the arrival of a Compliance Inspector at ***H-J*** facility to inspect facilities or equipment or to investigate matters related thereof. It is the responsibility of the Department of Labor, Division of Occupational Safety and Health Administration to carry out compliance for Occupational Safety and Health. In this regard, Federal OSHA Compliance Safety and Health Coordinators carry out the enforcement and monitoring aspects of the Act. ***H-J*** will review and evaluate this program on an annual basis, or when changes occur to the regulations, when operational changes occur that require a revision of this document, when there is an accident or near miss that relates to this area of safety.

2. **RESPONSIBILITY.**
   The SAFETY DEPARTMENT is the program coordinator, acting as the representative of ***H-J*** owners, who have the ultimate responsibility for all facets of the company. The SAFETY DEPARTMENT is the sole person authorized to amend these instructions. ***H-J*** has authorized the SAFETY DEPARTMENT and any Supervisor or Employee to halt any operation of ***H-J*** where there is danger of serious personal injury.

3. TRAINING REQUIREMENTS.

H-J will provide training to all supervisors to ensure that they understand the importance and the necessary procedures which must be taken in the event of an OSHA inspection. Training will be conducted by the SAFETY DEPARTMENT or other designated competent personnel. The training will include the information contained in this procedure and other applicable information as deemed necessary by the Safety Department.

4. RECEIVING THE COMPLIANCE COORDINATOR.

Upon arrival of a Compliance Inspector, the SAFETY DEPARTMENT shall greet the individual and verify the Compliance Coordinator's credentials. All personnel are expected to be courteous and professional during any OSHA inspection.

4.1. Subcontractor's representative(s) should participate in the inspection process. The Contractor may request time for their SAFETY DEPARTMENT and/or Insurance Administrator Safety Representative to get to the Facility and ask if the inspection can take place at a time when the company representative can be there.

5. OPENING CONFERENCE.

An opening conference will be conducted by the Compliance Inspector.

5.1. The Compliance Inspector will usually cover the following topics during the opening conference:

5.1.1. Nature and Purpose of Visit – Focused inspection, employee complaint, etc.

5.1.2. Scope of Inspection – Areas to be inspected, employee interviews, etc.

5.1.3. Equipment to be Used – Camera, Sound level meter, Air monitor, etc.

5.1.4. Records to be Reviewed.

5.2. Invitation to Participate in the Inspection.

5.2.1. Distribution of OSHA Materials – Copies of the Act, Standards, promotional materials, etc.

6. WALK AROUND INSPECTION.

The inspection shall be conducted within reasonable limits and in a reasonable manner during regular working hours except when mutually agreed upon by the parties concerned.

6.1. The Compliance Coordinator shall comply with all the safety and health rules during the inspection, including the wearing of required personal protective equipment.

6.2. During the inspection, the Compliance Coordinator may:

6.2.1. Agree to the participation of more than one employer representative and one employee representative in the walk around;

6.2.2. Interview, question, or invite comments from a reasonable number of employees. If consultation unduly hinders work activity, he/she may arrange for off-duty interviews at a location other than the workplace. Written statements may be taken under certain conditions;

6.2.3. Receive complaints from employees regarding possible violation(s) of the standards, provided there is no interference with the inspection.

6.3. The Compliance Coordinator shall be permitted to take photographs.

6.4. During the course of the inspection, ***H-J*** will:

6.4.1. Accompany the Compliance Inspector at all times during the inspection;

6.4.2. Take detailed notes of inspection activities (comments, samples/tests taken, records given/reviewed, location of photos taken, etc.);

6.4.3. Photograph anything that the Compliance Inspector photographs (if a camera is available);

6.4.4. If requested, ensure that the Compliance Inspector is permitted interviews with employees. Employees do not have to allow themselves to be interviewed and may insist that interviews be accompanied by another person(s).

6.5. At the conclusion of the walk around, the Compliance Inspector will ensure that employee representatives are informed of the apparent violation(s), if any, found during the inspection. Make careful notes about Compliance Inspector's questions concerning training and understanding by employees.

7. CLOSING CONFERENCE.

At completion of the inspection, a closing conference will be arranged to permit the Compliance Inspector to advise ***H-J*** of any alleged violation(s) observed during the inspection. The Compliance Inspector should indicate the applicable section(s) of the standards which are alleged to have been violated and provide the following:

7.1. Alleged violation(s), which may be the basis of a citation;

7.2. Methods used to establish abatement period(s);

7.3. Penalty determination procedures;

7.4. Appeal and contest procedures;

7.5. Abatement details and follow-up inspection;

7.6. Variance procedures;

7.7. Availability of an informal conference with the area director;

7.8. Distribution of OSHA material (if not done at the opening conference).

NOTE: As with the opening conference and walk-around inspection, detailed notes shall be taken by the Safety Department.

8. FOLLOW-UP ACTIONS.

After (if not during) the inspection process has been completed and the Compliance Coordinator has left the site***, H-J*** will immediately correct any violations, which can be abated "on-the-spot."

8.1. ***H-J*** shall direct any cited Subcontractor to correct/abate those violations for which the Subcontractor has control and which might expose employees to injury or illness.

Section 5—Personal Protective Equipment Program

1. PROGRAM REQUIREMENTS.

H-J will ensure that jobs having a potential for employee injury within our facility are evaluated and controlled. This program is intended to address the issues of evaluating and identifying potential job hazards and identifying the personal protective equipment (PPE) necessary to eliminate or minimize the risk to the

employee. This program will be maintained in accordance with OSHA Regulations 29 CFR 1910 Subpart I. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY.

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are responsible for identifying the type of PPE required for their subordinates, to ensure that all employees are issued the necessary PPE to perform daily tasks, and that their employees are properly trained in its use, care, and maintenance.

3. TRAINING REQUIREMENTS.

H-J will provide training to ensure that the purpose, use, care, and maintenance of PPE are understood by all employees.

3.1. General Training. Employees will be adequately trained about the Company's personal protective equipment program. Proper training will allow managers, supervisors, and workers to better understand the hazards associated with a job, task, or process.

3.2. Training Content. New employees and reassigned workers will receive an initial orientation and hands-on training prior to being placed in a job. The initial training program will include the following:

3.2.1. A description and identification of the hazards associated with particular jobs/tasks/machines/workstations.

3.2.2. Specific safeguards, how they provide protection, and the hazards for which they are intended.

3.2.3. Proper use, care, and maintenance of the necessary PPE.

3.2.4. Length of useful life of the equipment and the correct way to dispose of broken or damaged PPE.

3.3. Refresher training. The training content shall be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner.

3.3.1. Retraining shall be provided for all employees whenever there is a change in their job assignments, a change in machines, or equipment or processes that present a new hazard.

3.3.2. Additional retraining shall be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employees' knowledge or use of PPE.

3.4. Certification. ***H-J*** shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name, supervisor or instructors name and dates of training.

4. HAZARD PREVENTION AND CONTROL.

H-J understands that engineering solutions, where feasible, are the preferred method of control for workplace hazards. The focus of the Company's PPE Program is to eliminate hazards from the workplace. This is accomplished whenever possible by redesigning the workstation, work methods, or tool(s) to reduce

the hazards associated with the demands of the job. This program will, whenever possible, research into currently available controls and technology. PPE will be a last choice.

5. PPE NEEDS ANALYSIS.

H-J will identify through the use of medical management records, injury statistics, and walk-throughs, jobs that place employees at risk. After identifying those jobs, a PPE analysis will be conducted by the SAFETY DEPARTMENT to specifically address the associated hazards and develop controls for those hazards. This analysis will identify risk factors associated with the jobs and the recommended PPE. PPE will be specified for those hazards that cannot be controlled using other means.

5.1. PPE Analysis Criteria. The following items, at a minimum, will be considered when conducting the analysis:

5.1.1. Is the lighting adequate for work conditions?

5.1.2. Is there a potential for splash or spray from a chemical?

5.1.3. Are sharp tools or materials with sharp edges being used?

5.1.4. Are there explosive hazards associated with the job?

5.1.5. Are there electrical hazards associated with the job?

5.1.6. Is the noise level excessive (above 85db TWA)?

5.1.7. Is communication hampered because of excessive noise?

5.1.8. Is the vibration level excessive, leading to numbness?

5.1.9. Have industrial hygiene complaints been received?

5.1.10. Does the job involve confined spaces?

5.1.11. Does the job involve lock-out tag-out?

5.1.12. What atmospheric testing has been performed?

5.1.13. What atmospheric contaminants are present?

5.1.14. Will jewelry or clothing get caught in machinery?

5.1.15. Can the worker get caught between moving parts?

5.1.16. Can the worker fall from one level to another?

5.1.17. Can anything fall on the worker from above?

5.1.18. Is the worker in an off-balance position at any time?

5.1.19. Is the standing surface clean to maintain stability?

5.1.20. Are there extreme environmental conditions (heat/cold)?

5.1.21. Do possible eye/face injury conditions exist?

5.1.22. Do possible head injury conditions exist?

5.1.23. Do possible foot injury conditions exist?

5.1.24. Do possible hand injury conditions exist?

5.2. Documentation. Each analysis will be documented. ***H-J*** will use the PPE Analysis form found at the end of this program. Attachments will be included in the form as required to document or support

protective measure requirements for the specific job. Completed copies of the form will be signed by the Safety Department. The Company will maintain a copy of the form in the Safety Department office.

5.3. Analysis Results. Once the analysis has been conducted this information will be used to reduce general hazards in the work area. After the general hazards in the work area have been reduced to the lowest appropriate level, the necessary PPE will be issued to the employee and the employee will be trained as needed in the proper use of the equipment.

5.4. Job safety re-evaluation. SAFETY DEPARTMENT will conduct a reevaluation when one or more of the following conditions occur:

5.4.1. When an accident or injury occurs. It must be determined if the incident occurred as a result of the employee ignoring established safety practices, or if the safety practices need revision.

5.4.2. Anytime there is a change in the methods, materials, machinery, or procedures used in the conduct of the job.

5.5. Periodic review. A periodic review will be conducted on an annual basis to ensure that the job is evaluated for safety.

6. GENERAL PPE REQUIREMENTS.

Where engineering controls and administrative controls do not eliminate all job hazards, employees will (where appropriate) wear personal protective equipment (PPE). At a minimum, the following guidelines will be followed:

6.1. Loose clothing must not be worn near moving machinery.

6.2. Employees working in areas where chemicals, solvents, or other irritants, or caustic acids are used will be supplied with appropriate safety glasses, chemical resistant boots, aprons, chemically protective gloves, etc.

6.3. Rings and jewelry must not be worn when working on machinery.

6.4. Safety Glasses. ***H-J*** will make available safety glasses that meet American National Standards Institute requirements for Occupational and Educational Eye and Face Protection, Z87.1-1989, to all employees whose duties have the potential for exposing their eyes to injury from flying objects or electrical flash.

6.5. Prescription Safety Glasses. Employees that require the use of prescription glasses must wear OSHA standard Z87.1 glass and side-shields. If the employee's prescription glasses do not meet OSHA standards, the employee must wear safety glasses or goggles over their prescription glasses. Employees are responsible for maintaining a reserve pair of prescription glasses for use when prescription safety glasses are damaged or lost.

6.6. Hearing Protection. Employees working in areas where the noise level is 85 decibels or higher may obtain hearing protection through their supervisor or from the Safety Department.

6.7. Foot Protection. All employees will wear safety shoes (Steel Toe/Composite) with fully enclosed coverings to protect their feet and toes.

6.8. Employees with long hair (down to the shoulders) must tie their hair back or wear hairnets or caps when working on equipment with rotating spindles or other moving machinery.

6.9. Hand Protection. Supervisors are responsible to ensure that employees wear the designated hand protection (gloves) on the job.

6.10. ***H-J*** is not required to pay for everyday clothing such as long sleeve shirts, long pants, street shoes and normal work boots. The employer is also not required to pay for ordinary clothing, skin creams or

other items used solely for protection from the weather such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen.

6.11. 29 CFR 1910.132(h)(5); 29 CFR 1915.152(f)(5); clarifies that when an employee has lost or intentionally damaged the PPE issued to him or her, an employer is not required to pay for its replacement and may require the employee to pay for such replacement. ***H-J*** will use policies such as allowances, replacement schedules, and fair and uniformly enforced work rules to ensure that employees properly use and care for employer-provided PPE so long as the policies ensure that employees receive replacement PPE at no cost to them as required by the rule.

6.12. Hazard Identification/PPE Selection

- Familiarize the employees with the potential hazards and the type of protective equipment that is available, and what it can do, i.e., splash protection, impact protection, etc.
- Compare the hazards associated with the environment, i.e., impact velocities, projectile shape of masses, radiation intensities, with the capabilities of the available protective equipment.
- Identify the selected protective equipment which is at a level of protection greater than the minimum required to protect the employee from hazards.
- Fit the user with the protective device and give instructions on care and use of the PPE.
- Ensure that employees are made aware of all warning labels and limitations of their PPE.

Fitting the Device

Each employee will be fitted with appropriate PPE. PPE that fits poorly may not afford the necessary protection. Protective devices are generally available in a variety of sizes. Care should be taken to ensure that the right size is selected. Continued wearing of the device is more likely if it fits the wearer comfortably.

Hazard Changes

It is the responsibility of supervisors and employees to inform the Program Administrator if they identify a change in the workplace hazard situation.

Guidelines

Training will cover the company requirement of PPE usage. Each type of PPE provided will be reviewed as to its purpose and function in the work environment. As required, the following types of PPE must be covered:

- Eye and face protection
- Head protection
- Foot protection
- Hand protection
- Hearing protection
- Respiratory protection

7. CLEANING AND MAINTENANCE

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. It is also important to ensure that contaminated PPE, which cannot be decontaminated is disposed of in a manner that protects employees from

exposure to hazards. Refer to manufacturers recommendations regarding proper storage, use and maintenance of PPE).

7.1. Safety Glasses:

- Store in a clean, dry place away from chemical exposure.
- Inspect for cleanliness and structural or optical defects before each use.
- Replace if there are structural or optical defects.
- Clean before use if soiled or dirty. Clean and disinfect before each use if used by other individuals.
- Before putting on or removing, do not touch or adjust with wet or contaminated hands and gloves.
- Clean and sanitize if contaminated.

7.2. Hearing Protection (Ear plugs, Earmuffs, Canal caps, etc.):

- Store in a clean, dry place away from heat.
- Inspect for cracks or chips in ear cups and cuts, tears or breaks in cushions or other deterioration before each use.
- Replace if damaged or deteriorated.
- Adjust for snug and comfortable fit.
- Maintain hearing protection in a sanitary condition.

7.3. Safety Shoes:

- Store in a clean, dry place.
- Check before each use for damage or deterioration. Replace if soles are damaged or deteriorated.

8. CONTRACTORS

Contractors are required to follow all applicable OSHA PPE regulations. ***H-J*** shall inform contractors engaged in work activities of any additional ***H-J*** PPE requirements for the work being performed. Contractors are responsible for providing their own PPE.

Appendix A – PPE Hazard Assessments

Survey

The Program Administrator will conduct a walk-through survey of the workplace at least two times a year. The survey is to identify sources of hazards to employees. The following hazard categories will be examined in each area and for each person and their tasks:

- Impact
- Penetration
- Compression
- Chemical/Gasses
- Heat/Cold
- Harmful dust
- Light (Optical) radiation
- Noise
- Falling objects

- Vibration
- Electrical shock

Hazard Sources

During the walk-through survey, the Program Administrator will observe:

- Sources of motion, i.e., machinery or processes where any movement of tools, machine elements or particles could exist, or movement of personnel that could result in collision with stationary objects
- Sources of high temperatures that could result in burns, eye injury, ignition of protective equipment, etc.
- Types of chemical exposures
- Sources of harmful dust
- Sources of light radiation, i.e., welding, brazing, cutting, furnaces, heat treating, high-intensity lights, etc.
- Sources of falling objects or potential for dropping objects
- Sources of sharp objects which might pierce the feet or cut the hands
- Sources of rolling or pinching objects which could crush the feet
- Layout of workplace and location of coworkers
- Any electrical hazards

Injury and accident data will also be reviewed to help identify problem areas.

Results

Following the walk-through survey, the data and information will be organized by work area and job description. An estimate of the potential for injuries will be made. Each of the basic hazards will be reviewed and a determination made as to type, level of risk, and severity of potential injury from each of the hazards identified. The possibility of exposure to multiple hazards simultaneously will be considered.

Strategies for elimination, substitution, engineering, and administrative controls will be identified and implemented for all possible identified hazards. After applying all appropriate reduction and elimination techniques, the remaining hazards will be analyzed and the proper PPE to reduce the hazards will be selected. PPE will be identified for hazards that are in the process of being reduced or eliminated and/or when hazard-reduction efforts are not 100% effective in eliminating the hazards.

PLEASE SEE THE PPE BINDER FOR THE CURRENT PPE HAZARD ANALYSIS, ANNUAL REVIEW, AMMENDMENTS TO THE PROGRAM AND TRAINING RECORDS.

Appendix B – Hazard Assessment

Building: _____ Date: _____

Location: _____ Prepared By: _____

Job Task: _____

Does the job task present an occupational exposure to:

Eye Hazards	Yes	No	Hazard Description	Recommended PPE
Chemicals				
Dust				
Heat				
Cold				
Impact				
Light/Radiation				

Face Hazards	Yes	No	Hazard Description	Recommended PPE
Chemicals				
Impact				
Heat				
Cold				
Light/Radiation				

Hand Hazards	Yes	No	Hazard Description	Recommended PPE
Chemicals				
Impact/ Punctures				
Heat				
Cold				
Vibration				
Electrical Shock				
Cuts/Abrasions				

Foot Hazards	Yes	No	Hazard Description	Recommended PPE
Chemicals				
Impact/ Punctures				
Heat				
Cold				
Vibration				
Electrical Shock				
Compression				
Electrostatic Build-up				

Respiratory Hazards	Yes	No	Hazard Description	Recommended PPE
Fumes				
Mists				
Dusts				
Vapors				
Lack of Oxygen				
Particles				
Heat/Cold				

Noise Hazards	Yes	No	Hazard Description	Recommended PPE
Impact Noise >140 dBA				
Continuous Noise >85 dBA				

Head Hazards	Yes	No	Hazard Description	Recommended PPE
Chemicals				
Impact				
Heat				
Cold				
Light/Radiation				
Electrical Shock				

Appendix C – Annual Evaluation Report

Date of evaluation:	**Evaluated by (list all present):**
Written program reviewed: Yes No	
Detailed description of the procedures reviewed:	
Describe any procedure modifications:	
Have any new procedures been added?	
A review of the log of occupational injuries and illnesses (OSHA Form 300 or equivalent) and the associated accident reports and injury and illness reports was made: Yes No	
The following injuries resulted from failure to use the correct PPE:	
Any actions needed or taken to ensure PPE use:	
Comments:	

Section 6—Housekeeping Program

1. PROGRAM REQUIREMENTS.

H-J has implemented this program to address the issue of providing for maintaining an orderly, clean, and safe work environment at all times in all areas. Good housekeeping is a necessary requirement for maintaining safety at the facility. It is proven that clean and tidy work sites hold fewer hazards for all employees. This program will be maintained in accordance with OSHA Regulations OSHA 29 CFR 1910.141 and 1910.176. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY.

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who have the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and maintain their work areas in an orderly fashion throughout the day.

3. TRAINING REQUIREMENTS.

3.1. All of our employees, including contractor employees, need to understand the safety and health hazards of poor housekeeping and improper chemical storage to protect themselves, their fellow employees, and the citizens of nearby communities. While training in Hazard Communication will help employees to be more knowledgeable about the chemicals they work with as well as familiarize them with reading and understanding SDSs, we will also train them as part of our Housekeeping Program, covering housekeeping procedures and safe work practices, hazard reporting, and other areas pertinent to housekeeping.

3.2. Certification. ***H-J*** will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training.

3.3. Retraining. The training content will be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner.

3.3.1. Retraining will be provided for all affected employees whenever (and prior to) a change in their job assignments, a change in the type of safety procedures used, or when a known hazard is added to the work environment which affects worker safety.

4. HOUSEKEEPING.

Good housekeeping is a necessary requirement for maintaining safety at our facility, as clean and tidy work areas hold fewer hazards for all employees. Accidents and injuries are avoided, and productivity is improved where good housekeeping is a daily occurrence.

4.1. Good housekeeping is possibly the most visible evidence of management and employee concern for safety and health that a company displays on a day-to-day basis. Orderliness in our workplace contributes to a safe working environment by minimizing obstacles and potential safety and health threats such as spills, trip hazards, etc. In fact, we have nine good reasons for housekeeping:

- Prevents accidents
- Prevents fire
- Saves time
- Gives control to our workers
- Gives our workers the freedom to move
- Gives our workers pride
- Protects our products and equipment
- Reduces our waste

5. HAZARD ASSESSMENT.

Supervisors are responsible for identifying main housekeeping issues. Supervisors will look for a lack of order, un-removed spills or obstructions, or other hazards due to poor organization or poor housekeeping. All employees are required to participate in the housekeeping program and eliminate potential hazards as they arise. If a housekeeping issue cannot be immediately resolved the employee should report it to their supervisor immediately.

6. HOUSEKEEPING PROCEDURES.

It is the intent of ***H-J*** to standardize housekeeping measures, meet OSHA requirements, and encourage safety. The procedures listed below cover many of the common Facility housekeeping issues we may have.

6.1. All tools and equipment must be kept in good working condition. Hand tools, portable electric tools, extension cords and similar equipment should be kept in designated locations when not in use.

6.2. Aisles, Walkways, and Floors must be kept clear to allow for easy access to fire extinguishers, electrical disconnects, safety showers, and other emergency aids.

6.3. Electrical panels must be kept clear for an area of 36 inches in front.

6.4. Walkways not for pedestrian traffic must be clearly marked.

6.5. Keep aisles and walkways free of physical obstructions that would prevent access, including path-blocking objects, liquid or solid spills, and other obstructions.

6.6. Keep floors clean; dry (dry as possible); slip-resistant; and free of waste, unnecessary material, oil and grease, protruding nails, splinters, holes, or loose boards.

6.7. An adequate number of waste receptacles at accessible locations throughout all work areas must be provided.

6.8. All areas must be cleaned of scrap and tools before leaving to go home at the end of the day.

6.9. Office Areas, reception areas, meeting rooms, and/or personal office spaces as part of our office space must be clean throughout the workday.

6.10. Keep doors and windows properly maintained in good working order. Repair any damage to doors and windows at regular intervals.

Section 7—Hazard Communication Program

1. PROGRAM REQUIREMENTS.

H-J will ensure that the hazards of all chemicals used in our facility are evaluated and that information concerning their hazards is transmitted to all employees. The purpose of this program is to address the issues of evaluating the potential hazards of chemicals, communicating information concerning these hazards, and establishing appropriate protective measures for employees. This program will be maintained in accordance with 29 CFR 1910.1200 and updated annually or as required. ***H-J*** will make the written hazard communication program available to all employees, during each work shift. ***H-J*** acknowledges that the Hazard Communication requirements have been aligned with the **Globally Harmonized System of Classification (GHS)** and Labeling of Chemicals.

2. RESPONSIBILITY.

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who have the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** will submit a copy of this program to any Contractor upon request. Supervisors are required to be familiar with the contents of this program, will ensure the program is followed by their subordinates daily, and will maintain a copy of the program and SDS's available for their subordinates.

3. TRAINING REQUIREMENTS.

H-J will provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment, annually, and whenever a new chemical is introduced into their work area that could present a potential hazard.

3.1. Information. ***H-J*** employees will be informed of:

3.1.1. The OSHA standard 29 CFR 1910.1200.

3.1.2. Any operations in the facility where hazardous chemicals are present.

3.1.3. The location and availability of the written hazard communication program, including a list(s) of hazardous chemicals used at the facility, and the associated safety data sheet (SDS).

3.2. Training. Employee hazard communication training at ***H-J*** will be conducted annually by the SAFETY DEPARTMENT or an approved training provider. Newly hired personnel will be briefed on the general requirements of the OSHA hazard communication standard, as well as duty specific hazards before they begin any duties at the facility. This training will include at least the following:

3.2.1. Methods that may be used to detect the presence or release of a hazardous chemical in the work area. This will include any monitoring conducted by ***H-J***, continuous monitoring devices, visual appearance, or odor of hazardous chemicals when being released, etc. **Safety Data Sheets (SDS)** will be used to augment this requirement wherever possible.

3.2.2. The physical and health hazards of the chemicals present in the work area (e.g., flash point, reactivity, toxicity).

3.2.3. The measures employees can take to protect themselves from these hazards. Specific procedures ***H-J*** has implemented to protect employees from exposure to hazardous chemicals,

including appropriate work practices, programs, emergency procedures, and personal protective equipment.

3.2.4. An explanation of the labeling system used at ***H-J***, the safety data sheet, and how employees can obtain and use the appropriate hazard information.

3.2.5. The chemical (formal) and common name(s) of products used, and all ingredients which have been determined to be health hazards.

3.2.6. The primary route(s) of entry; inhalation, absorption, ingestion, injection, and target organs.

3.2.7. The OSHA permissible exposure limit, ACGIH Threshold Limit Value, includes any other exposure limit used or recommended by the chemical manufacturer.

3.2.8. Whether the hazardous chemical has been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC).

3.2.9. Any generally applicable precautions for safe handling and use which are known include appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks.

3.2.10. Emergency and first aid procedures.

3.3. Documentation. All training will be documented using an attendance roster. A copy of the completed training will go in their safety file.

4. LABELING REQUIREMENTS.

Labeling requirements of containers of chemicals used at ***H-J***. The following procedures apply:

4.1. Unmarked Containers. Employees of ***H-J*** will not use unmarked containers containing chemicals.

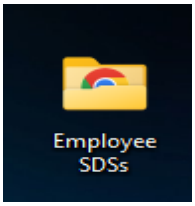
4.2. Container Labeling. ***H-J*** will ensure all containers are properly labeled. Employees will ensure that labels on containers of hazardous chemicals are not removed or defaced. Once they are emptied, chemical containers can never be used in the place of any other container (for example, trash receptacles).

4.3. Minimum labeling requirements. All container labels will list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible party.

4.4 Secondary Container Labeling. ***H-J*** will use the NFPA labeling system to identify hazardous chemicals in secondary containers. The SAFETY DEPARTMENT is responsible for affixing/completing NFPA labels. Extra labels are stored in Safety Department offices.

5. SAFETY DATA SHEETS AND HAZARDOUS MATERIALS INVENTORY LIST.

The SAFETY DEPARTMENT is responsible for obtaining SDS's for every chemical used by ***H-J***. The SAFETY DEPARTMENT will maintain a master copy in the Safety Department office. SDS's are available to all workers at the computer station they use to Clock IN/OUT. OBTAIN SDS: Employees will double click the ICON "Employee SDS" Here employees will find all H-J SDS Alphabetized, they can scroll down to find the product/chemical they are looking for, or they can type in the product/chemical name in the search bar.



In addition, the SAFETY DEPARTMENT will review the SDS's for all chemicals used to determine if additional precautions or special personal protective equipment will be required in order to ensure employee safety.

5.1. SDS requests. A request letter will be forwarded to any vender who does not provide an SDS with a product received by this company.

5.2. Hazardous Substances Inventory. ***H-J*** maintains an inventory of all known hazardous substances in use at the facility. A chemical inventory list is available from the Safety Department.

6. NON-COMPANY EMPLOYEES PROGRAM.

Visitors, Contract Employees, and Contractor Personnel. The SAFETY DEPARTMENT and/or Supervisor will advise visitors, contract employees, and contractor personnel of any chemical hazards that may be encountered in the normal course of their work on the premises, the labeling system in use, the protective measures to be taken, the safe handling procedures to be used, and availability of SDS's. Any contractor bringing chemicals on-site must provide ***H-J*** with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals.

7. TRADE SECRETS.

To protect trade secrets, the chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name, and other specific identification of a hazardous chemical, from the safety data sheet. To ensure the safety of our employees, ***H-J*** will obtain any information not shown on a SDS from a supplier, when such information is needed to determine the hazardous constituents of chemicals used within our facility or by our employees. ***H-J*** employees will not use a specific chemical if they cannot determine from the SDS (or other approved source) proper protective measures to be used.

8. NON-ROUTINE TASKS.

No employee will be allowed to perform tasks that they are not fully trained to accomplish. Non-routine tasks will be evaluated prior to beginning work and the related hazard assessed to develop protective measures.

9. CHEMICAL STORAGE.

H-J will ensure that proper storage locations are provided to employees using chemicals. Flammable chemicals will be stored in approved locations or flammable liquids cabinets designed in accordance with 29 CFR 1910.106. Toxic and corrosive chemicals will be stored apart from flammable chemicals and will be further segregated according to acidity and/or alkalinity. All chemical storage locations will be approved by the SAFETY DEPARTMENT before use.

Section 8—CHEMICAL MANAGEMENT

1. PURPOSE & SCOPE

1.1. Purpose: To protect the health and safety of ***H-J*** employees, contractors and visitors from injuries related to chemicals used and stored at ***H-J*** facilities, such as to prevent or minimize the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals that may result in fire or explosive hazards.

H-J has developed separate company standards for Fire Prevention and Protection, and Emergency Preparedness and Response, which are related to this standard.

1.2. Scope: This procedure applies to all ***H-J*** Facilities. Each facility is required to assess the laws and regulations applicable to their location and incorporate those requirements in addition to the requirements in this procedure. The facility is expected to meet the requirements of this standard if they are more stringent than the legal requirements.

1.3. Acceptable Equivalent Standards

This company standard is the minimum acceptable standard for ***H-J*** Facilities. The following standards are acceptable as equivalent unless a specific ***H-J*** requirement is significantly more protective than the standard listed:

1.3.1. OSHA 29 CFR 1910 Subpart H

1.4. Regulatory References

The following regulations or standards are applicable for the countries listed and should be referred to when developing site-specific procedures.

1.4.1. USA: 29 CFR 1910 Subpart H

2. TERMS & DEFINITIONS:

Note: Requirements associated with the definitions are provided in the remainder of this procedure.

2.1. Chemical: Any substance that may result in human or environmental exposure including solids, liquids and gases.

2.2. Chemical storage area: Any area where chemicals are stored, not for immediate use within the same shift. This includes storage rooms designed for bulk storage, chemical storage cabinets, and storage areas in the general facility. This does not include containers in use during the shift at workstations.

2.3. Corrosive: A reactive substance that causes obvious damage to living tissue or corrodes metals. Corrosives include acids and bases with a low or high pH, respectively.

2.4. Cryogen: A substance stored at very low temperatures, typically for purposes of easier storage or for producing very low temperatures in a process. They can be hazardous due to their temperature, but also due to rapid pressure increases, oxygen enrichment or oxygen displacement leading to asphyxiation.

2.5. Flammable: A material that is considered flammable for the purpose of this standard if it is capable of sustained combustion or burning when initiated by a spark, flame, or heat source. Examples include flammable liquids described below and gases or solids that are ignitable and capable of intense combustion.

2.5.1. Category 1 flammable liquids have flash points below 73.4°F (23°C) and boiling points at or below 95°F (35°C).

2.5.2. Category 2 flammable liquids have flashpoints below 73.4°F (23°C) and boiling points above 95°F (35°C).

2.5.3. Category 3 flammable liquids have flashpoints at or above 73.4°F (23°C) and at or below 140°F (60°C). When Category 3 flammable liquids with flash points at or above 100°F (37.8°C) are heated for use to within 30°F (16.7°C) of their flash point, they must be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100°F (37.8°C).

2.5.4. Category 4 flammable liquids have flash points above 140°F (60°C) and at or below 199.4°F (93°C). When Category 4 flammable liquids are heated for use to within 30°F (16.7°C) of their flash points, they must be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100°F (37.8°C).

2.5.5. In addition, when a liquid with a flash point greater than 199.4°F (93°C) is heated for use to within 30°F (16.7°C) of its flash point, it must be handled in accordance with the requirements for a Category 4 flammable liquid.

2.6. Flammable cabinet: A metal storage cabinet meeting the following specifications:

2.6.1. Bottom, top, and sides of cabinets must be at least No. 18 gauge sheet steel.

2.6.2. Cabinets must be double-walled with 1½-inch (38mm) airspace.

2.6.3. Joints must be riveted, welded, or made tight by some equally effective means.

2.6.4. Doors must have a three-point latch.

2.6.5. Door sills must be raised at least 2 inches (51mm) above the cabinet bottom to retain spilled liquid within the cabinet.

2.6.6. Cabinets must be labeled in conspicuous lettering “Flammable—Keep Fire Away.”

2.7. Highly Reactive: A substance is considered highly reactive if it is a peroxide forming chemical or is potentially explosive. These substances have the potential to react violently and uncontrollably.

2.8. Incompatible materials: Materials or chemicals that may interact or react in a manner which produces heat, smoke, gas or other potentially hazardous byproduct or consequence.

2.9. Oxidizer: A substance that will readily decompose under certain conditions to yield oxygen or react to promote or initiate the combustion of flammable or combustible materials.

2.10. Pyrophoric: A substance that is reactive with air and will spontaneously ignite upon contact with air.

2.11. Toxic: A substance that can cause serious health effects to people or the environment. For purposes of this standard, the substances listed at 29 CFR 1910.119 Appendix A or as defined by other relevant agencies to be toxic.

2.12. Water Reactive: A substance that reacts violently with water and may ignite or generate toxic, flammable or corrosive gases.

3. RESPONSIBILITIES:

3.1. Safety Department is responsible for:

3.1.1. Developing and maintaining this ***H-J*** Standard, supporting tools and materials.

3.1.2. Providing technical and regulatory interpretations and guidance for all aspects of this standard; advise any contract employer of any unique hazards that may be presented by ***H-J's*** work.

3.1.3. Implementing the requirements of this standard at all ***H-J*** facilities.

3.1.4. Assisting management with implementation of the program.

3.1.5. Ensuring proper training is in place for employees handling chemicals, such as, known potential for fire, explosion, or toxic release hazards related to their job duties, all other work practices necessary to safely perform their job, and what to do in case of an emergency.

3.1.6 Ensure that all accidents, injuries, near misses are thoroughly investigated, including root cause, corrective actions (to prevent the accident/exposure from reoccurring) and documenting the findings and corrective actions taken.

3.2. ***H-J*** Management is responsible for:

3.2.1. Participating in the development and implementation of this program to ensure it is effective and supported by employees.

3.2.2. Ensuring the necessary human and capital resources are provided to implement this standard and that personnel at the site adhere to the requirements.

3.3. Employees, Contractors, and Visitors are responsible for:

3.3.1. Complying with the requirements of this standard.

3.3.2. Informing the Safety Department of any hazards that are not adequately addressed in the workplace and of any other concerns regarding the program.

3.4. Employee supervisors are responsible for:

3.4.1. Supporting and assisting with the implementation of a chemical management program.

3.4.2. Ensuring employees under their supervision are provided with and use proper PPE.

4. REQUIREMENTS

4.1. Chemical Inventory

4.1.1. All chemicals on-site and on the chemical inventory must also have a Safety Data Sheet (SDS) available in the local language. SDSs must be available to all workers to ensure they understand the hazards and control measures for the chemicals they use or are exposed to.

4.2. Chemical Labeling

4.2.1. Manufacturer's Labels shall be present on a container, and the label shall be in accordance with GHS (Globally Harmonized System) requirements. See Hazard Communication for additional requirements.

4.2.2. Secondary Containers are required to be labeled with the contents and hazards. ***H-J*** uses the NFPA labeling system, blank labels are available in the Safety Department. If the label is no longer legible it must be replaced.

4.2.3. Secondary container labels are not required if the following criteria are met:

4.2.3.1. The material is used within the work shift of the individual who makes the transfer,

4.2.3.2. The worker who made the transfer is in the work area the entire time during use, and

4.2.3.3. The container stays within the work area and in the possession of the worker who filled the container.

4.3. Segregation of Chemicals

4.3.1. Segregate acids from bases.

4.3.2. Segregate inorganic oxidizing acids (e.g., nitric acid) from organic acids (e.g., acetic acid), flammables, and combustibles.

4.3.3. Segregate acids from chemicals that could generate toxic gases upon contact (e.g., sodium cyanide and iron sulfide).

4.3.4. Segregate acids from water reactive metals such as sodium, potassium, and magnesium.

4.3.5. Segregate toxics from other hazard classes and store in a cool, well-ventilated area, away from light and heat.

4.3.6. Segregate highly toxic chemicals from other hazard classes and store in an area that is cool, well ventilated, and away from light and heat.

4.3.7. Segregate oxidizers from flammable and combustible materials (paper, wood).

4.3.8. Segregate oxidizers from reducing agents (zinc, alkaline metals, formic acid).

4.3.9. Segregate inorganic oxidizers from organic peroxides.

4.3.10. Segregate incompatible gases as you would other incompatible chemicals.

4.3.11. Acceptable segregation methods depend on the types of chemicals stored, the quantities stored and the construction of the area used for storage. Possible considerations for segregation:

4.3.11.1. Physical distance,

4.3.11.2. Separate containment systems,

4.3.11.3. Physical barriers or walls, or

4.3.11.4. Fire-rated walls.

4.3.12. Common Incompatible Chemicals:

CHEMICAL	INCOMPATIBLE WITH:
Alkali Metals	calcium, potassium and sodium water, carbon dioxide, carbon tetrachloride, other chlorinated hydrocarbons
Acetic Acid	chromic acid, nitric acid, hydroxyl-containing compounds, ethylene glycol, perchloric acid, peroxides, permanganates
Acetone	concentrated sulfuric or nitric acid mixtures
Acetylene	copper (tubing), halogens, silver, mercury, and their compounds
Ammonia, Anhydrous	mercury, halogens, calcium hypochlorite, hydrogen fluoride
Ammonium Nitrate	acids, metal powders, flammable liquids, chlorates, nitrates, sulfur, finely divided organics, or combustibles
Aniline	nitric acid, hydrogen peroxide
Bromine	ammonia, acetylene, butadiene, butane, hydrogen, sodium carbide, turpentine, finely divided metals
Chlorates	ammonium salts, acids, metal powders, sulfur, carbon, finely divided organics, combustibles
Chromic Acid	acetic acid, naphthalene, camphor, alcohol, glycerin, turpentine, other flammable liquids, or combustible materials
Chlorine	ammonia, acetylene, butadiene, benzene, other petroleum fractions, hydrogen, sodium carbide, turpentine, finely divided powdered metals
Cyanides	Acids
Hydrogen Peroxide	copper, chromium, iron, most metals or their respective salts, flammable liquids or combustible materials, aniline, nitro-methane
Hydrogen Sulfide	nitric acid, oxidizing gases
Hydrocarbons	halogens, chromic acid, sodium peroxide
Iodine	acetylene, ammonia, chlorine
Mercury	acetylene, ammonia, lithium
Nitric Acid	acetic, chromic, and hydrocyanic acids, aniline, carbon, hydrogen sulfide, flammable material, readily nitrated substances
Oxygen	oils, grease, hydrogen, flammable materials
Oxalic Acid	silver, mercury, chlorites, strong oxidizers
Perchloric Acid	acetic anhydride, bismuth and its alloys, alcohol, paper, wood, other organic materials
Potassium Permanganate	glycerin, ethylene glycol, benzaldehyde, sulfuric acid
Sodium Peroxide	any oxidizable substances
Sulfuric Acid	chlorates, perchlorates, permanganates

4.4. Basic Storage Requirements

4.4.1. Chemical containers must be in good condition and not leaking. Good condition means:

4.4.1.1. Non-leaking

4.4.1.2. No visible damage which could compromise container strength

4.4.1.3. No signs of physical deterioration including rust or oxidation.

4.4.2. Chemical containers must be compatible with the contents of the container.

4.4.3. Chemicals must not be used or stored in food or beverage containers, even for short durations, as this presents an unacceptable risk.

4.5. Combustible and Flammable Materials

4.5.1. Keep trash in metal-lined receptacles with tight-fitting covers (metal wastebaskets that are emptied every day do not need to be covered).

4.5.2. Keep work areas clean and free of fuel paths that could allow a fire to spread.

4.5.3. Keep combustibles away from ignition sources or other heat- or spark-producing devices.

4.5.4. Store paper stock in metal cabinets.

4.5.5. Store rags in metal bins with self-closing lids.

4.5.6. Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).

4.5.7. Do not dispense flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire. Either the tank or container shall be grounded and constructed of conducting material.

4.5.8. Store, handle, and use flammable and combustible liquids only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.

4.5.9. Areas designated for dispensing of flammable liquids should have suitably rated electrical equipment in the required radius.

4.5.10. Do not use flammable or combustible liquids as cleaning agents unless they are specifically manufactured for this purpose (e.g., flammable degreasing agents or paint cleaning solvents are acceptable).

4.5.11. Do not use or store flammables or combustibles near exits, stairs, or any other areas normally used as exits unless in flammable storage cabinets.

4.5.12. Do not weld, cut, grind, or use unsafe electrical appliances or equipment near flammable or combustible materials.

4.5.13. Do not generate heat, allow an open flame, or smoke near flammable or combustible liquids.

4.6. Compressed Gases

4.6.1. Compressed gas storage and use requirements are covered in a separate standard, Compressed Gas Safety.

4.7. Corrosives

4.7.1. Use tight-fitting goggles, gloves, and closed-toe shoes while handling corrosives.

4.7.2. Store solutions of inorganic hydroxides in polyethylene containers.

4.7.3. Store corrosives on lower shelves, below eye level and in compatible secondary containers.

4.7.4. Do not store corrosives on metal shelves. Although ventilation helps, chemicals will still corrode the shelves.

4.7.5. Store containers in plastic tubs or trays as secondary containment.

4.7.6. If you notice powder deposits, discoloration, and crystallization around the cap of a container, particularly an oxidizing acid, contact the Safety Department immediately. The material may be potentially explosive.

4.7.7. Have spill control pillows or neutralizing agents available in case of a spill. These may be purchased from safety supply companies.

4.7.8. Emergency eyewash and shower facilities must be within the immediate work area where employees are exposed to corrosive materials.

4.8. Cryogens

4.8.1. Store and handle in a well-ventilated area. When liquid cryogens are converted to the gaseous phase, they may create an oxygen deficiency. Do not use cryogens in small, enclosed spaces.

4.8.2. Use only approved storage vessels (i.e., thermos-like evacuated, double-walled containers) with pressure relief mechanisms. Non-approved vessels may explode.

4.8.3. Secure containers so they will not tip over or obstruct an aisle, hallway, or corridor during an earthquake.

4.8.4. Liquid nitrogen and liquid helium are capable of liquefying oxygen from air. This form of oxygen enrichment can become a strong fire or explosion hazard.

4.8.5. Use appropriate protective equipment for handling cryogens: insulated holders for carrying vessels; eye protection, goggles, or face shields; and aprons. Use cryogenic gloves or leather gloves when handling super cold surfaces.

4.9. Highly Reactive Chemicals

4.9.1. Highly reactive chemicals must be tracked with an opening date and a discard date recorded on the container to reduce the likelihood of explosion. The discard date should be determined based on the chemical manufacturer recommendation.

4.9.2. Highly reactive chemicals must be stored away from all ignition sources, including direct sunlight.

4.9.3. Never open or test containers or unknown age or origin. Also, never handle or open any container with crystalline buildup around the lid that may contain a highly reactive or explosive chemical.

4.10. Oxidizers

4.10.1. Take care not to contaminate oxidizers. Some oxidizers, such as perchloric acid, can become explosive mixtures if contaminated with trace amounts of organic materials or metals.

4.10.2. Store in a cool, dry place. Do not store under a sink.

4.10.3. Remember that perchloric acid, nitric acid, and hydrogen peroxide are oxidizers and must not be stored on wooden shelves or in cardboard boxes.

4.11. Pyrophoric

4.11.1. Store in a cool, dry place. Prevent contact with air.

4.11.2. Take extreme care to prevent containers of pyrophoric from leaking or breaking. The use of corrosion and shatter resistant secondary containers for storage and transportation of pyrophoric reagent bottles is encouraged.

4.11.3. Many pyrophoric are also water reactive.

4.12. Toxics

4.12.1. Containers should be tightly sealed to minimize exposure to personnel and contamination of other chemicals.

4.12.2. Use highly toxic chemicals in a designated area or laboratory setting. Highly toxic chemicals that produce fumes or dust should always be handled within a chemical fume hood.

4.12.3. Containers should be tightly sealed to minimize exposure to personnel and avoid contamination from other chemicals.

4.12.4. Do not eat, drink, or apply cosmetics where highly toxic chemicals are handled.

4.13. Water Reactive

4.13.1. Store in a cool, dry place. Do not store under a sink.

4.13.2. Keep away from water. In case of fire, do not use water. Use a dry chemical extinguisher.

5. TRAINING

5.1. Employees shall be trained in the Chemical Storage practices, Spills, and requirements for the chemicals they may be exposed to. Training shall occur at the beginning of their employment and annually thereafter.

6. Reporting Spills

6.1 All Spills, regardless of amount must be reported to their Supervisor and/or Safety Department immediately. Supervisors will follow the Spill Procedures according to chemical type.

7. RECORD RETENTION

7.1. Training records shall be retained for at least three years.

7.2. Chemical inventories shall be maintained for at least five years.

Section 9—Fire Prevention Program

1. PURPOSE:

Fire Prevention/Protection Policy is intended to provide compliance with all related OSHA regulation and standard safe work practice. The purpose of the policy is to prevent fires and to provide guidelines for action in the event that a fire does occur.

Fire prevention program combines the following policies:

- Hazzard Communication (HazCom) Training Policy
- Personal Protection Equipment (PPE) Policy
- Electrical Safety Policy
- Emergency Action Plan

These policies encompass methods used for incidence avoidance, incident response and specialized training required in the event of a fire.

Issues addressed in the above policies include, but are not limited to:

- Evacuation Procedure
- Extinguisher Training
- Basic Process Safety Training (if applicable)
- Hot Work Safety Training (if applicable)
- Confined Space Entry Safety Training (if applicable)
- Emergency Life Support Training
- Respiratory Protective Devices Training (if applicable)

2. POLICY:

H-J Employees shall be informed of the proper actions to take in the event of a fire. This includes, but is not limited to, notification and evacuation procedures. It is STRESSED that at no time does the task of fighting fire supersede an employee's primary duties of:

- Ensuring their own personal safety and the safety of others.
- Reporting the incident to the proper authority and ensuring personnel accountability for yourself and all subordinates at ALL ***H-J*** Facilities, in accordance with company policy.

3. TRAINING

- ALL ***H-J*** Employees shall complete Fire Prevention Training at the beginning of their employment and annually thereafter.
- Fire Prevention Training shall include but not be limited to the following items.
  - Overview of the requirements of this standard.
  - Recognition of potential fire hazards.
  - Good housekeeping practices.
  - Responsibilities during a fire.
  - Instruction on the use of portable fire extinguishers.
  - If workers will be expected to use fire extinguishers, then a hands-on training must be performed to ensure workers are trained and comfortable with the use of extinguishers.

4. PROCEDURE:

- All employees are responsible for good housekeeping practices to enhance fire prevention methods. Supervisors will be held accountable for the housekeeping of their departments.
- Only approved containers will be used during fueling operations. These shall be of the self-closing type.
- Flammable material shall be kept under the control. It shall be stored in compliance with applicable OSHA and ***H-J*** regulations.
- Welding, cutting and grinding sparks shall be contained.
- Hot work areas shall be kept wetted down, and a fire extinguisher and hose maintained on each site.
- Oily rags shall be immediately disposed of in designated hazardous waste containers.
- No hot work is to be performed without a Hot Work Permit.
- Use bonding straps to discharge and prevent static charges during transfer of flammable liquids from one container to another.
- Report all spills or suspicious odors immediately.
- Fire extinguishers are to be kept in areas easily accessible to employees. Only approved fire extinguishers are to be used. They must have an Up-to-Date Inspection Tag attached. Extinguishers are to be maintained in a fully charged, ready to operate state. Extinguishers are to be inspected MONTHLY and documented on the back side of the Annual Inspection Tag. Training is provided to all employees who use or may use fire extinguishers.
- NEVER put yourself or others at risk while attempting to extinguish an incipient fire.
- **NEVER** attempt to extinguish a pressurized fuel fed fire.

- **DO NOT** direct a fire nozzle with a straight stream at any type of LPG fire. This action could extinguish the fire, producing an LPG vapor cloud capable of detonation.
- **DO NOT APPLY** water to any acid or caustic release as it can cause a violent reaction. Additionally, low concentration acids or caustics become extremely corrosive, causing an increasing leak condition.

5. **IN THE EVENT OF A FIRE:**
   - Remain calm.
   - Only extinguish a fire when it is clearly within your abilities and the equipment available.
   - Know how to activate the emergency system.
   - Know the evacuation routes and Emergency Meeting Points
   - If the fire cannot be extinguished, leave the area immediately and report to your evacuation area.
   - Await further instructions from your Supervisor, Safety Department, or designated responsible personnel.

6. **BASIC FIRE SCIENCE:**

   The combination of fuel, heat, oxygen equals the well-known fire triangle. To understand fire better, a fourth factor is added, a molecular chain reaction. This is due to the fact that fire results from a series of reactions in which complicated molecules "crack" into easily oxidized fragments. Disruption of this chain, along with the removal of fuel, heat or oxygen, is recognized as a method of fire extinguishment through the use of dry chemical extinguishers.

- **Heat Energy** - Can be produced by building up molecules (composition) or breaking apart (decomposition) by heat or a solution when materials are dissolved in a liquid, or by combustion.
- **Heat Transfer** - A law of physics states that heat tends to flow up from a hot substance or place to a cold substance or place. This is through conduction (transfer of heat through a medium such as metals) or through convection (transfer of heat with a medium-usually circulatory).
- **Fuels** - Those substances that will burn when heat is applied. The most common fuels are not pure elements such as carbon, but compounds and mixtures such as paper and wood.
- **Oxygen** - Makes up a major portion of the oceans and earth's crust and one-fifth of our atmosphere. Atmospheric oxygen is the major source of oxygen that supports combustion. Oxygen itself does not burn, however, without it, combustion is impossible. Normal burning is the combination of fuels with oxygen under the influence of heat.
- **Combustion** - A rapid oxidation or chemical combination accompanied by heat.
- **Oxidation** - The ability of materials to produce oxygen during a chemical reaction.
- **Spontaneous Combustion** - When oxidation is allowed to occur, enough oxygen is available, heat is produced, molecules become more energetic and combine with oxygen at an increasing rate, temperatures rise, and visible heat (flames) are produced.

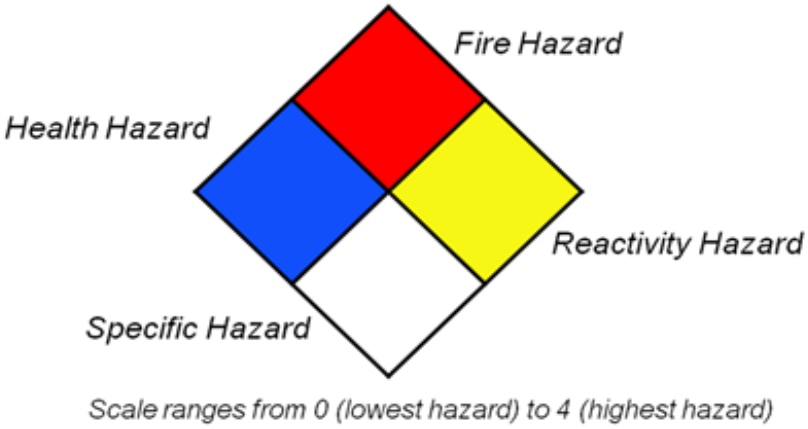
CLASSES OF FIRES:

- Class A - **Ordinary combustibles (wood/paper/textiles)**
- Class B - **Flammable liquids (gasoline/oils/grease)**
- Class C - **Live electric (wiring/generators/motors)**
- Class D - **Combustible metals (finely divided form/chips, turnings)**

TYPES OF FIRE EXTINGUISHERS:

- **Water** - extinguisher for ordinary combustible fires
- **Dry Chemical or CO2** - extinguisher for electrical equipment fires and for flammable liquid fires
- **Multipurpose Dry Chemical** - extinguisher for ordinary combustible fires, liquid fires, and electrical equipment fires
- **Foam** - extinguishing agent for hydrocarbon fires

NFPA Diamond:



Section 10—Powered Industrial Truck Program

1. PROGRAM REQUIREMENTS.

H-J will ensure that the requirements of the OSHA Standard for powered industrial trucks will be adhered to. This program is intended to address the issues of employee training, authorization, safety requirements, fire protection, maintenance, and general operation of fork trucks, platform lift trucks, and other specialized industrial trucks used within ***H-J*** facilities. This program will be maintained in accordance with OSHA Regulations OSHA 29 CFR 1910.178. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY.

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received the proper awareness training or operator training for the specific powered industrial truck they may be expected to operate.

3. TRAINING REQUIREMENTS.

3.1. Operator training. Only trained and authorized operators will be permitted to operate a powered industrial truck. All operator training and evaluations will be conducted by the SAFETY DEPARTMENT or designated persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence. Employees will be trained in accordance with the following guidelines:

3.1.1. The Safety Department, individual supervisor, or select trainers (once trained) will have the authority to provide training on the operation of powered industrial trucks.

3.1.2. Employees of ***H-J*** will not operate a powered industrial truck (PIT) unless they have received training in accordance with this program and 29 CFR 1910.178.

3.1.3. Personnel rotated within the company will have their training verified prior to being allowed to operate a PIT.

3.1.4. Employee personnel records will be annotated with the date, title, and specifics of said training.

3.1.5. Any employee who refuses such training will not be permitted to operate a PIT.

3.2. Trainees may operate a powered industrial truck only:

3.2.1. Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and

3.2.2. Where such operation does not endanger the trainee or other employees.

3.3. Retraining and refresher training will be provided for all operators. Retraining will reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

3.3.1. The operator has been observed to operate the vehicle in an unsafe manner;

3.3.2. The operator has been involved in an accident or near-miss incident;

3.3.3. The operator has received an evaluation that reveals that the operator is not operating the truck safely;

3.3.4. The operator is assigned to drive a different type of truck; or

3.3.5. A condition in the workplace changes in a manner that could affect safe operation of the truck.

3.3.6. Every three years.

3.4. Avoidance of duplicative training. If an operator has previously received training in a topic specified in paragraph 29 CFR 1910.178, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

3.5. Certification. ***H-J*** will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training and any other information as required.

4. GENERAL REQUIREMENTS.

4.1. Trucks will not be driven up to anyone standing in front of a fixed object.

4.2. No person will be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

4.3. Unauthorized personnel will not be permitted to ride on powered industrial trucks. A safe place to ride will be provided where riding trucks is authorized.

4.4. Arms or legs are prohibited from being placed between the uprights of the mast or outside the running lines of the truck.

4.5. When a powered industrial truck is left unattended, load-engaging means will be fully lowered, controls will be neutralized, power shut off, and brakes set. Wheels will be blocked if the truck is parked on an incline.

4.5.1. A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle, which remains in his view, or whenever the operator leaves the vehicle, and it is not in his view.

4.5.2. When the operator is dismounted and within 25 ft. of the truck still in his view, the load engaging means will be fully lowered, controls neutralized, and the brakes set to prevent movement.

4.6. A safe distance will be maintained from the edge of ramps or platforms while on any elevated dock, platform, or freight car. Trucks will not be used for opening or closing freight doors.

4.7. Brakes will be set and wheel blocks in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semi-trailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars will be checked for breaks and weakness before they are driven onto.

4.8. The operator will ensure sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc. before operating the vehicle in these areas.

4.9. An overhead guard will be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small objects representative of the job application, but not to withstand the impact of a falling capacity load.

4.10. Whenever a truck is equipped with vertical only, or vertical and horizontal controls elevatable with the lifting carriage or forks for lifting personnel, the following additional precautions will be taken for the protection of personnel being elevated.

4.10.1. Use of a safety platform firmly secured to the lifting carriage and/or forks.

4.10.2. Means will be provided whereby personnel on the platform can shut off power to the truck.

4.10.3. Such protection from falling objects, as indicated necessary by the operating conditions would be provided.

4.11. Fire aisles, access to stairways, and fire equipment will not be obstructed at any time.

4.12. Operators.

4.12.1. Will obey ***H-J*** Facilities speeds and other traffic regulations at all times.

4.12.2. Will operate loaded trucks with forks no more than 6-8 inches above the ground, with the load carried low and tilted back.

4.12.3. Will not raise or lower loads while moving.

4.12.4. Will not carry anything on the overhead guard.

4.12.5. Will use all plant/site observation mirrors

4.12.6. Will ensure vehicle sound/illuminated warning devices are operational.

4.12.7. Will yield right of way to pedestrians, emergency vehicles, and avoid pedestrian lanes.

4.12.8. Will drive cautiously on uneven or slippery surfaces.

4.12.9. Will ensure the load is pointed uphill where the gradient is greater than 10 percent.

5. PRE-START REQUIREMENTS.

Powered Industrial Truck operators will follow these minimum guidelines.

5.1. Will verify that all brakes, controls, gauges, lights, seat belts, and routine operational features are in proper working order. They will be examined before and after each shift. Defects when found will be immediately reported and corrected.

5.2. Will remove the truck from service any time it is found to be in need of repair, defective, or in any way unsafe, the truck will be taken out of service until it has been restored to safe operating condition.

5.3. Will check for leaks and perform necessary operator maintenance before starting vehicle.

5.4. Will report deficiencies to their Supervisor or the Safety Department.

5.5. Will ensure they know the load capacity and stay within it.

5.6. Will be aware of the planned route and aware of areas with inadequate headroom, lighting, obstructions, and floor surface problems.

5.7. Will wear the same level of personal protective equipment as the personnel they are directly working with.

5.8. Will not engage in stunt driving or horseplay.

5.9. Will slow down for wet and slippery floors.

5.10. Will properly secure dock board or bridge plates before they are driven over. Dock board or bridge plates will be driven over carefully and slowly, and their rated capacity never exceeded.

5.11. Will approach any elevators slowly, and then enter squarely after the elevator car is properly leveled. Once on the elevator, the controls will be neutralized, power shut off, and the brakes set until the desired level is reached.

5.12. Motorized hand trucks must enter elevators or other confined areas with load end forward.

5.13. Running over loose objects on the roadway surface will be avoided.

5.14. While negotiating turns, speed will be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel will be turned at a moderate, even rate.

5.15. Will use extreme care tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated will be prohibited except to pick up a load. An elevated load will not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load will be used.

6. LOADING/UNLOADING REQUIREMENTS.

Operators must follow these minimum requirements.

6.1. Will ensure the load is within the truck's rated capacity.

6.2. Will place load squarely on forks until load touches carriage.

6.3. Will ensure load is stable and centered on forks, and stack or tie loose or uneven loads (or ensure proper personnel accomplish this prior to loading).

6.4. Will secure the vehicle when not in use to prevent unauthorized personnel from operating the vehicle.

6.5. Will tilt the mast back to lift load.

6.6. Will proceed straight into trailers or railcars to load/unload.

6.7. Will ensure if loading/unloading onto trucks that the wheels are choked, brakes are engaged, and loading platform is positioned properly.

6.8. Will ensure if loading/unloading onto or from racks the proper safe weight or height-to-load ratio is maintained.

6.9. Will ensure if loading/unloading onto or from stacked materials the proper safe weight or height-to-load ratio is maintained.

7. PARKING REQUIREMENTS.

When parking, operators must follow these minimum requirements.

7.1. Must select flat parking surfaces, away from traffic where the vehicle does not block doors, pedestrian routes, aisles, exits, etc.

7.2. Must not leave a truck unattended or be more than 25 feet from the vehicle without:

7.2.1. Fully lowering load-engaging means, neutralizing controls, shutting off power, setting the brakes, and removing the keys.

7.2.2. Blocking the wheels if parked on an incline.

8. REFUELING REQUIREMENTS.

8.1. Refuel only in assigned, ventilated areas containing no ignition sources.

8.2. Turn off engine.

8.3. Have fire suppression and cleanup equipment available.

8.4. Extinguish smoking materials.

8.5. Use acid-resistant material-handling equipment and wear corrosion-resistant PPE during battery charging/changing.

8.5.1. Remove battery caps slowly and leave open.

8.5.2. Pour acid into water, not water into acid.

8.5.3. Follow the vehicle manufacturer's instructions for gas or propane fueling.

8.5.4. Never use open flame to check fuel level.

8.5.5. Try to prevent spills, clean any spills promptly, replace fuel cap before starting or moving vehicle.

8.5.6. Store empty propane tanks in the designated container disposal/storage area located at the facility.

8.6. Spilled electrolyte. Facilities will be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.

8.7. Battery maintenance requirements. Reinstalled batteries will be properly positioned and secured in the truck. A carboy tilter or siphon will be provided for handling electrolyte. When charging batteries, acid will be poured into water; water will not be poured into acid. Trucks will be properly positioned, and brakes applied before attempting to change or charge batteries. Care will be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) will be open to dissipate heat. Smoking will be prohibited in the charging area. Precautions will be taken to prevent open flames, sparks, or electric arcs in battery charging areas. Tools and other metallic objects will be kept away from the top of uncovered batteries.

9. MODIFICATIONS/LABELS.

9.1. No modifications or additions, which affect capacity and safe operation, will be performed without the manufacturer's prior written approval. Capacity, operation, maintenance instruction plates, tags, or decals will be changed accordingly.

9.2. If the truck is equipped with front-end attachments other than factory-installed attachments, the truck will be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered.

9.3. All nameplates and markings will be verified as being in place and maintained in a legible condition.

9.4. The SAFETY DEPARTMENT will maintain records of inspections of machinery, tools, and equipment. Records will be kept in the Safety Department office. Additionally, the Safety Department will maintain records in employee safety files of individuals trained and certified for equipment and tools.

Section 11—Overhead Crane & Hoist Safety

1. Purpose

1.1. To protect personnel from the hazards of working with and around overhead cranes, gantry cranes, and hoists and to establish inspection requirements.

2. Scope

2.1. This policy applies to all ***H-J*** personnel involved with working with and around overhead cranes, gantry cranes, and hoists.

3. Definitions

3.1. Crane - a machine for lifting and lowering a load and moving it horizontally, with the hoisting mechanism an integral part of the machine. Cranes, whether fixed or mobile are driven manually or by power.
3.2. Designated Person – person selected or assigned by the employer as being qualified to perform specific duties.
3.3. Gantry Crane - a crane similar to an overhead crane except that the bridge for carrying the trolley or trolleys is rigidly supported on two or more legs running on fixed rails or other runway. (Appendix A)
3.4. Hoist - an apparatus which may be a part of a crane, exerting a force for lifting or lowering.
3.5. Overhead Crane - a crane with a movable bridge carrying a movable or fixed hoisting mechanism and traveling on an overhead fixed runway structure.
3.6. Pendant – control suspended from an electric hoist.
3.7. Rated Load - the maximum load for which a crane or individual hoist is designed and built by the manufacturer and shown on the equipment nameplate(s).
3.8. Reeving – to pass (a rope or similar item) through a hole, ring, or similar item.
3.9. Sling - an assembly which connects the load to the material handling equipment. (Appendix A)
3.10. Trolley - the unit which travels on the bridge rails and carries the hoisting mechanism.

4. Responsibilities

4.1. ***H-J*** Safety Department shall:
  4.1.1. Maintain this written program to meet regulatory requirements and ensure it is current.
  4.1.2. Provide technical and program assistance to ensure the program is successfully implemented.
  4.1.3. Provide crane, hoist and lifting equipment awareness level training.
  4.1.4. Audit and revise the written Overhead Cranes, Gantry Cranes and Hoists procedure, as necessary.
4.2. Department Supervisors shall:
  4.2.1. Ensure designated operators receive proper training.

4.2.2. Ensure cranes, hoists and slings are maintained in proper working order and repaired when necessary.
4.2.3. Ensure cranes, hoists and slings are used in a safe manner.
4.2.4. Ensure scheduled inspections and testing are conducted in accordance with manufacturer recommendations and applicable regulations.

4.3. Authorized Maintenance crane/hoist shall:
4.3.1. Oversee the installation of all cranes and hoists.
4.3.2. Conduct inspections and maintenance of cranes, hoists, and lifting equipment/hooks in accordance with manufacturer recommendations and applicable regulations. Report defects promptly to their supervisor so corrections can be made.

5. Design Requirements

5.1. All cranes and hoists shall be installed according to the manufacturer's specifications and applicable regulations.
5.2. Cranes and hoists may be modified or re-rated at any time as long as the modifications and associated structure is analyzed and approved by a qualified engineer or the crane manufacturer.
5.3. The rated load capacity of the crane and/or hoist and the associated structure shall be plainly marked on each side of the crane and be visible from the floor in a conspicuous location.

6. General Requirements

6.1. Cranes and hoists shall only be operated by the following designated personnel:
6.1.1. Trained operators.
6.1.2. Trainees under the direct supervision of a designated person.
6.1.3. Authorized maintenance and/or contractors completing maintenance and/or repairs.
6.2. The crane controller shall be located within convenient reach of the operator.
6.3. The trolley travel control shall be located so that the operator can readily face the direction of travel.
6.4. Push buttons shall automatically return to the "off" position when released by the operator.
6.5. Suspended loads shall be kept clear of all obstructions.
6.6. All employees shall be kept clear of loads about to be lifted and of suspended loads.
6.7. All hooks shall be equipped with a safety latch.
6.8. Slings
6.8.1. Slings that are damaged or defective shall not be used.
6.8.2. Slings shall not be shortened or lengthened by knotting or twisting.
6.8.3. Sling legs shall not be kinked.
6.8.4. Slings used in a basket hitch shall have the loads balanced to prevent slippage.
6.8.5. Slings shall be securely attached to their loads.
6.8.6. Slings that may come into contact with edges, corners, or protrusions shall be protected with a material of sufficient strength, thickness, and construction to prevent damage.
6.8.7. A sling shall not be pulled from under a load when the load is resting on the sling.
6.8.8. Slings shall not be loaded in excess of their recommended safe working load as prescribed by the sling manufacturer on the identification markings permanently affixed to the sling.
6.8.9. Slings without affixed and legible identification markings shall not be used.

7. Crane Operation Requirements

7.1. Pre-use inspection – At the start of each work shift (on a day when the overhead crane will be used), operators shall complete a pre-use inspection form.

7.2. Rigging a load – When attaching a load to a crane, the following safety requirements shall be followed:

- 7.2.1. Determine the appropriate size and number of slings and associated components.
- 7.2.2. Pad sharp edges on loads being lifted/lowered to prevent wear on slings.
- 7.2.3. Ensure slings and hooks are in proper working condition with no excessive wear.
- 7.2.4. Determine the load's center of gravity and ensure rigging maintains the load in a level position during movement.
- 7.2.5. Once slings are in place, lift the load slightly to test the rigging and balance. Re-work the rigging if necessary.
- 7.2.6. Use a tag line when loads must traverse long distances or be otherwise controlled.

7.3. Lifting and lowering a load – During equipment moving operations the following safety requirements shall be followed:

- 7.3.1. Only designated personnel may operate a crane.
- 7.3.2. Ease the load up/down to prevent shock load on the crane. Shock load can occur when a suspended load is accelerated/decelerated quickly.
- 7.3.3. Lift loads only high enough to clear the tallest obstruction in the travel path.
- 7.3.4. Employees shall not be on the load when the load is being hoisted, lowered, or is traveling.
- 7.3.5. Employees shall stand clear of all overhead loads. Employees shall not pass under a suspended load.
- 7.3.6. Operators shall not carry loads over employees and shall ensure that the area of travel remains clear at all times during travel.
- 7.3.7. Never leave suspended loads unattended. In an emergency, if a load must remain suspended, ensure the area is clearly marked with signage and blocked on all four sides to prevent unauthorized access.

7.4. Parking a crane/hoist – Once loads are moved and the crane is out of operation for the shift, it shall be properly parked.

- 7.4.1. Remove all slings and accessories from the hook and return rigging devices to designated storage locations.
- 7.4.2. Raise the hook at least 7 feet above the floor.
- 7.4.3. Store the pendant away from aisles and work areas or raise it at least 7 feet above the floor.
- 7.4.4. Place the emergency stop switch in the off position and place the controller in designated storage location to prevent unauthorized use.

7.5. Signal Persons

- 7.5.1. A signal person must be used if any of the following conditions exist:
  - 7.5.1.1. The load travel pathway or the area near or at load placement is not in full view of the operator.
  - 7.5.1.2. View of the travel pathway is obstructed.
  - 7.5.1.3. The operator or the person handling the load determines that it is necessary due to site specific safety concerns.

7.6. All signal persons shall wear appropriate eye, foot and hand protection.
    7.6.1. Standard hand signals (Appendix B) shall be used by the signal person unless voice communication (e.g., telephone, radio, or equivalent) is utilized for lifts.
    7.6.2. Special operations may require additions or modifications to standard signals. They shall be agreed upon and understood by the signal person and the operator.
7.7. All communications shall be discernible or audible to the operator.

8. Inspections

8.1. Initial Inspection: New, repaired, or modified cranes and hoists shall be inspected by a qualified person prior to initial use in accordance with Periodic Inspection as described in Section 8.3.
8.2. Pre-use Inspection:
    8.2.1. Shall be conducted before each shift or each use, whichever occurs first.
    8.2.2. Hazards identified during a pre-use inspection shall be reported immediately.
8.3. Periodic Inspection:
    8.3.1. A documented inspection that includes observations of crane and hoist operation.
    8.3.2. A documented inspection that includes the observations of alloy steel chain slings.
    8.3.3. Shall be performed by an authorized maintenance and/or contractor.
    8.3.4. Shall be performed annually unless otherwise determined by the authorized contractor performing maintenance or manufacturer's recommendations.
8.4. Inspections for Returning an Idle Crane to Service
    8.4.1. If a crane or hoist is idle for a period of 1 to 6 months, a documented pre-use inspection shall be performed on the crane before it is placed back in service.
    8.4.2. If a crane or hoist is idle for a period of over 6 months, a documented periodic inspection shall be performed on the crane before it is placed back in service.

9. Maintenance

9.1. A preventative maintenance program based on the crane manufacturer's recommendations shall be established.
9.2. Prior to maintenance beginning:
    9.2.1. The crane shall be run to a location where it will limit or prevent interference with surrounding operations and any cranes that may be located in the area.
    9.2.2. All controllers shall be switched to the off position. The main or emergency switch shall be locked in the open position in accordance with the University's Lock, Tag, Try procedure.
    9.2.3. Warning or "out of order" signs shall be posted on the crane and hook where it is visible from the floor.
9.3. Any unsafe conditions identified during pre-use and/or periodic inspections shall be corrected prior to resuming crane operation. Only authorized contractors shall make any adjustments or repairs.

10. Personal Protective Equipment

10.1. All persons working in proximity to a crane or hoist shall wear personal protective equipment in accordance with their completed PPE Hazard Assessment.

11. Training

11.1. Only designated, trained persons are permitted to operate a crane.

11.2. Trainees may only operate a crane/hoist under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence and where such operation does not endanger the trainee or other employees.
11.3. The trainee shall be provided sufficient practical training exercises and time under the direct supervision of a qualified trainer/mentor.
11.4. At a minimum, training shall include:
    11.4.1. Classroom/online training including:
        11.4.1.1. General crane safety
        11.4.1.2. Crane inspections
        11.4.1.3. Attaching, raising, lowering, and moving loads
    11.4.2. Hands-on training: Operators shall be trained to safely operate the specific make and model(s) of crane they will be operating. Training shall include the following:
        11.4.2.1. Crane controls
        11.4.2.2. Appropriate slings to use with loads
        11.4.2.3. Handling instructions detailed by the manufacturer
        11.4.2.4. Hand signals used while operating the crane
    11.4.3. Written examination: Both the classroom and hands-on training shall be validated by an examination process.
    11.4.4. Classroom/online training shall be valid for **two (2) years**. ***H-J*** feels usually within a two-year time period we find one of the following has happened:
        - Staff or conditions in the work area have changed,
        - Equipment or machines have been upgraded/changed, or
        - Bad habits have developed.

11.5. Refresher training in relevant topics shall be conducted under the following circumstances:
    11.5.1. The operator has been observed operating a crane or hoist in an unsafe manner.
    11.5.2. The operator/signal person has been involved in an accident or near-miss incident.
    11.5.3. The signal person has been observed displaying a lack of understanding of the hand signals.
    11.5.4. Changes to workplace conditions affecting the safe operation of the crane or hoist.
11.6. Instructors and qualified trainers shall be knowledgeable of equipment operation, inspection procedures, basic maintenance, and applicable OSHA standards.

12. Record Retention

12.1. Records required by this procedure shall be retained by ***H-J's*** Safety Department. This includes:
    12.1.1. Pre-use inspection documents.
    12.1.2. Periodic inspection documents.
    12.1.3. All maintenance records.

13. Procedure Evaluation

13.1. ***H-J*** shall conduct a documented audit of the Overhead Cranes, Gantry Cranes, and Hoists program once every three years.
13.2. The audit shall include:

13.2.1. Review of crane/hoist inspection records,
13.2.2. Verification that procedures are appropriate, understood, and implemented.
13.2.3. Review of cranes and hoists maintenance records.
13.3. Revisions to the program or training process shall be made as a result of the audit, as necessary.

14. Resources

14.1. The Occupational Safety and Health Administration, 29 CFR 1910.179. *Overhead and Gantry Cranes*.
14.2. The Occupational Safety and Health Administration, 29 CFR 1926.1419. *Signal-General Requirements.*
14.3. The Occupational Safety and Health Administration, 29 CFR 1910.184. *Slings.*

Section 12—Stairway and Ladder Safety Program

1. PROGRAM REQUIREMENTS

H-J will ensure that all potential hazards regarding Stairways and Ladders within at our Facility are evaluated and communicated to employees. This program will be maintained in accordance with OSHA Regulations 29 CFR 1910.24 -.27. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY

The SAFETY Department is the program coordinator, acting as the representative of the company owners, who have the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received training before assignment to work.

3. TRAINING REQUIREMENTS

H-J will provide training to ensure that the purpose, function, and proper use of ladders and stairs is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees.

3.1. Training will be conducted by the SAFETY DEPARTMENT or other designated competent personnel. The program will include but will not be limited to:

3.1.1. Recognition and description of ladder/stair hazards in the work area.

3.1.2. Types of ladder/stairs appropriate for use and their safe operation and use.

3.2. Certification. ***H-J*** will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training.

3.3. Refresher Training. The training content will be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner.

3.3.1. Refresher training will be provided for all affected employees whenever (and prior to) a change in their job assignments, a change in the type of equipment used, or when a known hazard is added to the work environment which affects this program.

3.3.2. Additional training will also be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of these procedures.

3.3.3. The retraining will reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.

3.4. Certification. ***H-J*** will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training.

4. STAIR SAFETY

4.1. All stairways will be kept clean, orderly, and free of known hazards.

4.2. Cleaning requirements. To facilitate cleaning, all stairways will be kept free from protruding nails, splinters, holes, or loose boards or other hindrances that would prevent efficient use and maintenance.

4.3. Stairways leading to work areas will be maintained in a clean, and so far as possible, dry condition.

4.4. Stairways leading to emergency exit doors will be always kept free of obstacles. Any employee finding an emergency route blocked should immediately report the condition to the Supervisor for correction. Exit lights and signs will also be always maintained in proper condition, and immediately reported if deficient.

4.5. Illumination. Sufficient illumination will be always provided in all areas, especially where stairways and ladders are in use.

4.6. Stair treads. All treads will be reasonably slip-resistant, and the nosing's will be of nonslip finish. Welded bar grating treads without nosing's are acceptable providing the leading edge can be readily identified by personnel descending the stairway and provided the tread is serrated or is of definite nonslip design. Rise height and tread width will be uniform throughout any flight of stairs including any foundation structure used as one or more treads of the stairs.

5. LADDER SAFETY

To ensure safety and serviceability the following precautions concerning the care and use of ladders will be observed:

5.1. Care. The following safety precautions will be observed in connection with the care of ladders:

5.1.1. Ladders will be always maintained in good condition, the joint between the steps and side rails will be tight, all hardware and fittings securely attached, and the movable parts will operate freely without binding or undue play.

5.1.2. Metal bearings of locks, wheels, pulleys, etc., will be frequently lubricated.

5.1.3. Frayed or badly worn rope will be replaced.

5.1.4. Safety feet and other auxiliary equipment will be kept in good condition to insure proper performance.

5.1.5. Ladders will be inspected frequently and those which have developed defects will be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use."

5.1.6. Rungs should be kept free of grease and oil.

5.2. Use the following safety precautions will be observed in connection with the use of ladders:

5.2.1. Portable rung and cleat ladders will, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support 1 to 4 ratio). The ladder will be placed to prevent slipping, or it will be lashed, or held in position.

5.2.2. Ladders will not be used in a horizontal position as platforms, runways, or scaffolds.

5.2.3. Ladders will not be used by more than one person at a time nor with ladder jacks and scaffold planks.

5.2.4. Portable ladders will be placed so that the side rails have a secure footing. The top rest for portable rung and cleat ladders will be reasonably rigid and will have ample strength to support the applied load.

5.2.5. Ladders will not be placed in front of doors opening toward the ladder unless the door is blocked upon, locked, or guarded.

5.2.6. Ladders will not be placed on boxes, barrels, or other unstable bases to obtain additional height.

5.2.7. Ladders will not be used on top of scaffolds.

5.2.8. Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment will not be used; improvised repairs will not be made.

5.2.9. Short ladders will not be spliced together to provide long sections.

5.2.10. Ladders made by fastening cleats across a single rail will not be used.

5.2.11. Ladders will not be used as guys, braces, or skids, or for other than their intended purposes.

5.2.12. Tops of the ordinary types of stepladders will not be used as steps.

5.2.13. Portable rung ladders with reinforced rails will only be used with metal reinforcement on the underside.

5.2.14. No ladder should be used to gain access to a roof or another level unless the top of the ladder extends at least 3 feet above the point of support, at eaves, gutter, or roofline.

5.2.15. All portable rung ladders will be equipped with nonslip bases when there is a hazard of slipping. Nonslip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used upon oily, metal, concrete, or slippery surfaces.

5.2.16. The bracing on the back legs of stepladders is designed solely for increasing stability and not for climbing.

6. INSPECTIONS

The employee using the ladder or Supervisor in charge, to ensure safety and serviceability, will inspect ladders before every use. Ladders will be always maintained in a good usable condition. Defective ladders will be tagged "danger do not use" or other appropriate language and turned into the Supervisor in charge.

Section 13—Lockout/Tagout Program

PROGRAM REQUIREMENTS

H-J will ensure that all machinery and tasks meeting the criteria for lockout/tagout at our Facility are evaluated. The purpose of this program is to provide guidelines and procedures for isolating all forms of energy from any source to prevent unexpected energizing or startup of equipment or release of stored energy, which can cause injury. This program will be maintained in accordance with OSHA Regulations 29 CFR 1910.147. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

RESPONSIBILITY

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who have the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received training before assignment to work.

TRAINING AND COMMUNICATION

Affected employees will receive training to ensure that they are aware of the hazards associated with equipment that is locked out and tagged. Authorized employees receive training that provides them with the knowledge and skills they need to safely use and remove energy controls.

Training Content. The following training elements will be presented:

- Recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- The purpose and use of the ***H-J*** Lockout/Tagout Program and energy control procedures.

- All employees whose work operations are in an area where energy control procedures may be utilized, are instructed about the procedure, and about the prohibition relating to attempts to restart or re-energize machines or equipment which are locked out and tagged.
- The importance of lockout tags being legible and securely attached to be effective.

Employee Retraining

- Retraining is provided for all authorized and affected employees whenever there is a change in their job assignments, or a change in procedures.
- Additional retraining is conducted whenever a periodic inspection reveals, or whenever there is a reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

Certification Certification of employee training and re-training will be documented and kept current. The certification will contain each employee's name, date of training, and instructor signature and be maintained in the training file. Certification of authorized employees may include the issuance of a personal lock and key.

SPECIFIC RESPONSIBILITIES

Affected employees Employees whose job requires them to operate or use equipment on which servicing, or maintenance is being performed under lockout/tagout, or whose job requires them to work in an area where such servicing or maintenance is being performed, are responsible to:

- Remember the purpose of lockout/tagout.
- Recognize the identified and possible hazardous energy sources in their work area.
- Comply with all requirements of the ***H-J*** lockout/tagout program.
- Not attempt to start or energize equipment or systems that are locked out and tagged out.

Authorized Employees Where individual employees of ***H-J*** are required to perform lockout/tagout or be involved in an operation where lockout/tagout is being performed the following guidelines will be followed. Designated Supervisors, and other designated employees will receive the training necessary to ensure they have the skills required to safely implement lockout/tagout on equipment. These Authorized Employees are responsible to:

- Understand that Tag Only systems are to be utilized only with extreme caution and must provide the same level of protection as locks.
- Perform lockout/tagout procedure in accordance with this Program.
- Coordinate with other authorized employees when using the procedures during multiple shifts and group lockouts (See Section 6)
- Refer to equipment specifications to identify the type and magnitude of the energy that the machine or equipment utilizes in order to understand the hazards and control methods associated with the energy.
- Perform periodic inspections of the lockout/tagout procedures in use.
- Maintain any assigned individual locks, tags, and lockout devices issued.

Supervisors Supervisors must do the following:

- Be familiar with the contents of this program.
- Ensure that Lockout/Tagout Procedures are followed by all employees performing tasks, which fall under the guidelines of this program.
- Ensure that all employees performing Lockout/Tagout have been trained and have proof of training before allowing them to perform Lockout/Tagout operations.

Safety Department The SAFETY DEPARTMENT is ultimately responsible to:

- Ensure that all ***H-J*** personnel are aware of and understand the purpose of the Lockout/Tagout program.
- Ensure that all personnel receive the appropriate training to protect them from the unexpected release of hazardous energy.

WRITTEN ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURES

Lockout/Tagout work performed on any certain equipment or in certain facilities may require a written energy control procedure (lockout/tagout procedure). An authorized employee must establish the energy control procedure prior to conducting the lockout/tagout work. The energy control procedure must be documented on a blank Energy Control Procedure form at the end of this program or other similar form. If necessary, the energy control procedure form can be modified to meet any special requirements for a specific task, however the completed procedure will usually include the following information:

- A specific statement of the intend use of the procedure;
- Necessary steps for shutting down, isolating, blocking, and securing the equipment to control hazardous energy;
- Necessary steps for the placement, removal, and transfer of lockout devices and associated tags and the person responsible for these devices;
- Necessary requirements for testing the equipment to determine and verify the effectiveness of the lockout and tag, and other energy control measures; and
- Necessary diagrams or schematics.

LOCKOUT/TAGOUT STEPS

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. Use these guidelines to ensure that the equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before any employees perform any servicing or maintenance where the unexpected start-up of the equipment or release of stored energy could cause injury. Refer to Appendix A for a blank Energy Control Procedure form when conducting Lockout/Tagout.

Lockout/Tagout Steps

1. Notify all affected employees that servicing, or maintenance is required on a machine or equipment and that the equipment must be shut down and locked out to perform the activity.
2. Determine the type and magnitude of the energy used by the equipment, understand the hazards of the energy, and know the methods to control the energy.
3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
4. Apply the energy isolating device(s).
5. Lockout and tag the energy isolating device(s) with assigned lock(s) and tag(s).
6. Dissipate or restrain stored or residual energy (such as that in capacitors, springs, hydraulic systems, and air, gas, steam, or water pressure) by methods such as grounding, repositioning, blocking, or bleeding down.
7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the control, or by testing to make certain the equipment will not operate.

Restoring Equipment to Service When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps will be taken:

1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the equipment components are operationally intact.
2. Check the work area to ensure that all employees have been safely positioned or removed from the area.
3. Verify that the controls are in neutral, if applicable.
4. Remove the lockout devices and re-energize the machine or equipment.
5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

GROUP LOCKOUT/TAGOUT PROCEDURES

Whenever feasible group lockout/tagout procedures will require that each individual affix their assigned lock to the energy-isolating device. However, when this is not possible due to a large group or the design or location of the energy-isolating device then a group lockout/tagout procedure containing the following will be used:

- One authorized employee designated by the appropriate supervisor with the primary responsibility for a defined number of other personnel working under the protection of a group lockout and tag.
- A checklist with the name of all employees in the group and each individual's signature on the list identifying their presence before application of the lock and tag to the equipment. In addition, after the lockout work is completed and before removal of the group lock and tag from the equipment the

responsible authorized employee will verify the presence of each individual in the group and each individual's signature on the checklist.

LOCKOUT/TAGOUT DURING SHIFT OR PERSONNEL CHANGES

If a personnel or shift change is necessary, the following steps will ensure that the change occurs in an orderly fashion and that employee protection is maintained:

- In the event of a personnel change, the arriving authorized employee's lock and tag will be applied before the departing authorized employee's lock and tag are removed.
- In the event of a shift change, the lock and tag of at least one authorized employee on the arriving shift will be applied before any locks and tags of the departing shift are removed. The departing crew will inform the arriving crew of the status of the equipment and the work in progress. In the event that an employee has left the site without removing their lock and tag, then the Supervisor in charge will make every attempt to contact the employee who locked out the equipment. If the employee cannot be reached the Supervisor will contact the SAFETY DEPARTMENT before the individual's lock is cut and removed.

TESTING OR POSITIONING OF EQUIPMENT DURING LOCKOUT

In situations in which lockout devices must be temporarily removed from the energy isolating device (because the machine or equipment must be energized to test or for positioning,) the authorized employee shall consult the Energy Control Procedure Form and follow the sequence of actions listed for Restoring Equipment to Service. Once the testing or positioning is complete and before servicing or maintenance is continued, de-energization following the steps on the Energy Control Procedure Form shall be reinstituted.

TAGOUT ONLY PROCEDURES

Whenever feasible energy control procedures or lockout/tagout will be performed using both an energy isolating device with a lock affixed to it as well as an identifying tag. However, when this is not possible due to the design or location of the equipment a Tagout Only procedure will be used. All attempts will be made to avoid the use of a Tag Out only procedure. If a Tagout Only procedure is required, *Full Employee Protection* must be provided.

Full employee protection will be demonstrated by attaching the tagout device to the same location that the lockout device would have been attached and taking additional measures to ensure that the employee is working at a level of safety equivalent to that of using a lockout/tagout procedure. Additional safety measures include but are not limited to the following:

- Removal of an isolating circuit element.
- Blocking of a controlling switch.
- Opening of an extra disconnecting device.
- Removal of valve handles to reduce the likelihood of inadvertent energization.

DEFINITIONS

Affected employee is an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee is a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

Capable of being locked out means an energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energized means connected to an energy source or containing residual or stored energy.

Energy isolating device is a mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

Energy source is any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Hot tap is a procedure used in the repair, maintenance and services activities which involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

Lockout is the placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device is a device that utilizes a positive means such as a lock, key type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Normal production operations is the utilization of a machine or equipment to perform its intended production function.

Servicing and/or maintenance means workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Setting up**.** Any work performed to prepare a machine or equipment to perform its normal production operation.

Tagout is the placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device is a prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

PLEASE SEE THE LOCKOUT/TAGOUT BINDER FOR THE CURRENT LOCKOUT/TAGOUT Machine Specific Procedures, ANNUAL REVIEW, AMMENDMENTS TO THE PROGRAM AND TRAINING RECORDS.

H-J—ENERGY CONTROL (LOTO) ANNUAL EVALUATION

SECTION I: GENERAL INFORMATION (Required)

Specify equipment & location where the LOTO procedure is being used: Please see the "H-J-- MACHINE SPECIFIC LOTO PROCEDURE LIST" that follows this page.

Authorized Employee(s):

Is the inspector an "authorized employee"? NO

Authorized Employee Energy Control Procedures (LOTO) Annual Evaluation Certification

An annual inspection was conducted by the inspector, Kelly Sexauer—Safety Administrator of the authorized employees performing the lockout/tag out work. This inspection included a review with each authorized employee of the employee's responsibilities relative to the energy control procedure being inspected. The ***H-J*** Energy Control Policy, Machine Specific LOTO procedures, and required Training were all Evaluated/Reviewed on 3/30/2022 in accordance with the OSHA LOTO Annual Review.

SECTION II: LOCKOUT/TAGOUT PROCEDURE		**Y**	**N**
1.	Were all "affected" and "other" employees verbally notified of the lockout?	**x**	
2.	Were operational controls turned to the "Off" position prior to lockout?	**x**	
3.	Were all energy sources turned to the "Off" or "Safe" position?	**x**	
4.	Were lockout devices and locks properly attached to each energy isolation device?	**x**	
5.	Were 1 tag and 1 lock used by each authorized individual on the job at each control point?	**x**	
6.	Were warning tags indicating the authorized employee's name and the date attached to each energy isolation device?	**x**	
7.	Was all stored energy properly controlled? (Pneumatic & hydraulic energy bled, suspended parts lowered, etc.)	**x**	
8.	Was an attempt made to restart the equipment or otherwise ensure the effectiveness of the lockout prior to beginning the service work?	**x**	
9.	If a group lockout was required, did all authorized employees attach their own locks and tags to each energy isolation device?	**x**	
10.	Were all locks and devices properly removed after servicing?	**x**	
11.	Were all "affected" and "other" employees verbally notified when the lockout was complete?	**x**	
12.	Maintain the **tag** & this sheet for a minimum of **1 year** or until the next audit is conducted	**x**	

SECTION III: INSPECTION RESULTS AND SIGNATURES

Please fully explain all "No" responses and note any other deficiencies that are not specifically covered by a checklist item: (May use back of form showing line # and comment) **No Deficiencies observed or found.**

Deficiencies must be corrected through revised procedures, training, or both.

The results of this audit should be shared in a crew meeting

Inspector Name: Kelly Sexauer/Gary Rickert DATE

Prepared by Kelly Sexauer/Gary Rickert Annual LOTO Evaluation of Program

H-J LOTO PERIODIC INSPECTION FORM

This LOTO periodic inspection shall be conducted by an authorized employee who does not participate in the lockout process being inspected. This inspection must be conducted as the lockout procedure is being implemented. Any deficiency found in the LOTO procedure must be corrected immediately and all authorized employees must be retrained in the updated procedure. If a situation is discovered to be immediately dangerous to life or health, the LOTO process must be terminated.

Department:	**ID No.:**
Equipment Description:	

Date of Inspection: _____

Name of Inspector:

1. _____ Signature: _____

Authorized Employees Inspected:

1. _____ Signature: _____
2. _____ Signature: _____
3. _____ Signature: _____

Removal of Equipment from Service	**Yes**	**No**	**Comments**
1. Did the authorized employee know the location of the LOTO procedure?			
2. Were all affected workers notified that equipment was to be locked out?			
3. Did the employee turn the machine off at the main controls?			
4. Did employee identify and locate all energy sources?			
5. Did employee use appropriate LOTO locks, tags, and devices to isolate all energy sources?			
6. Did the LOTO devices contain legible information that identified the authorized employee?			
7. Were potentially hazardous stored energies relieved, restrained or otherwise rendered safe?			
8. Did employee test the equipment to verify that it would not restart, and then return all controls back to the “off” position?			
9. If more than one authorized employee was working on the equipment, did each employee place his own lock and tag on each energy source?			

Restoring Energy to Equipment			
1. Was the work area checked to ensure that all tools and materials were removed, all guards properly reinstalled, all interlocks were restored, and personnel were clear of the area before equipment was re-energized?			
2. Were the LOTO devices removed by the same authorized employee(s) who attached them?			
3. Were affected employees notified that equipment was going to be returned to service?			
4. Were appropriate procedures followed to re-energize the equipment?			

LOTO Procedure Inspection	Yes	No	Comments
1. Is the equipment specific procedure readily available?			
2. Does the procedure list all types and magnitudes of energy sources?			
3. Does the procedure list the locations of the hazardous energy sources?			
4. Does the procedure accurately list the steps for de-energizing and controlling all identified hazardous energy sources on the equipment?			
5. Have all hazardous energy sources for this equipment been labeled and identified?			
6. Were all required energy control devices available and in good condition?			

All "no" responses marked during the periodic inspection require corrective actions with dates for completion.

Corrective Actions	Due Date	Date Completed
1.		
2.		
3.		
4.		
5.		
6.		

Annual LOTO Inspection Certification Form

Date of Inspection:	Inspector:
Machine/Equipment:	Authorized Employee:
Were all the hazardous energy sources properly identified in the written procedure? YES NO If no, explain:	
Were the energy isolation steps outlined in the procedure effective in isolating all the sources of stored energy? YES NO If no, explain:	
Were the proper lockout/tagout devices (padlocks, plug locks, valve cover locks, blocks, breaker locks, tags, etc.) available to effectively perform the energy isolation procedure? YES NO If no, explain:	
Did the authorized employee(s) deviate from the lockout/tagout procedure? YES NO If yes, explain:	
Did all authorized employees participating in the inspection understand their responsibilities under the procedure? YES NO If no, explain:	
Was the procedure adequate to provide the necessary protection? YES NO If no, explain:	
Certification: I certify that this periodic inspection was performed in conformity with the information set forth herein. Inspector's Signature:	

Section 14— MACHINE, EQUIPMENT & TOOL GUARDING POLICY

1. ***Purpose*** The purpose of this procedure is to minimize the risks associated with the operation of machinery and equipment by providing requirements for the protection of machine operators, shop users, and others who work or traverse an area with machining hazards. The purpose is also to ensure regular maintenance of machining equipment is conducted.

   This procedure is following 29 CFR 1910 Subpart O, "Machinery and Machine Guarding" and Subpart P, "Hand and Portable Powered Tools and Other Hand-Held Equipment". It is developed in accordance with other ***H-J*** procedures including LOTO, Hearing Conservation, and Hazard Communication.

2. ***Scope*** This procedure applies to Machine Operators, and/or workers whose work duties require them to utilize equipment in ALL ***H-J Facilities*** or require them to work with portable power tools. It includes all ***H-J*** departments and areas that have machinery and equipment capable of causing injury.
   All hand and powered tools and other hand-held equipment utilized at ***ALL H-J*** Facilities construction, alteration, repair, demolition, electrical, plumbing, vehicle maintenance and general purposes are covered by this program.

3. Responsibilities

3.1. Department Supervisors shall provide the resources necessary to ensure those areas under their supervision meet the expectations of this procedure.

3.2. Safety Department shall:

3.2.1. Maintain this written procedure to meet regulatory requirements and periodically review the program to assure it is current.

3.2.2. Provide technical assistance to ensure this program is successfully implemented.

3.2.3. Conduct routine inspections of Machines/Tools to verify that the requirements of this procedure are being met and provide oversight to ensure any findings are addressed.

3.3. Department Supervisors or Designee shall:

3.3.1. Have overall responsibility for their machines/tools, including equipment maintenance, training, controlling access to hazardous machinery, implementing safety guidelines, and approving authorized operators.

3.3.2. Be capable of identifying existing and predictable hazards in their departments which include unsanitary, hazardous, or dangerous conditions in the area and have the authorization to take prompt corrective measures to eliminate them.

3.3.3. Be familiar with the safe operation of all Department machines, equipment, and tools.

3.3.4. Ensure this procedure is enforced within their areas of responsibility.

3.3.5. Ensure that all machine safeguards are in place and operational.

3.3.6. Ensure employees follow machine safety operating procedures, including, but not limited to, not bypassing, removing, or defeating machine safeguards.

3.3.7. Maintain the owner's manuals or instructions for each piece of equipment.

3.3.8. Ensure shop and/or machine specific training is provided and documented for shop personnel or machine operators as required by Section 14 of this procedure.

3.3.9. Complete a personal protective equipment (PPE) hazard assessment for the shop.
3.3.10. Ensure that equipment in need of repair or service is taken out of service and that repairs and service are made only by authorized personnel.
3.3.11. Maintain records such as training, shop safety inspections, and maintenance and repair records.
3.3.12. Ensure only trained and authorized personnel are permitted to work or operate machinery.

3.4. Machine Operators, Shop and Equipment Users shall:
3.4.1. Follow the requirements of this program.
3.4.2. Operate machines and equipment with all safeguards in place.
3.4.3. Conduct visual pre-operation inspections of machines and equipment to ensure guards are in proper operating condition.
3.4.4. Not bypass, remove, or defeat safeguards.
3.4.5. Maintain proper housekeeping of work area.
3.4.6. Report all missing or damaged safeguards to the Department Supervisor or designee immediately and not operate any machine or equipment with a missing or defective safeguard.
3.4.7. Participate in required training.
3.4.8. Not operate a machine until properly trained.

4. Definitions

4.1. Emergency Stop – A hardwired stop that is generally accessible to employees in their work area and is designed to cut off power to the machine or process when activated.
4.2. Ground Fault Circuit Interrupter (GFCI) – A fast-acting circuit breaker designed to shut off electric power in the event of a ground fault within as little as 1/40 of a second. It works by comparing the amount of current going to and returning from equipment along the circuit conductors.
4.3. Hazards – Mechanical, electrical, and/or physical conditions that could cause harm to employees or other personnel in the vicinity of machinery or equipment. Mechanical Hazards include rotational motion, nip points, and cutting, shearing, punching, and forming mechanisms.
4.4. Hot Work Activity – Any use of open flames such as welding, torch use or soldering. In addition, this includes any activity which creates sparks such as grinding.
4.5. Interlock – An arrangement in which the operation of one part or mechanism automatically brings about or prevents the operation of another. Interlocks shall be durable, not easily bypassed, and shall stop all hazardous motion before employee interaction.
4.6. Machine Guards – Physical structures or electrical systems used to prevent access during machinery or equipment operation. This includes barrier guards, two-hand trip mechanisms and electronic safety devices.
4.7. Nip Point – An in-running machine or equipment part, in which two in-running parts rotate towards each other, or where one part rotates toward a stationary object.
4.8. Point of Operation – The point at which cutting, shaping, or forming is accomplished upon the stock, including the hazards associated with inserting and manipulating the stock.
4.9. Safeguard – Term for a number of measures that provide workers with effective protection from harmful contact with moving parts or other harmful conditions. Safeguards include barrier guards,

safety devices, shields, awareness barriers, warning signs, or other appropriate means, used singly or in combination.

4.10. Safeguarding Device – Devices used as alternatives to barrier guards, such as interlocked movable barrier guards, two-hand controls, and electronic presence-sensing devices such as light curtains and pressure-sensitive mats. These solutions are more complex and technical but are designed to provide protection during normal operation.

5. General Machines/Equipment Requirements

5.1. Only trained and competent personnel are permitted to utilize machines/equipment and tools. See Section 14 – Training.

5.2. Appropriate personal protective equipment (PPE) shall be worn while working in machine shops or when using hand/portable power tools that may be hazardous to the operator. See PPE Section.

5.3. Damaged or broken equipment/tools shall be removed from service and tagged “DO NOT USE” or similar. Repairs shall be made prior placing equipment back into service.

5.4. When guarding or other engineering controls are not feasible or are not fully capable of protecting the operator, consult with the Safety Department for potential administrative or personal protective equipment controls.

5.5. Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

5.6. Safeguards removed during repair or preventative maintenance shall be replaced before equipment is returned to service. Equipment with removed safeguards shall be locked and tagged in accordance with the ***H-J*** LOTO Program.

5.7. All machines equipped with emergency stop (e-stop) buttons shall have the e-stops located in close proximity (within the operator’s reach) to the machine operator and be red in color with a yellow background.

5.8. The use of compressed air to clean equipment shall utilize air nozzles that upon dead-ending the exit orifice, the static pressure is reduced to less than 30 psi. Use of compressed air for cleaning is only permitted when there are chip guards and when PPE is used by the operator and other personnel in the area. ***Compressed air shall never be used for cleaning personnel or their clothing.***

6. General Machine Guarding Requirements

6.1. One or more methods of guarding shall be provided to protect operators and other personnel in the area from machine hazards.

6.1.1. Hazard examples include those created by point of operation, nip points, rotating parts, flying chips and sparks.

6.1.2. Examples of guarding methods include fixed guards, barrier guards, two-hand tripping devices, electronic safety devices, etc.

6.2. Routine Machine Guarding Checks

6.2.1. Machinery and equipment shall be visually checked before each operation to verify that the guards are in place and that sensing devices and interlocks, if available, are functioning properly and have not been bypassed, removed or otherwise not functional.

6.2.2. Missing guards or defective safeguards should be corrected immediately, or the machines taken out of service until corrections are completed.

6.3. Machine guards shall meet the following requirements:

6.3.1. Prevent operator contact with the hazard by enclosing it or otherwise preventing access to the hazard by reaching over, under, around or through a guard.
6.3.2. Firmly attached to equipment or secured elsewhere by use of fasteners that requires a tool to remove. If the guards cannot be affixed to the machine, consult the Safety Department.
6.3.3. Constructed of durable material that will withstand normal conditions of use.
6.3.4. Protect objects from falling into the machine's moving parts.
6.3.5. Not introduce any new hazards or create unintended machine operations.
6.3.6. Allow for safe lubrication and maintenance of equipment.

6.4. Point of operation guarding

6.4.1. The point of operation of the machine shall be guarded. The guard shall be designed and constructed to prevent the operator from having any body part in the danger zone during the operating cycle.
6.4.2. Special hand tools for placing and removing material should be used. If used, the tools shall permit easy handling of material without the operator placing a hand in the danger zone. Such tools shall only be used to supplement a guard.

6.5. All foot operated switches shall be guarded to prevent accidental activation by personnel or falling objects.

6.6. When the periphery blades of a fan are less than seven (7) feet above the floor or working level, the blades shall be guarded.

7. Welding / Cutting / Brazing – Hot Work Activities

7.1. Areas where hot work is performed shall be evaluated as to whether a Hot Work Permit is required. Areas where hot work is performed may be considered a Designated Hot Work Area. Contact the Safety Department for support.

8. Hand and Power Tools

8.1. Exposed moving parts of power tools shall be safeguarded. This includes belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other moving parts.

8.2. Safeguards shall never be removed when a tool is being used.

8.3. Bench, pedestal and portable grinders:

8.3.3. When mounting a wheel, always ensure that the grinder speed does not exceed the maximum operating speed marked on the wheel.

8.4. Electric power tools are to be effectively grounded or be double insulated.

8.5. Hand and power tools shall be in good operating condition free from defects or broken parts.

8.6. Power tools shall be unplugged before performing service such as blade replacement, grinding wheel replacement, etc.

8.7. Ground Fault Circuit Interrupter (GFCI) shall be used for electric power tools that could potentially be used in a wet environment.

8.8. Extension cords are not allowed to be used as permanent fixtures.

8.8.1. There is a 90-day limit for the use of an extension cord.
8.8.2. Extension cords shall be inspected prior to use.

9. Other Requirements

9.1. Machinery/Equipment placement shall not interfere with clear access to emergency exits or emergency equipment such as fire extinguishers or electrical disconnects. Machinery shall be positioned so that a clear and safe operating area is maintained for each machine.

9.2. Housekeeping

9.2.1. Areas shall be maintained in a clean and orderly manner.

9.2.2. Sawdust, metal chips, and other debris shall be routinely cleaned (e.g., at the end of work shift or class) from surfaces such as machinery, bench tops, and floors.

9.3. Food and drink are prohibited inside production areas and any other area where food and beverages may be contaminated by dust, debris, paint, or chemicals.

9.4. Wet surfaces or slippery floors should be cleaned or addressed immediately.

9.5. Materials shall be stored in a manner that prevents objects from falling. Shelves or cabinets shall be used as appropriate to store materials and storage of items shall not exceed the capacity of the shelves or cabinets.

10. Personal Protective Equipment (PPE) and Work Attire

10.1. The minimum PPE required for H-J Production areas:

10.1.1 Eye & Face Protection devices - ANSI Z87.1-1989 "American National Standard Practice for Occupational and Educational Eye and Face Protection"

10.1.2 Foot Protection devices - ANSI Z41-1991 "American National Standard for Personal

10.1.3 Noise Reduction Rating (NRR) Hearing Protection

10.1.4 Hand Protection - No national standard available - selection will be based on task performed, conditions present, duration of use, and the hazards and potential hazards identified. (gloves may be used for material handling or handling hot work)

10.2. All areas shall have a completed PPE Hazard Assessment.

10.3. Personnel shall wear hearing protection when noise exposure exceeds the action level (85 dBA) and shall participate in the ***H-J*** Hearing Conservation Program. Contact the Safety Department for additional guidance or for a noise survey.

10.4. Loose shirt material such as long sleeves or shirttails shall be tucked in, rolled up, or otherwise secured to prevent contact with moving parts. Other material such as neckties, scarves, hood strings shall not be worn when in machine/shop areas or around moving and rotating machine parts.

10.5. Hair below the collar shall be tied back or covered by a hat. Long beards shall also be secured or covered when working around machinery.

10.6. Jewelry that can get caught in moving parts shall be removed. This may include rings, bracelets, necklaces, etc.

10.7. Gloves shall not be worn near rotating equipment. Gloves may be necessary for material handling tasks that could cause splinters or when conducting welding or grinding operations or when working with hot materials.

11. Visitors and Contractors

11.1. Contractors shall not use ***H-J*** owned equipment unless authorized by an authorized ***H-J*** employee.

11.2. Contractors who are performing repairs or servicing ***H-J*** owned equipment may have to operate the equipment for troubleshooting or verifying repairs.

11.3. Visitors including visiting faculty are not permitted to utilize machine/equipment or tools unless special provisions have been made. Contact the Safety Department for support.

12. Training

12.1. The Department Supervisor or Designee shall complete a Training Needs Assessment. This shall include the personnel operating Machines/Equipment or Tools.

12.2. The Department Supervisor or Designee shall ensure all personnel utilizing the machines/equipment/Tools are trained prior to authorizing to use machines/ equipment/tools.

12.3. The Department Supervisor or Designee shall conduct equipment specific training for personnel operating machinery and equipment. The training shall be documented and include the date the training occurred and the person conducting the instruction. The training shall include, at a minimum, the following:

- Description and identification of the hazards associated with the particular machinery or equipment.
- Purpose and function of the safeguards, how they provide protection, and the hazards for which they are intended.
- How to use the safeguards and under what circumstances they can be removed and by whom.
- What to do if the safeguard is damaged, missing, or unable to provide protection.
- Any specific departmental rules.

13. Machine Guarding Safety Assessments

13.1. Prior to using a machine/equipment or tool, the operator/user or the Department Supervisor or Designee shall visually ensure each machine guard, e-stop (if so equipped) and other safety devices are present and functioning properly. If these safety devices are missing or not working, the tool or machine shall be immediately taken out of service and not used until proper repairs have been made.

13.2. Machine guarding safety reviews shall be conducted routinely by the Shop Manager or Designee. These are to evaluate machine and equipment safeguarding. Each review should include the following:

13.2.1. Confirmation that machine guards and safety devices currently in use are sufficient to protect the operator from hazards.

13.2.2. If necessary, the development of an action list identifying safeguarding needs by machine, actions planned to address the needs, a timetable for resolution and person(s) responsible.

13.3. The Safety Department shall conduct annual machine/equipment/tool assessments. Machine Shop Assessment Tool attached to this policy.

14. Record Retention

14.1. Shop or machine specific training records and safety assessments shall be maintained by the Safety Department.

14.2. These records may be retained electronically or in hard copy format.

15. References

15.1. 29 CFR 1910 Subpart O, “Machinery and Machine Guarding”

15.2. 29 CFR 1910 Subpart P, “Hand and Portable Powered Tools and Other Hand-Held Equipment
15.3. ***H-J***, Hearing Conservation Program
15.4. American National Standards Institute applicable standards.

Section 15—Equipment, Tools, and Ground Fault Safety Program

1. PROGRAM REQUIREMENTS

H-J will ensure that hazards associated with tools and other cord and plug operated electrical equipment are evaluated and communicated to employees and appropriate protective measures for employees established. This program is intended to address the issues of evaluating and identifying tool selection and use deficiencies, evaluating the associated potential hazards, communicating information concerning these hazards, and minimizing the possibility of injury or harm. This program will be maintained in accordance with OSHA Regulations OSHA 29 CFR 1910 Subparts O and P. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who have the ultimate responsibility for all facets of this program. The SAFETY Department has full authority to make necessary decisions to ensure the success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received the proper training for the specific equipment and tools necessary for each job assignment.

3. TRAINING REQUIREMENTS

Training will be conducted prior to job assignment. ***H-J*** will provide training to ensure that the grounding requirements, purpose, function, and proper use of equipment and tools to be used in the normal function of their jobs is understood by employees.

3.1. General. Under no circumstances will an employee operate tools or equipment until they have successfully completed training. This includes all new operators or users of tools and equipment, regardless of claimed previous experience.

3.2. Training Content.

3.2.1. Grounding requirements for tools and associated electrical equipment.

3.2.2. Types of equipment and tools appropriate for use.

3.2.3. Recognition of applicable electrical hazards associated with work to be completed.

3.2.4. Procedures for removal of equipment and/or tools from service.

3.2.5. Basic maintenance for equipment and tools.

3.3. Certification. ***H-J*** will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training.

3.4. Refresher Training. The training content will be identical to initial training. Refresher training will be conducted on the required basis or when the following conditions are met, whichever event occurs sooner.

3.4.1. Refresher will be provided for all authorized and affected employees whenever (and prior to) there being a change in their job assignments, a change in the type of tools used, or when a known hazard is added to the work environment.

3.4.2. Additional training will also be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of tools.

3.4.3. The retraining will reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.

4. General Requirements

H-J is responsible for the safe condition of tools and equipment used by its employees. Tools and equipment that may be furnished by employees must be approved for use by Supervisors and will be included under this program. Supervisors will ensure that equipment utilized is maintained in a safe condition.

4.1. Employees will not remove guards, ground pins, or other safety devices from equipment, tools or machinery.

4.2. Defective tools or equipment must be reported and/or turned into the Supervisor.

4.3. All tools and equipment will be operated in accordance with the specific safety rules and manufacturer’s specifications.

4.4. Compliance with the guidelines of this program is mandatory and failure to comply with them will result in disciplinary action, up to and including discharge.

5. Equipment/Tool Selection

Supervisors will consider the following when selecting tools for use by employees:

5.1. Is the tool correct for the type of work to be performed?

5.2. Is the grounding terminal present on the plug or is the tool double insulated?

5.3. Are grounding terminals or grounding-type devices plugs defeated in any way?

5.4. Is each extension cord set and equipment connected by cord and plug visually inspected daily before use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage?

5.5. Is equipment found damaged or defective removed from service until repaired or replaced?

5.6. Are guards installed properly and in good condition?

6. Equipment/Tool Precautions

The following precautions will be taken by employees of this company to prevent injury:

6.1. Power tools will always be operated within their design limitations.

6.2. Proper PPE must be worn (safety glasses, gloves, etc.) during operation.

6.3. Tools will be stored in an appropriate dry location when not in use.

6.4. Tool work will only be conducted in well-illuminated locations.

6.5. Tools will not be carried by the cord or hose.

6.6. Tools will be disconnected when not in use, before servicing, and when changing accessories such as blades, bits and cutters.

6.7. Work will be secured with clamps or a vice where possible to free both hands to operate tools.

6.8. Tools will be maintained in a clean manner, and properly maintained in accordance with the manufacturer guidelines.

6.9. Ensure that proper apparel is worn. Loose clothing, ties, or jewelry can become caught in moving parts.

6.10. Tools that are damaged will be removed from service immediately and tagged "Do Not Use". They will be reported and turned over to the Supervisor or SAFETY DEPARTMENT for repair or replacement.

7. INSPECTIONS AND RECORDKEEPING

7.1. Machinery, tools, and equipment will be inspected regularly to ensure safety and serviceability. Supervisors inspect all machinery, equipment, cords, and accessories before every use.

Section 16—Fall Protection Program

1. PROGRAM REQUIREMENTS

H-J will ensure that the hazards of all elevated falls over 4 feet in height, within our Facilities are evaluated, and that information concerning their hazards is transmitted to all employees. This Program is intended to address the issues of evaluating these potential hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees. This program will be maintained in accordance with OSHA Regulations 29 CFR 1910.66, 1926.104, and 1926.500. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY

The SAFETY Department is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY Department has full authority to make necessary decisions to ensure the success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received the fall protection training before working in any areas where fall hazards exist.

3. TRAINING REQUIREMENTS

Under no circumstances shall employees work in areas where they might be exposed to fall hazards, do work requiring fall protection devices, or use fall protection devices until they have completed fall protection training. ***H-J*** will provide training to ensure that the purpose, function, and proper use of fall protection is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees.

3.1. Training will be conducted by the SAFETY Department or other designated competent personnel. The program will include but will not be limited to:

3.1.1. A description of fall hazards in the work area.

3.1.2. Types of fall protection systems appropriate for use such as guardrails, warning lines, and fall arrest systems.

3.1.3. Selection and use of personal fall arrest systems, including application limits, proper anchoring and tie-off techniques, estimation of free fall distance, methods of use, and inspection and storage procedures.

3.1.4. Recognition of the hazards of falling from elevations and to avoid falls from grade level to lower levels through holes or openings in walking/working surfaces.

3.1.5. Procedures for removal of protection devices from service for repair or replacement.

3.2. Retraining. The training content will be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner. The retraining will reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.

3.2.1. Retraining will be provided for all authorized and affected employees whenever (and prior to) a change in their job assignments, a change in the type of fall protection equipment used, or when a known hazard is added to the work environment which affects the fall protection program.

3.2.2. Additional retraining will also be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of fall protection equipment or procedures.

3.2.3. Whenever a fall protection procedure fails.

3.3. Certification. ***H-J*** will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training.

4. FACILITY/WORK AREA EVALUATION

All Facility or work areas will be assessed by the SAFETY Department before each assigned job for potential fall hazards. A proper fall protection system will be used for jobs requiring fall protection when elimination of the hazard(s) is not possible.

4.1. When evaluating the fall hazards of the Facilities or work areas consider the following:

4.1.1. Must the work be performed at an elevation?

4.1.2. Are there any floor holes or openings greater than 2 inches in diameter?

4.1.3. Can a standard guardrail system be installed?

4.1.4. Can a barricade system be implemented?

4.1.5. Can Aerial Lifts or Platforms be used to increase worker safety?

4.1.6. Will the use of a fall arrest system be required?

4.1.7. Will a detailed, job-specific, fall protection plan be required?

5. FALL PROTECTION SYSTEMS

When fall hazards cannot be eliminated through any other means, fall arrest systems will be used to control falls. Proper training in the use of fall arrest equipment is essential and will be provided prior to use. Supervisors must consult with the SAFETY DEPARTMENT prior to implementation of any fall protection system. Although personal fall arrest systems are the most common type of system used by our employees, all of the following systems have been identified by ***H-J*** as generally accepted for elevated work conducted at our facility.

5.1. Floor Holes. Employees must be protected from falling through or into floor holes at or above 2 inches in diameter as follows:

5.1.1. All covers shall be color coded or marked with the word "HOLE" or "COVER" to provide warning of the hazard.

5.1.2. Covered with plywood or other material of sufficient strength capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.

5.1.3. All covers shall be secured when installed to prevent accidental displacement by the wind, equipment, or employees.

5.2. Guard Rail Systems. Guard rail systems must meet these minimum requirements:

5.2.1. Have a top rail height of 42” (plus or minus 3”).

5.2.2. Have a proper midrail no less than 21” high.

5.2.3. Have a top rail able to withstand 200 lbs. downward/outward force.

5.2.4. Have a midrail able to withstand 150 lbs. downward/outward force.

5.2.5. Have a toe board minimum of 3 1/2 inches in vertical height from the top edge to the level of the walking surface.

5.2.6. Toe boards must not have more than ¼-inch clearance above the walking surface.

5.2.7. Toe boards must be solid or have openings not over 1 inch in greatest dimension.

5.2.8. If the top rail is made of wire rope it must be flagged every 6 feet.

5.2.9. All rails must be a minimum of 1/4” diameter or greater.

5.3. Warning Line Systems. Warning line systems consist of ropes, wires, or chains, and supporting stanchions and are set up as follows:

5.3.1. Flagged at not more than 6-foot (1.8 meters) intervals with high-visibility material.

5.3.2. Lowest point including sag is no less than 34 inches (0.9 meters) from the surface and highest point is no more than 39 inches (1 meter) from the surface.

5.3.3. Stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches (0.8 meters) above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof, or platform edge.

5.4. Fall Arrest System. A full body harness system consists of a full-body harness, lanyard, energy shock absorber, and self-locking snap hook. Before using a full-body harness system, the supervisor and/or the user must address such issues as:

5.4.1. Has the user been trained to recognize fall hazards and to use fall arrest systems properly?

5.4.2. Are all components of the system compatible according to the manufacturer's instructions?

5.4.3. Have appropriate anchorage points and attachment techniques been reviewed?

5.4.4. Has free fall distance been considered so that a worker will not strike a lower surface or object before the fall is arrested?

5.4.5. Have swing fall hazards been eliminated?

5.4.6. Have safe methods to retrieve fallen workers been planned?

5.4.7. Has the full-body harness and all its components been inspected both before each use and on a regular semi-annual basis?

5.4.8. Is any of the equipment, including lanyards, connectors, and lifelines, subject to such problems as welding damage, chemical corrosion, or sandblasting operations?

5.4.9. Will it meet these minimum requirements?

- Limit maximum arresting force on an employee to 1,800 pounds.
- Be rigged so that an employee can neither free fall more than 4 feet (1.8 meters) nor contact any lower level.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet (1.07 meters).
- Have sufficient strength to withstand twice the potential impact energy of an employee free-falling a distance of 4 feet (1.8 meters) or the free fall distance permitted by the system, whichever is less.
- Have a proper anchorage point used for attachment of personal fall arrest equipment capable of supporting at least 5,000 pounds per employee attached.

6. INSPECTION AND MAINTENANCE

To ensure that fall protection systems are ready and able to perform their required tasks, inspections and maintenance will be conducted. The following as a minimum, will comprise the basic requirements of the inspection and maintenance program:

6.1. Floor hole covers, guardrails, and warning lines will be inspected periodically throughout the day to ensure they have not been defeated, broken, moved, or knocked over. Any problems found with them should be reported immediately to the Supervisor and must be remedied as soon as possible after discovery. Equipment manufacturer's instructions will be incorporated into the inspection and preventive maintenance procedures.

6.2. Fall arrest systems must be inspected by the user before and after every use and according to manufacturer specifications.

6.3. Any fall protection equipment subjected to a fall or impact load will be removed from service immediately and turned into the Supervisor and/or Safety Department.

6.4. The user will inspect anchors and mountings before each use for signs of damage.

7. DEFINITIONS

Anchorage means a secure point of attachment for lifelines, lanyards or deceleration devices.

Body belt means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness means straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent person means a person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector means a device that is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabiner, or it may be an integral component of part of the system.

Deceleration device means any mechanism with a maximum length of 3.5 feet, such as a rope grab, ripstitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy shock absorber means a device that limits shock-load forces on the body.

Failure means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall arrest system means a system specifically designed to secure, suspend, or assist in retrieving a worker in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free fall means the act of falling before a personal fall arrest system begins to apply force to arrest the fall.

Free fall distance means the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 4 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

Hole means a gap or void 2 inches or more in its least dimension, in a floor, roof, or other walking/working surface.

Lanyard means a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Personal fall arrest system means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Snaphook means a connector comprised of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snaphooks are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or
- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snaphook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard means a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking/Working surface means any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning line system means a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

Work area means that portion of a walking/working surface where job duties are being performed.

Section 17— Mobile Elevating Work Platforms (MEWPs) Program

1. PROGRAM REQUIREMENTS

H-J will ensure that the hazards associated with working on or from elevated platforms such as aerial lifts are evaluated and that information concerning their hazards is transmitted to all employees. This Program is intended to address the issues of evaluating these potential hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees. This program will be maintained in accordance with OSHA Regulations 29 CFR OSHA Mobile Scaffolds 29 CFR 1910.67 & ANSI A92.20-24. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. RESPONSIBILITY

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received proper fall protection and aerial lift training before working from aerial lifts.

3. NEW CHANGES The American National Standards Institute (ANSI) has approved a new A92 standard for aerial work platforms that becomes effective on March 1, 2020. This section will cover the changes to the equipment terminology, design, and use.

Equipment Terminology

Aerial Work Platforms (AWPs) will now be known as **Mobile Elevating Work Platforms, (MEWPs)**. The mobile classification means the equipment can be driven either under its own power or by manual effort.

Previously, lifts were classified by product types- boom or scissor. The new standard classifications are a combination of two groups and three types.

A **MEWP Group** is determined by the platform location in reference to the equipment's tipping line, which is either at the wheels or the outriggers:

- ***Group A***- A machine has a design that does not allow the main platform to extend beyond the tipping line. The platform does not go outside of the drive chassis envelope. An example of a Group A would be a scissor lift.
- ***Group B***- A machine has a design that allows the platform to extend beyond the tipping line. An example of a Group B machine would be an articulating or telescopic boom.

A **MEWP Type** is in reference to the equipment's ability to travel:

- ***Type 1*** - Traveling is allowed only with the MEWP in its stowed position.
- ***Type 2*** - Traveling with the work platform in the elevated position is controlled from a point on the chassis.
- ***Type 3*** - Traveling with the work platform in the elevated travel position is controlled from a point on the work platform.

For example, a **Group A, Type 1 MEWP** is manually propelled, the platform never extends beyond the tipping line and the machine is designed to only be moved with the platform in the stowed position. Another example would be a **Group B, Type 3 MEWP** that is articulated or telescopic, the platform is designed to extend beyond the tipping line, and machine travel is controlled from the platform controls.

Equipment Design Standards

The new ANSI A92 standards include changes to the equipment itself:

- Platform Load Sense (or Overload System or Load Sense System) - All **MEWPs** will be required to continuously check the weight in the platform and disable certain functions if the load is above the platform load limit.
- Dynamic Terrain Sensing — Drive and certain boom functions must be disabled when out of their slope limit and functions restricted only to those that safely return the machine to terrain that is within limits.
- Indoor-only machines — Allows for the development of smaller, lighter-weight **MEWPs** bearing an "indoor only" rating because these **MEWPs** cannot be used in windy conditions.
- Toe guards on work platform entrances.
- Prohibited use of chain gates and flexible gates.
- Reduced lift and lower speeds on some models.

Safe Use and Planning

The user must develop a Safe Use Program specific to **MEWPS** to include:

- Performing a site risk assessment.
- Selection and use of a suitable **MEWP** and associated equipment.
- An assessment that the support surface is adequate to support the weight of the **MEWP**.
- MEWP maintenance including inspections and repairs as required.
- Informing the operator of local site requirements including identifying hazards and controls.
- Have a trained and qualified supervisor to monitor the operator's performance.
- Prevention of unauthorized use of the **MEWP**.
- Safety of persons not involved in the operation of the **MEWP**.

Risk Assessment and Rescue Planning

The risks associated with **MEWP** operations shall be identified. These may be associated with the location where the work is to be carried out, the nature of the **MEWP**, or the personnel, materials, and equipment to be carried.

- Identify control measures
- Identify safe work procedures
- Rescue from height
- Communicate the results

The user must develop a written rescue plan that will be used in the event of machine breakdown, platform entanglement, or a fall from the platform. The plan shall become part of the company's training manual.

Supervisor Training

The user must ensure that all personnel that directly supervise **MEWP** operators are trained in the following areas:

- Proper selection of the correct MEWP for the work to be performed.
- The rules, regulations and standards that apply to **MEWPs**, including the provisions for safe use as defined in ANSI A92.22 Training and Familiarization, and the work being performed.
- Potential hazards associated with use of **MEWP**s and the means to protect against identified hazards.
- Knowledge that the manufacturer's operating manual(s) are an integral part of the equipment and need to be stored properly in the weather resistant compartment on the **MEWP.**

Operator Training

The **MEWP** operator must ensure that all occupants in the platform have a basic level of knowledge to work safely on the **MEWP** which includes the following:

- The requirement to use fall protection and the location of fall protection anchors.
- Operational factors, including how their actions could affect stability.
- Safe use of **MEWP** accessories they are assigned to use.
- Site specific work procedures the occupants must follow related to the operation of the **MEWP.**
- Hazards related to the task at hand and their avoidance.
- Manufacturer's warnings and instructions.
- At least one of the occupants must be trained to operate the controls in an emergency when the operator cannot.

Maintenance and Repair Personnel Training

Users must ensure that maintenance and repair personnel are trained by a qualified person to inspect and maintain the **MEWP** in accordance with the manufacturer's recommendations, as well as ANSI and CSA standards.

When a **MEWP** is rented, arrangements must be made by the owner to identify the entity that will be responsible for the inspections and maintenance activities described in the standard:

- Frequent Inspections - When the **MEWP** is put into service or has been out of service for three months.

- Annual Inspections- Performed no later than 13 months after the previous Annual Inspection.

Rescue Planning

All occupants must receive training that explains the procedures to follow if they fall and await rescue or witness another worker's fall. This plan must limit the time that a worker hang suspended in a harness. Rescue plans can include the following:

- Self-rescue – by the person involved
- Assisted rescue – by others in the work area
- Technical rescue – by emergency services

4. TRAINING REQUIREMENTS.

H-J will provide training to ensure employees who perform work from **MEWP** Lifts will be trained to recognize the hazards associated with the type of lift being used and to understand the procedures to control or minimize those hazards. Supervisors will ensure that all employees have been trained prior to working from the lifts.

4.1. The training will include the following areas as applicable:

4.1.1. The nature of and the correct procedures for dealing with electrical hazards.

4.1.2. The proper use and operation of the lift, and the proper handling of materials on the lift.

4.1.3. The maximum intended load and the load-carrying capacities of the lifts used.

4.1.4. Any other pertinent requirements of the OSHA rules.

4.1.5. A description of fall hazards in the work area or job site.

4.1.6. Procedures for using fall prevention and protection systems.

4.1.7. **MEWP** Lift equipment limitations and specifications per manufacturer.

4.1.8. Inspection and storage procedures for the equipment.

4.2. Refresher training. The training content shall be identical to initial training. Refresher training will be conducted on an **annual** basis or when the following conditions are met, whichever event occurs sooner.

4.2.1. Retraining shall be provided for all employees whenever there is a change in their job assignments, a change in machines, or equipment or processes that present a new hazard.

4.2.2. Additional retraining shall be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employees' knowledge or use of **MEWP** lifts.

4.3. Certification. ***H-J*** shall certify that employee re-training has been accomplished and is being kept up to date. The certification shall contain each employee's name, supervisor or instructor's name and dates of training.

5. FALL PROTECTION

Our fall protection plan follows OSHA requirements, which depend on the type of lift that is used. In general, employees must inspect the guardrails to ensure they are not damaged or loose before moving or raising the lift. In addition, employees must secure the entry gate, guardrail, or safety chain on the lift before moving or raising the lift. Unless otherwise stated by the manufacturer, a body harness shall be worn and a properly adjusted lanyard attached to the boom or basket when working from all extensible boom platforms and articulating boom platforms to ensure the employee remains safely inside the lift. Unless required by the Safety Department, or Manufacturer, a harness and lanyard need not be worn on a vertical tower (scissor) **MEWP** lift; this is the only exception.

6. MEWP LIFT SAFETY

Anytime **MEWP**, including: (1) extensible boom platforms, (2) aerial ladders, (3) articulating boom platforms, (4) vertical towers (scissor lifts), or (5) a combination of any such devices, are used to elevate employees to Facility above ground, the following safety rules will apply.

6.1. No employee shall operate any type of lift unless properly trained in the operation and inspection before operation of aerial lifts, and the employee must carry proof of training on him at all times while operation of the lift takes place.

6.2. All lifts shall be inspected before each shift to determine that such lift is in safe working condition. Check lift controls for proper functioning, tire pressure (if the lift has inflated tires), make sure the lift has no leaks of any fluids, and make sure the operator's manual is on the lift at all times during operation.

6.3. Unless otherwise stated by the manufacturer, a body harness shall be worn and a properly adjusted lanyard attached to the boom or basket when working from all extensible boom platforms and articulating boom platforms to ensure the employee remains safely inside the lift. Unless required by the Safety Department or Manufacturer a harness and lanyard need not be worn on a vertical tower (scissor) **MEWP** lift; this is the only exception.

6.3.1. The point of connection must be constructed to withstand 5000 pounds of its intended weight. Most aerial lifts have this connection built in (check the operator's manual for location of this anchorage point). Do not tie-off to an adjacent pole, structure, or equipment while working from an aerial lift. All employees shall stand firmly on the floor of the basket or platform and shall not sit or climb on the edge of the basket or use planks, ladders or other devices for a work position.

6.4. **MEWP** lift trucks shall not be moved when the boom is elevated in a working position with the worker(s) in the basket, except for equipment which is specifically designed for this type of operation.

6.5. No **MEWP** lift this company uses will be "field modified" for uses other than those intended by the manufacturer.

6.6. Employees must ensure that **MEWP** lifts including any conductive equipment used by the employee in the lift is stationed a minimum of 10 feet away from electrical power lines.

Section 18—Hearing Conservation Program

1. Program Requirements

H-J has implemented this program to address the issue of preventing injuries resulting from occupational noise. This program will be maintained in accordance with OSHA Regulation 29 CFR 1910.95. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. Responsibility

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and maintain a copy of the program at the facility, provide their subordinates with the necessary personal protective equipment, and notify the SAFETY DEPARTMENT if there is a potential of exposure to occupational noise.

3. Training Requirements

H-J employees need to understand the health and safety hazards associated with workplace noise. This company will institute a training program for all employees who are exposed to noise at or above a 10-hour time weighed average of 83 decibels or (8- hour is 85 dBA) and will ensure employee participation in such program.

3.1. The training program will be repeated annually for each employee included in the hearing conservation program. Information provided in the training program will be updated to be consistent with changes in protective equipment and work processes. Each employee will be informed of the following:

3.1.1. The effects of noise on hearing.

3.1.2. The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care.

3.1.3. The purpose of audiometric testing, and an explanation of the test procedures.

3.2. Access to information and training materials. ***H-J*** will make available to affected employees copies of this program.

3.3. Refresher training. The training content shall be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner.

3.3.1. Retraining shall be provided for all employees whenever there is a change in their job assignments, a change in machines, or equipment or processes that present a new hazard.

3.3.2. Additional retraining shall be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employees' knowledge.

3.4. Certification. ***H-J*** shall certify that employee re-training has been accomplished and is being kept up to date. The certification shall contain each employee's name, supervisor or instructor's name and dates of training.

4. HEARING CONSERVATION PROGRAM

H-J is dedicated to providing a safe and healthy working environment. We believe that safety in all operations and activities is of primary importance. However, it is the employee's responsibility to seek assistance when required, and to carry out the job in a safe manner. ***H-J*** will administer a continuing, effective hearing conservation program, as described in the following paragraphs, whenever employee noise exposures equal or exceed a 10-hour time weighted average sound level (TWA) of 83 decibels or (8- hour is 85 dBA) measured on the A scale (slow response). For purposes of the hearing conservation program, employee noise exposures will be computed without regard to any attenuation provided by the use of personal protective equipment:

4.1. A 10-hour time weighted average of 83 decibels (8- hour is 85 dBA) or a dose of fifty percent will also be referred to as the action level.

4.1.1 Noise Sampling was performed in BOTH H-J Production Facilities, using Travelers Calibrated Dosimeter:

DATE	LOCATION	dBA	Exceeds OSHA PEL	Below OSHA PEL
7/5/23	3010 – Eye Bolt Area	79.0		X
7/5/23	3010 – Cell 1	78.6		X
7/5/23	3010 – TQ3/SP20	77.1		
7/5/23	3010 - TR06	84.0		X
7/6/23	3010 - SWECO	95.7	X	
7/6/23	3010 – SWECO DESK	66.4		X
7/6/23	3010 – Grinding Corral	91.8	X	
7/12/23	EPC – Mold Repair	84.8		X
7/12/23	Tool Room	69.7		X
7/12/23	EPC – Epoxy Press	84.7		X
7/11/23	EPC – Epoxy Finishing	80.0		X
6/29/23	EPC – CNC	92.9	X	
6/29/23	EPC – Epoxy Press	86.7		X
6/29/23	EPC - CNC	89.8	X	
3/20/23	3010 Machine Shop	75.6		X
3/20/23	3010 – Machine shop desk	76.3		X
3/21/23	3010 – Custodial	71.7		X
3/22/23	EPC - Brazing	91.2	X	
3/22/23	EPC – Quality	78.5		X
3/22/23	EPC – Plating	83.2		X
3/23/23	EPC - Shielding	70.7		X
3/23/23	EPC – Bar stock Cutter	80.3		X

4.2. Monitoring. When information indicates that any employee's exposure may equal or exceed a 10-hour time weighted average of 83 decibels or (8- hour is 85 dBA), this company will implement this monitoring program.

4.2.1. The company will conduct sampling to identify employees for inclusion in the hearing conservation program and to enable the proper selection of hearing protectors.

4.2.2. All continuous, intermittent and impulsive sound levels from 80 decibels to 130 decibels will be integrated into the noise measurements.

4.2.3. Instruments used to measure employee noise exposure will have been calibrated to ensure measurement accuracy.

4.2.4. Monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:

4.2.4.1. Additional employees may be exposed at or above the action level.

4.2.4.2. The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of paragraph (j) of 29 CFR 1910.95.

4.2.5. This company will notify each employee exposed at or above a 10-hour time weighted average of 83 decibels or (8- hour is 85 dBA) of the results of the monitoring.

4.2.6. Observation of monitoring. This company will provide affected employees or their representatives with an opportunity to observe any noise measurements conducted.

4.3. Baseline audiogram. Within 6 months of an employee's first exposure at or above the action level, this company will establish a valid baseline audiogram against which subsequent audiograms can be compared. The company will obtain a valid baseline audiogram within 1 year of an employee's first exposure at or above the action level (mobile van only). Where baseline audiograms are obtained more than 6 months after the employee's first exposure at or above the action level, employees will wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained. Audiometric Testing will be provided at no cost to the employee.

4.4. Annual audiogram. At least annually after obtaining the baseline audiogram, ***H-J*** will obtain a new audiogram for each employee exposed at or above a 10-hour time weighted average of 83 decibels or (8- hour is 85 dBA).

4.4.1. Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.

4.4.2. ***H-J*** will notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination.

4.4.3. Follow-up procedures. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift has occurred, the employee will be informed of this fact in writing, within 21 days of the determination.

4.4.3.1. Employees exposed or potentially exposed to high noise will be fitted with hearing protectors, trained in their use and care, and required to use them. For known high noise job assignments employees will be fitted and trained prior to job assignment.

4.4.3.2. Employees already using hearing protectors will be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.

4.4.3.3. Employees will be referred for a clinical audiological evaluation, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

4.5. Hearing protectors. ***H-J*** will make hearing protectors available to all employees exposed to a 10-hour time weighted average of 83 decibels or (8- hour is 85 dBA) or greater at no cost to the employees. Hearing protectors will be replaced at no cost as necessary.

4.5.1. ***H-J*** will ensure that hearing protectors are worn:

4.5.1.1. By any employee who is required by previous testing to wear personal protective equipment.

4.5.1.2. By any employee who is exposed to a 10-hour time weighted average of 83 decibels (8- hour is 85 dBA) or greater, and who: has not yet had a baseline audiogram established or has experienced a standard threshold shift.

4.5.2. Employees will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided.

4.5.3. ***H-J*** will provide training in the use and care of all hearing protectors provided to employees.

4.5.4. ***H-J*** will ensure proper initial fitting and supervise the correct use of all hearing protectors.

4.6. Hearing protector attenuation. ***H-J*** will evaluate hearing protector attenuation for the specific noise environments in which the protector will be used. One of the evaluation methods described in Appendix B: Methods for Estimating the Adequacy of Hearing Protection Attenuation will be used.

4.6.1. Selected hearing protectors will attenuate employee exposure at least to an 8- or 10- hour time weighted average of 90 decibels.

4.6.2. The adequacy of hearing protector attenuation will be re-evaluated whenever employee noise exposure increases to the extent that the hearing protectors provided may no longer provide adequate attenuation. More effective hearing protectors will be provided where necessary.

5. AUDIOMETRIC TESTING PROGRAM

This company will maintain an audiometric testing program in accordance with the following guidelines.

5.1. ***H-J*** will establish and maintain an audiometric testing program free of charge for employees whose exposures equal or exceed a 10-hour time-weighted average of 83 decibels or (8- hour is 85 dBA).

5.2. Audio metric tests will be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing

Conservation. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

5.3. All audiograms obtained pursuant to this Program will meet the requirements of 29 CFR 1910.95, Appendix C: Audiometric Measuring Instruments.

5.4. ***H-J*** will provide protection against the effects of noise exposure when the sound levels within our facility exceed those shown in Table G-16 of 29 CFR 1910.95 when measured on the A scale of a standard sound level meter at slow response.

5.5. When employees are subjected to sound exceeding those listed in Table G-16 of 29 CFR 1910.95, this company will administer or have administered by qualified personnel, audiometric examinations, obtain valid audiograms, and ensure proper controls are reviewed and implemented where feasible. If such controls fail to reduce sound levels within the acceptable levels, personal protective equipment will be provided and used to reduce sound levels within the levels of the table.

6. RECORDKEEPING

Exposure measurements. ***H-J*** will maintain an accurate record of all employee exposure measurements.

6.1. Audiometric tests. ***H-J*** will retain all employee audiometric test records. This record will include as a minimum:

6.1.1. Name and job classification of the employee.

6.1.2. Date of the audiogram.

6.1.3. The examiner's name.

6.1.4. Date of the last acoustic or exhaustive calibration of the audiometer.

6.1.5. Employee's most recent noise exposure assessment.

6.1.6. ***H-J*** will maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

6.2. Record retention. ***H-J*** will retain audiometric and related records for at least the following periods.

6.2.1. Noise exposure measurement records will be retained for two years.

6.2.2. Audiometric test records will be retained for the duration of the affected employee's employment.

6.3. Access to records. All records cited in this Program will be provided upon request to employees, former employees, representatives designated by the individual employee, and representatives of OSHA. The provisions of 29 CFR 1910.20 apply to access to records under this section.

6.4. Transfer of records. If ***H-J*** ceases to do business, the records will be transferred to the successor employer and maintained by the successor employer. Should the company cease to function entirely the records will be provided to the respective employees, or as required by current law.

Section 19—Confined Space Entry Program

1. Program Requirements

This Program is intended to address the issues of evaluating potential confined space hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees. ***H-J*** will review and evaluate this program on an annual basis, or when changes occur to 29 CFR 1910.146, that prompt revision of this document, or when operational changes occur that require a revision of this document.

1.1 H-*J* does NOT Permit any employee to enter into a Confined Space at the EPC Building. Confined Spaces at H-J have been identified and has appropriate Signage. Confined Space(s) Include: 3010—Blue Dust Collector and Tank for Binder, 3010 Maintenance Team will attend annual Confined Space Training.

2. Responsibility

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and have received the confined space entry or awareness training before working in any areas where confined spaces exist. Supervisors will ensure that Atmospheric Testing or Monitoring Data is available for review by all Attendants and Entrants during the confined space work. Subcontractors will be required to provide a written Confined Space Entry program that describes the subcontractors' policies and procedures when they will be working in confined spaces.

3. Specific Responsibilities

3.1. The company SAFETY DEPARTMENT will be responsible for ensuring that all subcontractors performing confined space entry work have submitted a copy of their written confined space entry program and copies of documentation of training prior to beginning work.

3.2. Supervisors. Company Supervisors are responsible for identifying any confined spaces or potential confined spaces before assignment of employees to any work. Supervisors will notify the SAFETY DEPARTMENT immediately if there is any doubt as to the designation of a work area as a confined space.

3.3. Entry Supervisors are responsible for all personnel who enter or work in confined spaces. In addition, they will do the following:

3.3.1. Knowledge of Hazards/Exposure Conditions. The entry supervisor will know and understand the unique hazards and exposure conditions associated with each confined space and be aware of the effects of the exposure conditions.

3.3.2. Confined Space Entry Permit. The entry supervisor will ensure that the Confined Space Entry Permit is completed and must sign it before anyone enters a confined space.

3.3.3. Authority Assigned. Entry supervisor can authorize entry into designated confined spaces. The entry supervisor can also deny entry, terminate entry, remove unauthorized personnel, and cancel the permit at any point during the procedure.

3.3.4. Lock-out/Tag-out. Before anyone enters a confined space Lock-out/Tag-out procedure must be performed in accordance with the ***H-J*** Lock-out/Tag-out Program to ensure equipment is properly isolated.

3.3.5. Pre-entry Conditions. The entry supervisor will ensure that the pre-entry conditions are acceptable, and that conditions do not deteriorate during entry. The entry supervisor will perform pre-entry review activities for confined spaces and discuss with entrants the potential hazards, the appropriate safeguards, and the personal protective equipment required.

3.3.6. Rescue Services Coordination/Notification. The entry supervisor will ensure that rescue services have been coordinated and notified of the pending entry.

3.3.7. Rescue Alarm and Communication System. The entry supervisor will functionally test the rescue alarm and communication system, verifying normal operation.

3.3.8. Maximum Residence Time. Based on the work being performed, determine the maximum residence time for personnel in the confined space. The maximum continuous residence time should not exceed two hours per entrant.

3.3.9. Training Verification. Verify that each person who participates in any confined space entry has been trained.

3.3.10. Responsibility Transfer During Entry/Shift Change. When a transfer of responsibility occurs during an entry, the new entry supervisor will verify the entry conditions and initial the entry permit. During a shift change, the new entry supervisor will complete a new permit.

3.3.11. Emergency Medical Information. The entry supervisor will have access to safety data sheets (SDS) or equivalent information for use by all confined-space entry personnel and will furnish the information to medical facilities that treat any exposed or injured member of the entry team.

3.3.12. Stationing Attendants. The entry supervisor will station an attendant at each permit-required confined space and ensure that an attendant serves for the duration of the permit.

3.4. Attendant(s) is responsible to do the following:

3.4.1. Knowledge of Hazards/Exposure Conditions. Attendants will read and sign the entry permit, state their understanding of the unique hazards and exposure conditions in the confined space to the entry supervisor, and be aware of the effects of the exposure conditions.

3.4.2. Entry Conditions/Permit. The attendant will participate in the process of verifying entry conditions and will sign the permit.

3.4.3. Service & Duty. An attendant will serve for the duration of the permit. The attendant will remain at his/her post and not leave for any reason, except self-preservation, unless replaced by an equally qualified individual while entry continues.

3.4.4. Continuous Communication. The attendant will maintain continuous communication with all entrants by voice, radio, telephone, visual observation, or any other equally effective means.

3.4.5. Monitoring Conditions. The attendant will:

3.4.5.1. Monitor conditions inside and outside of the confined space and determine whether it is safe for the entrants to remain in the confined space.

3.4.5.2. Perform field-testing of equipment before each use in accordance with the manufacturer's recommendations for that equipment to ensure that it functions properly.

3.4.5.3. Perform the tests indicated on the confined-space entry permit, including any additional tests that may be necessary. Record the results on the confined-space entry permit.

3.4.5.4. Ensure that the confined-space monitoring procedures test for atmospheric contaminants that are representative of all areas of confined spaces.

3.4.6. Authority. The attendant will have the authority to order entrants to exit the space and perform a non-entry retrieval at the first indication of an increased exposure condition, an unexpected hazard/exposure condition, equipment malfunction, any unusual conduct by the entrants which could indicate a toxic reaction, or a situation occurring outside the confined space that could pose a hazard to the entrants.

3.4.7. Procedure for Emergency Assistance. The attendant will know the procedure and have the means to summon immediate emergency assistance.

3.4.8. Unauthorized Personnel. The attendant will keep all personnel not listed on the permit out of the area designated for confined space entry.

3.4.9. Lock-out/Tag-out. Before anyone enters a confined space Lock-out/Tag-out procedures must be performed in accordance with the ***H-J*** Lock-out/Tag-out Program to ensure equipment is properly isolated.

3.5. Entrant. Individuals who work in confined spaces shall do the following before entering:

3.5.1. Knowledge of Hazards/Exposure Conditions. Entrants will read and sign the entry permit, state their understanding of the unique hazards and exposure conditions in the confined space to the entry supervisor, and be aware of the effects of the exposure conditions.

3.5.2. Continuous Communication. The entrant will maintain continuous communication with the attendant at the point of entry by voice, radio, telephone, visual observation, or any other equally effective means.

3.5.3. Use of Equipment. Entrants will know how to properly use all necessary entry and personal protective equipment.

3.5.4. Emergency Exits. Entrants will exit the confined space immediately when the attendant or entry supervisor orders an evacuation, or they perceive warning signs or symptoms due to exposure.

3.5.5. Lockout/Tagout. Before anyone enters a confined space Lockout/Tagout procedures must be performed in accordance with ***H-J*** Lockout/Tagout Program to ensure equipment is properly isolated.

3.6. Emergency Rescue Services. ***H-J*** will provide rescue service—us*e an internal team, outside contractor or service, or combination* throughout the duration of the entry. The rescue service will be capable of performing appropriate rescue measures. The designated Attendant and Entry Supervisor will be responsible for notifying the rescue service in the event that rescue or non-entry retrieval is being performed.

3.6.1. Rescue services will be given an opportunity to examine the entry site, practice rescue if necessary and decline as appropriate. The rescue service will be qualified to perform rescue as required in the OSHA Regulation.

3.6.2. Response Time. A four-minute time limit on retrieving an entrant incapacitated by oxygen deficiency should be the goal of any rescue plan.

3.6.3. First Objective. The first objective of the rescue team is non-entry rescue (retrieval) and assistance. If this is not feasible the attendant will notify the rescue service team.

3.6.4. Lock-out/Tag-out. Before anyone enters a confined space Lock-out/Tag-out procedures must be performed in accordance with the ***H-J*** Lock-out/Tag-out Program to ensure equipment is properly isolated.

4. TRAINING REQUIREMENTS

4.1. Awareness Training.

4.1.1. All ***H-J*** employees receive awareness training that will cover what a confined space is, what the hazards of confined spaces are, and identification of all confined spaces within the facility.

4.2. Entry Training.

4.2.1. Entry training will be provided to Entry Supervisors, Authorized Attendants, and Authorized Entrants to ensure that they acquire the knowledge and skills necessary for safe entry into confined spaces.

4.2.2. Entry training will be provided before an employee is required to perform work in a confined space, before there is a change in assigned duties, whenever there is a change in permit space operations that presents a hazard to which employees have not previously been trained, and whenever there are deviations or inadequacies in permit space entry procedures.

4.2.3. All entry teams will be trained in confined space entry according to this document.

4.3. Type and Frequency of Training.

4.3.1. Classroom. All entry teams will receive academic training annually.

4.3.2. Entry Drill. All entry teams will receive entry procedure drill training annually.

4.4. Training Requirements.

4.4.1. Entry Permit. All entry teams will be taught how to complete the entry permit.

4.4.2. Hazard/Exposure Condition Requirements.

4.4.2.1. Atmospheric. All entry teams will be taught that even though human senses may be unable to detect an exposure condition, breathing the atmosphere could be fatal. Only proper testing can be relied on to determine that the atmosphere is breathable. Warning characteristics of exposure such as odor, taste, feel, and symptoms caused by exposure, some of which may show up as long as 72 hours after exposure will be covered.

4.4.2.2. Lock-out/Tag-out. All entry teams will be trained in lock-out/tag-out procedures according to the ***H-J*** Lock-out/Tag-out Program.

4.4.3. Improper Entrance. Attendants will receive training concerning the importance of not entering a confined space unless they are properly equipped and relieved of their duties by another qualified attendant. Attendants who make improper entries into confined spaces will very likely fall victim to the associated hazards.

4.4.4. Ventilation. All entry teams will be trained to ensure that the confined space has been adequately purged prior to entry, and that adequate ventilation is maintained.

4.4.5. Atmospheric Testing. Pre-entry testing of confined space atmospheres will be explained and demonstrated to all entry teams. Testing assures that adequate environmental controls are in place before entry.

4.4.6. Oxygen Enriched Environment. All entry teams will be trained in the hazards associated with working in an oxygen-enriched environment. Enriched oxygen levels present serious safety hazards because an entrant's clothing and hair may become extremely flammable due to excess oxygen, and absorbed oxygen absorbs slowly.

4.4.7. Respiratory Protective Equipment. All entry teams will be trained and certified in the use of respiratory protective equipment in accordance with 29 CFR 1910.134.

4.4.8. Personal Protective Equipment. All entry teams will be trained in the proper use of all applicable personal protective equipment (PPE) for eyes, face, head, body, and extremity protection. Training will include recognition of signs of equipment failure.

4.4.9. Physical Protective Equipment. All entry teams will be trained in the proper use of harnesses, hoists, fall arrestors, ropes, and rigging necessary to safely enter confined spaces.

4.4.10. Communication Equipment. All entry teams will be trained in the proper use of communications equipment for people in a confined space, and communications equipment for summoning external emergency services.

4.4.11. Evacuation of Confined Space. All entry teams will be taught the importance of immediate evacuation to a non-hazardous atmosphere to prevent serious or permanent injury. In order to minimize or prevent injury to themselves, they will leave the confined space/area for a safe atmosphere immediately on being ordered to do so, or when they recognize any sign of reaction to an exposure condition. Training seminars should address hazards inside and outside the confined space.

4.4.12. CPR/First Aid. Attendants will be required to complete CPR/First Aid training and be current before participating in a Confined Space Entry.

4.5. Documentation. The successful completion of training for all confined space entry personnel will be documented and made available for inspection for up to 3 years, minimum. The certification will include employee name, trainer signature/initials, dates of training.

5. HAZARDS MOST COMMON TO CONFINED SPACES

5.1. Hazardous Atmosphere.

5.1.1. Oxygen-deficient. Normal air contains approximately 20.9% oxygen; oxygen levels should remain between 19.5% and 23.5% within confined spaces. An atmosphere is defined as oxygen deficient if it contains less than 19.5% oxygen. The oxygen level in a confined space can decrease because of work being done, such as welding, cutting, or brazing or it can be decreased by certain chemical reactions. Total displacement of oxygen by another gas, such as carbon dioxide, will result in unconsciousness, followed by death.

- Atmospheric tests must be performed in the following order: oxygen deficiency, flammability, and toxicity.

5.1.2. Oxygen-enriched. Enriched oxygen atmospheres are defined as containing greater than 23.5% oxygen. These atmospheres may cause flammable materials, such as clothing to burn violently when ignited.

5.1.3. Flammable vapors and airborne combustible dust. An atmosphere which contains flammable gases, vapors, or mists in excess of 10% of their lower flammable limit (LFL) or airborne combustible dust which meets or exceeds its LFL has a greater potential for fire or explosion.

5.1.4. Toxic gases and vapors. Serious injury or death may result when the atmosphere contains even low concentrations of toxic gases (e.g., hydrogen sulfide, sulfur dioxide, or nitrogen dioxide).

5.1.5. Other. Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

5.2. Electrical/Mechanical Hazards.

5.2.1. Injury can occur from the moving parts of equipment that is inadvertently activated or from electrical shock from energized circuits.

5.3. Physical Hazards.

5.3.1. Injury can occur from physical hazards such as engulfment, falling objects, heat/cold stress, noise, and physical limitations of the employee, slipping, or falling.

6. GENERAL CONTROLS FOR CONFINED SPACE ENTRY

6.1. Pre-Planning.

6.1.1. Entry will not be permitted into a confined space until all precautions noted on the permit have been taken. All spaces will be considered permit spaces until the pre-entry procedures

demonstrate otherwise. Entry supervisors (i.e., the person who signs the permit and authorizes entry into a confined space) will brief entrants, supervisors, and team members on their responsibilities and the hazards and controls for safe entry.

6.1.2. Every effort will be made to avoid the need to enter a confined space. If possible, confined spaces will be cleaned and ventilated before entry.

6.2. Non-Permit Required Confined Spaces (Non-Permit Spaces). The following activities will be performed in order to ensure safe entry into non-permit spaces:

6.2.1. Where appropriate, barricades will be utilized to ensure that inadvertent entry into a confined space does not occur. In addition, barricades will be used to ensure that entrants are protected from hazards of falling objects or other external hazards.

6.2.2. Electrical equipment (e.g., ground fault circuit interrupters (GFCI) on power hand tools and other electrical equipment) will be properly grounded and bonded.

6.2.3. In general, proposed activities must not introduce hazards to the area thereby converting it into a permit required confined space.

6.2.4. If unexpected hazards arise, all employees within a confined space must immediately exit the space. Re-entry will not occur until a re-evaluation of the space is made to determine if it must be re-classified as a permit required confined space.

6.3. Permit Required Confined Spaces (Permit Spaces). In addition to those requirements for non-permit spaces, the following requirements are applicable to permit spaces:

6.3.1. All equipment at the confined space site will be set up and ready for entry before the issuance of the entry permit and actual entry.

6.3.2. A written permit will be completed, and all applicable items annotated, marked, and checked. The Entry supervisor is responsible for ensuring that all items have been completed and signed.

6.3.3. Mechanical ventilation for actual or potential atmospheric hazards will be available or initiated where applicable.

6.3.4. Tests of the atmosphere before and during entry into a confined space will be performed by a trained person.

6.3.5. An attendant(s) will be stationed at the entry point of the confined space and communication with entrants in confined spaces will be utilized. Attendants will be allowed to monitor only one entry at any given time.

6.3.6. A rescue service will be readily available throughout the duration of the entry that is capable of entering the confined space.

6.3.7. The proper personal protective equipment (PPE), as deemed necessary will be worn. The Entry Supervisor will ensure that PPE is appropriate and compatible with the permit space environment.

6.3.8. A harness retrieval system, unless it increases the risk of entry or will not contribute to rescue, will be utilized to assist with non-entry retrieval.

6.4. Controlling Ignition Sources.

6.4.1. All ignition sources are prohibited in confined spaces. Where operations such as welding or cutting equipment are required, a hot work permit must be obtained. When open flames must be used in confined spaces, additional precautions will be taken to ensure adequate ventilation.

6.4.2. Isolating the Area.

6.4.2.1. Isolation is the process whereby a permit required confined space is removed from service and protected from the release of energy and material into that space.

6.4.2.2. Before anyone enters a confined space lock-out/tag-out procedures must be performed in accordance with ***H-J 's*** Lock-out/Tag-out Program to ensure equipment is properly isolated.

6.5. Purging and Ventilating Confined Spaces.

6.5.1. Where a confined space contains sludge or other residue, tests positive for combustible or toxic elements, or indicates an oxygen deficiency or enrichment, the space must be purged with fresh air. In addition, positive ventilation will be provided both before and throughout entry into the space.

6.5.2. Residue will be removed using proper flushing techniques. Where appropriate, the space will be flushed with water or steam to ensure proper cleaning. All personnel must wear suitable PPE.

6.5.3. A continuous supply of fresh air (oxygen levels between 19.5% and 23.5%) will be provided in the work area before and while personnel are working in the confined space. Care must be taken to place the inlet upwind and away from the confined space and any other potential contaminant (e.g., vehicle exhaust).

6.5.4. The atmosphere must be re-tested for any hazard(s) in question upon completing the purging and ventilating procedures.

6.5.5. Subsequent tests will be continuously performed for oxygen deficiency, flammability, and/or toxicity during entry into the confined space or at intervals frequent enough to ensure a safe atmosphere.

6.6. Testing and Monitoring the Work Environment.

6.6.1. Tests for oxygen deficiency or enrichment, flammability, and toxicity must be conducted by a trained individual. These tests must be performed before entry, continuously during entry, or at intervals frequent enough to ensure a safe atmosphere.

6.6.2. Atmospheric tests must be performed in the following order: oxygen deficiency, flammability, and toxicity. Some flammability test instruments require an adequate amount of oxygen to work properly. Use of sampling lines or containers is required to avoid exposure to personnel during the initial testing operations. It is also important to ensure that sampling is representative of the total atmosphere in the space (e.g., sample at different levels within a deep tank).

6.6.3. Oxygen concentration must be maintained between 19.5 and 23.5 percent.

6.6.4. If a confined space is vacated for more than one hour before the job is completed, the air shall be re-tested to ensure that conditions have not changed since the original entry.

6.6.5. Authorized Entrants and Attendants or their representatives will have the opportunity to request that the confined space be re-tested or re-evaluated during the course of the entry.

6.7. Completing Entry Permits.

6.7.1. A Confined Space-Entry Permit (see Appendix to this program) is required before entering a high-hazard confined space. The Entry Supervisor will complete the permit.

6.7.2. Once the Entry Supervisor has signed the permit, it should be posted in an easily visible location. The entry supervisor's signature on the permit is verification that the space is safe to enter. The Entry Supervisor must ensure that all appropriate information is provided on the permit, tests specified on the permit are conducted, and that all procedures and equipment specified on the permit are in place to permit safe entry into the confined space. In addition, the Entry supervisor must ensure that rescue services are available throughout the duration of the entry.

6.7.3. The Entry supervisor terminates permits upon completion of work, if conditions change, or at the end of one work shift. Entry permits will only be used for the duration of one work shift unless otherwise noted on the permit. Permits will be retained in the site's Safety Department's office.

6.7.4. Upon the termination of a confined space permit, the Entry supervisor will contact the SAFETY DEPARTMENT to conduct a debriefing. The Entry supervisor will provide information on hazards encountered during the entry and hazards created by the work in the confined space.

6.8. Termination of Entry. Where any condition is develops that requires the termination of the entry such as an un-authorized entry, an unforeseen hazard or the creation of an additional hazard, an injury, or near miss the Attendant will ensure that the Entry Supervisor is notified immediately. The Entry Supervisor will ensure that all adverse conditions have been resolved and that the Entry Permit has been amended to address any additional hazards; if necessary, the Entry Supervisor will initiate a new Entry Permit before authorizing entry.

7. ENTRY AND RESCUE EQUIPMENT

7.1. Electrical. Ground-fault circuit interrupters will be used in the power supplies of portable electric equipment and with any portable tools and extension cords.

7.2. Personal Protective Equipment. Personal protective equipment for predicted exposures will be issued. Examples of such equipment are rubber gloves, face masks, goggles, and ear plugs.

7.3. Respiratory Protection.

7.3.1. All respirators will be NIOSH approved. Respiratory protection will be worn in accordance with the ***H-J*** Respiratory Protection Program. Potentially acceptable Types include:

7.3.1.1. Dust and Mist Respirators

7.3.1.2. Supplied-Air Respirators: All supplied-air respirators will be either positive-pressure or continuous-flow types attached by hose to Grade D, certified breathing air cylinders. An escape pack, with a cylinder of breathing air, will also be worn with supplied- air respirators. The cylinder will contain a 5-minute supply of Grade D breathing air, minimum.

7.3.1.3. Self-Contained Breathing Apparatus (SCBA): SCBAs will have cylinders containing Grade D breathing air with a rated capacity of 30 minutes, minimum.

7.4. Ventilation. Ventilation will be provided by using a high-speed fan or blower to supply fresh air to a confined space. The volumetric flow rate and pressure will be specified to meet or exceed the maximum calculated requirements for air exchange in the confined space.

7.5. Air Sampling.

7.5.1. Oxygen/LEL Percent Analyzer. A portable, continuous-monitoring, oxygen and flammable-vapor analyzer is required. It will be intrinsically safe and equipped with an audible alarm set at oxygen parameters at 19.5 – 23.5% and 10% LEL. Atmospheric tests must be performed in the following order: oxygen deficiency, flammability, and toxicity. Readings from fixed %LEL indicators or measuring devices are not acceptable for confined space entry. (See Section 5)

7.5.2. Direct Reading Toxic Gas Vapor Analyzer. A portable toxic gas/vapor analyzer such as a detector-tube instrument will be used when required.

7.6. Physical Protective Equipment.

7.6.1. Such equipment includes mechanical devices for lowering and raising the entrant, mounting devices, anchor points, full body harnesses and retrieval lines, and communication systems and alarms.

7.6.2. Mechanical Device for Lowering and Raising the Entrant. Such a device, a rope/pulley system for example, will be designed to prevent free fall by using a ratchet, or equivalent device, and a brake. The retrieval line must remain taut to keep the entrant from falling while being lowered into the confined space.

Note: ***H-J*** will provide factory-terminated ropes and rigging for normal entries.

7.6.3. Mounting Device or Anchor Point. A mounting device or anchor point can be a tripod, wall-mounted bracket, or an existing overhead beam to which the retrieval line can be attached. All installations will be mounted, or be positioned, outside the confined space so the attendant can retrieve the worker without entering the space. Equipment-Lifting and personnel-lifting apparatus will not be fastened to the same mounting device or anchor point.

7.6.4. Full Body Harness and Retrieval Lines.

7.6.4.1. Entrants will wear a full body harness for vertical entries over five feet. A full body harness is required; safety belts are not acceptable. The harness rings for attachment to the retrieval line should be located for maximum safety and comfort of the entrant.

7.6.4.2. Wristlets will be used for horizontal entries into confined spaces and may be considered in lieu of the body harness where the size of the confined space opening does not allow for a harness.

7.6.4.3. Retrieval lines, used for lowering or raising the entrant, will be attached to an anchor point outside the permit space in such a manner that retrieval can begin as soon as the attendant becomes aware of any problem.

7.6.5. Communication systems between the attendant and the entrant are of primary consideration. Line of sight between the attendant and the entrant will be maintained at all times when portable communication devices are not utilized. A two-way radio and/or telephone must be immediately available to the attendant for emergency situations. The attendant will not leave the point of entry to go for assistance unless relieved by another qualified attendant. The attendant will not in any case enter the confined space.

7.6.6. Alarm: The alarm may be a portable gas operated horn, a battery-operated alarm, or other device capable of immediately summoning the onsite third-party rescue team.

8. CONTRACTOR OPERATIONS AND MULTI-EMPLOYER JOBS

The Entry Supervisor will ensure that operations are coordinated where multiple trades, or employers are working in the same Confined Space as employees of ***H-J.*** The Entry Supervisor will meet with the other Entry Supervisor(s) to ensure that no additional hazards are created by the other employees and that our work will not adversely affect the other company employees. Where subcontractors are used to perform confined space work ***H-J*** will ensure the subcontractors confined space program must meet or exceed the requirements of this program.

9. DEFINITIONS

%LFL (percent Lower Flammable Limit) is the ratio of the vapor concentration relative to the LFL concentration for a specific solvent or gas. See "Lower Flammable Limit"

Acceptable entry conditions are the conditions that must exist in a permit space to allow entry and ensure that employees involved with a high-hazard confined space entry can safely enter into and work within the space.

Air, Breathing is the air that is free of contaminants and conforms to ANSI Type 1, Grade D (A-1151)

Atmosphere, acutely toxic is an atmospheric concentration of any substance which may result in employee exposure in excess of an OSHA Permissible Exposure Limit (PEL) or other exposure limit such as a Threshold Limit Value (TLV) which is capable of causing death, incapacitation, impairment of ability to self-rescue, injury or acute illness. Refer to safety data sheets (SDSs) for specific chemical.

Atmosphere, chronically toxic is an atmospheric concentration of any substance which may result in employee exposure above the PEL or TL V which would cause injury or illness upon repeated or prolonged exposure. Refer to the SDS or contact Industrial Hygiene.

Atmosphere, inert is an inert atmosphere that exists when the atmosphere of a confined space is non-combustible, non-explosive and chemically non-reactive because of a deficiency of oxygen; it will not support life.

Attendant is an individual stationed outside one or more permit spaces to monitor authorized entrants. He/she performs all attendants' duties assigned in the employer's permit space program.

Authorized Entrant is an employee authorized by the employer to enter a permit space.

Blanking or Blinding is the absolute closure of a pipe, line, or duct by fastening a solid plate (e.g., A spectacle blind or skillet blind) that completely covers the bore and is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Burn Permit is the employer's written authorization to perform operations capable of providing a source of ignition (e.g., riveting, welding, cutting, burning, and heating).

Confined Space

1. Is a space large enough and so configured that an employee can bodily enter and perform assigned work;
2. Has limited or restricted means for entry or exit (e.g., Tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
3. Is not designed for continuous employee occupancy.

Below are examples of confined spaces that may exist:

- Storm drain pipes
- Sewers
- Vaults
- Storage tank
- Utility pipelines
- Manholes
- Large vacuum vessels
- Transformer tanks

Confined Space Program (permit required confined space program) is the overall program for controlling and, where appropriate, protecting employees from permit space hazards and for regulating employee entry into permit spaces.

Controlling Contractor is the employer that has overall responsibility for construction at the worksite. Note: If the controlling contractor owns or manages the property, then it is both a controlling employer and a host employer.

Double block and bleed is the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Egress, limited is any configuration, which makes it difficult for an entrant to exit quickly, such as hatch location (ceiling, floor, wall) which requires ladders and hoists, interior construction (low overhead, crawl spaces, ductwork, closure devices which may be difficult to use), changing conditions (web paths, scrap buildup, open or closed doors).

Emergency is any occurrence (including any failure of hazard control or monitoring of equipment) or internal or external event to the permit space that could endanger entrants.

Engulfment is the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entry is the action by which a person passes through an opening into a high-hazard confined space. Entry includes conducting work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Entry Permit is the written or printed document that is provided by the employer to allow and control entry into a permit space.

Entry Supervisor is the person (e.g., The employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present in a permit space where entry is planned, authorizing entry, and overseeing entry operations, terminating entry. The duties of the entry supervisor may be passed from one individual to another during an entry operation if proper communication is observed.

Hazard is a possible source of danger with the potential for personal injury.

Hazardous Atmosphere is an atmosphere that may expose employees to the risk of death, incapacitation, impairment of the ability to self-rescue (i.e., Escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist exceeding 10% of its lower flammable limit (LFL).
- Airborne combustible dust at a concentration that meets or exceeds its LFL.
    - NOTE: This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 ft or less.
- Atmospheric oxygen concentration below 19.5% or above 23.5%. The atmospheric concentration of any substance for which a dose or permissible exposures limit is published in a DOE-mandated health and safety standard.
    - NOTE: An atmospheric concentration of any substance that is noticeable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.
- Any other atmospheric condition that is immediately dangerous to life or health. Other sources of information (e.g., Material safety data sheets that comply with the Hazard Communication Standard,

29 CFR 1910.1200, published information, and internal documents,) can provide guidance on establishing acceptable atmospheric conditions for air contaminants that OSHA has not yet determined a dose or the permissible exposure limit.

Immediately Dangerous to Life or Health refers to any condition that poses an immediate or delayed threat to life, or that would cause irreversible adverse health effects, or that would interfere with an individual's ability to escape unaided from a permit space. NOTE: Some materials (e.g., Hydrogen fluoride gas and cadmium vapor) may produce immediate transient effects that, even if severe, may pass without medical attention but are followed by sudden, possibly fatal, collapse 12-72 hours after exposure. The victim "feels normal" from recovery from transient effects until he/she collapses. Such materials in hazardous quantities are considered "immediately" dangerous to life or health.

Inerting is displacement of the atmosphere in a permit space by a noncombustible gas (e.g., Nitrogen) to such an extent that the resulting atmosphere is noncombustible. NOTE: This procedure produces an oxygen-deficient atmosphere that is immediately dangerous to life or health.

Isolation is the process by which a permit space is removed from service and completely protected against the release of energy and material into that space by means such as

- Blanking or blinding
- Misaligning or removing sections of lines, pipes, or duct
- Using a double-block-and-bleed system
- Locking or tagging out all sources of energy
- Blocking or disconnecting all mechanical linkages

Liquid, Flammable a class I liquid, which is a liquid having a flash point below 100oF (37.8°C) and having a vapor pressure not exceeding 40 psi at 100°F. Class I liquids are subdivided into three classes: Class IA, Class IB, and Class IC. See NFPA 30.

Maximum Residence Time is the maximum amount of time an entry team is allowed to work within the confined space.

NIOSH is the National Institute for Occupational Safety and Health which was formed in 1971 to conduct research, develop educational and training resources, and develop criteria for recommended standards in the area of occupational safety and health. NIOSH is part of the Centers for Disease Control (CDC), and the Public Health Service under the Department of Health and Human Services in the executive branch of the U.S. Federal Government.

Non-Permit Required Confined Space is a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Oxygen-Deficient Atmosphere is an atmosphere containing less than 19.5% oxygen by volume. Lower Flammable Limit (LFL) -For combustible liquids, LFL is the minimum concentration of vapor in air, which will

H-J CONFINED SPACE EVALUATION FORM—3010 & EPC BUILDING			
Department:		**Confined Space #:**	
Description of Space:			

propagate a flame if ignited. Each flammable or combustible liquid has a range of concentration of its vapor in air within which it will bum or explode. Concentrations below the LFL are too lean to burn or explode, and those above the upper flammable limit (UFL) are too rich to burn or explode. Expressed in percentage by volume of vapor in air, the point at which a fire or explosion potential begins to exist is 100%LFL. See "%LFL." Also referred to as Lower Explosive Limit (LEL) or Upper Explosive Limit (UEL).

Oxygen-Enriched Atmosphere is an atmosphere containing more than 23.5% oxygen by volume.

PEL (Permissible Exposure Unit), OSHA is the legal exposure limits established in U.S. Government regulations.

Permit-Required Confined Space is a confined space that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere.
- Contains material that has the potential to engulf an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section.
- Contains any other recognized serious safety or health hazard.

Rescue Service are personnel designated to enter confined spaces to rescue employees from permit spaces.

Retrieval System is the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Entry Points	Dimensions
1.	
2.	

A. Confined Space Criteria
☐ Large enough to bodily enter and perform work
☐ Has limited means of entry and exit
☐ Not designed for continuous occupancy
If all the boxes are checked, then this space meets the definition of a confined space. Complete the remaining sections. If any of these boxes are not checked, then it is not a confined space. Skip to Section E and check the appropriate box.

B. Hazard Evaluation – check all that apply under normal circumstances
☐ Hazardous atmosphere potential
☐ Engulfment hazard

☐ Has internal configuration that could trap or asphyxiate entrant by inwardly converging walls (e.g., hopper)
☐ Contains electrical, mechanical, hydraulic, or pneumatic energy that could endanger entrants
☐ Any other safety/health hazards that could cause serious injury, acute illness, or death

C. Hazard Identification and Control Measures	
Potential Hazards	**Requirement to Eliminate Hazards**

D. Air Test Record for Space				
Air Monitor Number				
Date				
Time				
Oxygen Level (19.5% to 23.5%)				
Lower Flammable Limit (<10%)				
Carbon Monoxide (<35%)				
Toxic Air Contaminants				
Volatile Organic Compounds (VOCs)				
NOTES:				

E. Classification of Confined Space	
☐ Not a Confined Space (If any boxes in Section A were unchecked)	
☐ Non-Permit Required Confined Space (If all boxes are checked in Section A, but no boxes checked in Section B)	
☐ Permit Required Confined Space (If any box is checked in Section B)	
☐ Permit Required Confined Space - Alternate Entry (The only hazard is the presence or potential presence of a hazardous atmosphere, and all other hazards can be eliminated without entry into the space)	
☐ Permit Required Confined Space Reclassified to Non-Permit Required (Contains no potential atmospheric hazards, and all other hazards within the space can be eliminated without entry into the space)	
☐ Permit Required Confined Space – Access prohibited H-J Employees	

F. Requirements for Entry into this Space					
REQUIREMENTS	**YES**	**NO**	**REQUIREMENTS**	**YES**	**NO**

H-J CONFINED SPACE ENTRY PERMIT

3010 or EPC (circle)			
Department:		Confined Space #:	
Description of Confined Space:			
Purpose of entry:			
Date Issued:		Time Issued:	Estimated Duration:

Attendant			Emergency rescue notification		
Secure area (e.g., signs and barriers)			Powered Communications (e.g., radio)		
Initial and continuous air monitoring			Communication system to summon rescue		
Lockout-tagout required			Hoisting extrication equipment		
Blanked off hazardous piping			Fall arrest harness, lifeline, or tripod		
Double block and bleed hazardous piping			Respirator (list type)		
Purge, flush, or vent space prior to entry					
Continuous mechanical ventilation			Personal protective equipment – list below:		
Ladder					
Fire extinguisher					
Non-sparking tools					
Special lighting (e.g., explosion proof)					
Block lid or door open					

G. Signatures of persons completing this assessment:		
Print Name:	Signature:	Date:
Print Name:	Signature:	Date:

Notice – the above information pertains to general conditions of the space and routine entries. In the event of extenuating circumstances such as welding, cutting, pipe or line bursts, use of chemicals, etc., the requirements to enter the space may change. The authorizing supervisor must determine if additional precautions (e.g., mechanical forced air or PPE) are required to eliminate or control hazards.

PRINT NAMES				
ENTRY SUPERVISOR	1)		2)	
ENTRY ATTENDANTS	1)		2)	
AUTHORIZED ENTRANTS	1)	2)	3)	4)

Pre-Entry Check List
☐ Entry supervisor reviewed the Confined Space Evaluation and informed entry team of equipment needs and precautions
☐ Verify all involved personnel are trained
☐ All involved personnel informed of any additional potential hazards created by the task
☐ Initial air monitoring completed, and levels are acceptable.

☐ Notify appropriate persons of the location where entry is taking place (security, rescue team, supervisors, etc.)

I have verified the above requirements have been met.

Entry Supervisor's Signature: _____

Additional Potential Hazards Generated by Entry Operations	YES	NO
Will any activities that could create a hazard be conducted inside the confined space, such as welding or breaking a line? If yes, explain:		
Will any chemicals (e.g., solvents, cleaners or adhesives) that could create a hazard be brought into the space? If yes, specify:		
Are there any conditions in or around the space that could adversely affect anyone who enters it? If yes, describe:		

Potential hazards (Normally Part of Space or Generated by Entry Operations)

POTENTIAL HAZARDS	REQUIREMENTS TO ELIMINATE HAZARD	INITIAL WHEN COMPLETED

COMMENTS:

AIR MONITORING

Manufacturing Name:	Model #	Serial #
Was Air monitor checked for proper operation (bump test) prior to use? ☐ Yes ☐ No		Calibration Date:

ATMOSPHERIC TEST	**Permissible Entry Levels**	**TIME**	**PRE-ENTRY**	**Continuous Air Monitoring Required – Record Every Hour**				
Percent Oxygen (O2)	**19.5% to 23.5%**							
Lower Explosive Limit (LEL)	**< 10%**							
Carbon Monoxide (CO)	**< 35 ppm**							
Hydrogen Sulfide (H2S)	**< 10 ppm**							
Volatile Organic Compounds (VOCs)	**<0.5 PPM**							

Specific Requirements for Entry into this Space

REQUIREMENTS	**YES**	**NO**	**REQUIREMENTS**	**YES**	**NO**
Attendant			Powered communications (e.g., radio)		
Secure area (e.g., signs and barriers)			Hot work permit		
Initial and continuous air monitoring			Continuous mechanical ventilation		
Lockout/Tagout			Hoisting extrication equipment		
Blanked off hazardous piping			Full body harness and lifeline		
Double block and bleed hazardous piping					
Purge, flush or vent space prior to entry			**Personal Protective Equipment**		
Ladder			Respirator - list type:		
Non-sparking tools			Hard hat		
Fire extinguisher			Gloves – list type:		
Special lighting (e.g., explosion proof)			Eye protection		

Block lids or doors in open position			Hearing protection		
SCBA or supplied air for entrant			Other -		
Emergency rescue notification			Other -		

Reclassification to Non-Permit Required Confined Space Certification

Can all hazards be eliminated without entering the confined space? ☐ Yes ☐ No If yes, the space can be reclassified to a non-permit required space for the duration of the entry.

The undersigned has verified that all hazards have been eliminated, no atmospheric hazards exist, and the work performed in the space will not create additional hazards.

ENTRY SUPERVISOR'S SIGNATURE:	Time:	Date:

Emergency Response Required? ☐ Yes ☐ No

If emergency response is required, call the rescue service prior to entry to verify availability.

Name of rescue service contacted: Is rescue service available during entry? ☐ Yes ☐ No

If rescue service is required but not available, entry must not occur.

Entry Termination

This permit has been terminated for the following reason: ☐ Work Completed ☐ Canceled – describe why:

Entry Supervisor's Signature:	Time:	Date:

Entry supervisor must verify this permit is properly completed and returned to the EHS department.

Permit Review—List any actions or re-training recommended for this confined space:

Section 20—Bloodborne Pathogens Program

1. Program Requirements

H-J will ensure that the hazards associated with exposures to blood or other potentially infectious materials (OPIM) are evaluated and that information concerning their hazards is transmitted to all employees. This Program is intended to address the issues of evaluating these potential hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees. This program will be maintained in accordance with OSHA Regulation 29 CFR 1910.1030. In addition, ***H-J*** will review and evaluate this program on an annual basis, when changes occur to the regulations, when operational changes occur that require a revision of this document, or when there is an accident or near miss that relates to this area of safety.

2. Responsibility

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors

are required to ensure their employees are aware of the contents of this program, have access to this program, and have received basic awareness training before assignment to work.

3. TRAINING REQUIREMENTS

All employees of ***H-J*** will receive basic awareness training to ensure they can recognize the hazards of Bloodborne pathogens. In addition, employees specifically covered by this program are trained at the time of initial assignment to tasks where occupational exposure is likely to occur, and every year thereafter.

3.1. Training will include:

3.1.1. The standard and its contents. ***H-J*** Bloodborne Pathogen Safety Program and methods for obtaining a copy.

3.1.2. The epidemiology and symptoms of Bloodborne diseases.

3.1.3. The modes of transmission of Bloodborne pathogens.

3.1.4. The recognition of tasks that may involve exposure.

3.1.5. The use and limitations of methods to reduce exposure, for example engineering controls, work practices and personal protective equipment (PPE).

3.1.6. The types, basis of selection, use, location, removal, handling, decontamination, and disposal of PPE.

3.1.7. The Hepatitis B vaccination, including efficacy, safety, method of administration, benefits, and that it will be offered free of charge.

3.1.8. The appropriate actions to take and people to contact in an emergency involving blood or OPIM.

3.1.9. The procedures to follow if an exposure incident occurs, including the method of reporting and medical follow-up.

3.1.10. The evaluation and follow-up required after an employee exposure incident.

3.1.11. The signs, labels, and color-coding systems.

3.2. Refresher training. The training content shall be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner.

3.2.1. Retraining shall be provided for all employees whenever there is a change in their job assignments, a change in machines, or equipment or processes that present a new hazard.

3.2.2. Additional retraining shall be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employees' knowledge.

3.3. Certification. ***H-J*** shall certify that employee re-training has been accomplished and is being kept up to date. The certification shall contain each employee's name, supervisor or instructor's name and dates of training.

4. EXPOSURE DETERMINATION

4.1. ***H-J*** has determined that only employees who have been trained in CPR and First Aid Procedures have the likelihood to have occupational exposure to blood or OPIM. This exposure determination is made without regard to the use of personal protective equipment (i.e., employees are considered to be exposed even if they wear personal protective equipment). In the event that additional employees are designated as having a high likelihood of occupational exposure to blood or OPIM the guidelines detailed in this program will be followed as necessary to ensure employee safety. The SAFETY DEPARTMENT will ensure that all aspects of this program are enforced.

5. ENGINEERING AND WORK PRACTICE CONTROLS

5.1. Engineering and work practice controls will be used to eliminate or minimize exposure to employees at this company. Where occupational exposure remains after institution of these controls, employees are required to wear personal protective equipment. The engineering controls will be evaluated at least annually to ensure they are effective. At ***H-J*** the following engineering controls are used:

5.2. Universal Precautions: All body fluids, tissues, or materials contaminated with blood and OPIM will be considered and treated as infectious.

5.3. Placing sharp items (e.g., needles, broken glass, sharp debris, etc.) in puncture-resistant, leak proof, labeled containers.

5.4. Specimens of blood such as rags, clothing, and bandages, or other potentially infectious materials must be put in leak proof bags for handling.

5.5. Removing soiled, or contaminated PPE as soon as possible.

5.6. Cleaning and disinfecting all equipment and work surfaces potentially contaminated with blood or OPIM. Note: We use an antibacterial solution.

5.7. Thorough hand washing with soap and water immediately after providing care or provision of antiseptic towelettes or hand cleanser where handwashing facilities are not available.

5.8. Prohibition of eating, drinking, smoking, applying cosmetics, handling contact lenses, and so on in work areas where exposure to infectious materials may occur.

6. HAND WASHING FACILITIES

Hand washing facilities are available to employees who have exposure to blood or OPIM. Sinks for washing hands after occupational exposure are near locations where exposure to bloodborne pathogens could occur.

6.1. When circumstances require hand washing and facilities are not available, either an antiseptic cleanser and paper towels or antiseptic toilettes are provided. Employees must then wash their hands with soap and water as soon as possible.

6.2. Supervisors make sure that employees wash their hands and any other contaminated skin after immediately removing personal protective gloves, or as soon as feasible with soap and water.

7. WORK AREA RESTRICTIONS

7.1. In work areas where there is a reasonable likelihood of exposure to blood or OPIM, employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on countertops or bench tops where blood or OPIM are present.

8. PERSONAL PROTECTIVE EQUIPMENT

All PPE used at this facility is provided without cost to employees. PPE for employees designated as having a high likelihood of occupation exposure to blood or OPIM is chosen based on the anticipated exposure. The protective equipment is considered appropriate only if it does not permit blood or OPIM to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time, which the protective equipment will be used.

8.1. Employees must remove all garments, which are penetrated by blood immediately or as soon as possible.

8.2. They must remove all PPE before leaving the work area. When PPE is removed, employees place it in a designated container for disposal, storage, washing, or decontamination.

8.3. Gloves. Employees must wear gloves when they anticipate hand contact with blood, OPIM, non-intact skin, and mucous membranes, when handling or touching contaminated items or surfaces.

8.3.1. Disposable gloves used at this facility are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

8.3.2. Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised.

8.3.3. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

8.3.4. Hypoallergenic gloves, glove liners, powerless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

8.4. Eye and Face Shields. Employees must wear masks in combination with eye protective devices, such as goggles or glasses with solid side shield, or chin length face shields, whenever splashes, splatter, or droplets of blood or OPIM may be generated and reasonably anticipated to contaminate eye, nose, or mouth.

9. HOUSEKEEPING

9.1. All Facility must remain clean and decontaminated at all times.

9.2. Sharp debris such as metal or glass must be placed in a proper container to avoid accidental lacerations.

9.3. Debris that may be contaminated will not be picked up directly with the hands.

9.4. Reusable sharps that are contaminated with blood or OPIM are to be stored or processed in a manner that requires employees to reach by hand into the containers where sharps have been placed.

10. Handling Regulated Wastes

When handling regulated wastes, other than contaminated needles and sharps, we make sure it is:

10.1. Placed in containers, which are closeable, constructed to contain all contents, and prevent fluid leaks during handling, storage, transportation, or shipping.

10.2. Labeled or color coded and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

Note: Disposal of all regulated waste is in accordance with applicable Federal, State, and Local regulations. The SAFETY DEPARTMENT will be responsible for making arrangements to properly dispose of regulated wastes.

11. Recordkeeping

11.1. Training records shall be maintained for three years from the date of training. The SAFETY DEPARTMENT will ensure that medical records are maintained. Medical records shall be maintained in accordance with OSHA Standard 29 CFR 1910.20. These records shall be kept confidential and must be maintained for at least the duration of employment plus 30 years. The records shall include the following:

11.1.1. The name and social security number of the employee.

11.1.2. A copy of the employee's HBV vaccination status, including the dates of vaccination.

11.1.3. A copy of all results of examinations, medical testing, and follow-up procedures.

11.1.4. A copy of the information provided to the healthcare professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure.

11.2. Availability. All employee records shall be made available to the employee in accordance with 29 CFR 1910.20. All employee records shall be made available to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and the Director of the National Institute for Occupational Safety and Health upon request. Medical records must have written consent of employee before released.

12. Hepatitis B Vaccination Program

H-J offers the Hepatitis B vaccine and vaccination series to all employees who have occupational exposure to Bloodborne pathogens, and post exposure follow-up to employees who have had an exposure incident.

12.1. Participation in a pre-screening program is not a prerequisite for receiving Hepatitis B vaccination. If the employee initially declines Hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the vaccination will be made available. All employees who decline the Hepatitis B vaccination offered must sign the OSHA-required waiver indicating their refusal.

12.2. If a routine booster dose of Hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster doses will be made available.

13. POST-EXPOSURE EVALUATION AND FOLLOW-UP

All exposure incidents are reported, investigated, and documented. When the employee is exposed to blood or OPIM, the incident is reported to the Safety Department. When an employee is exposed, he or she will receive a confidential medical evaluation and follow-up, including at least the following elements:

13.1. Documentation of the route of exposure, and the circumstances under which the exposure occurred.

13.2. Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law.

13.3. The individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV or HIV, infectivity. If consent is not obtained, Management establishes that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, will be tested and the results documented.

13.4. When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

13.5. Results of the source individual's testing are made available to the exposed employee, and the employee is informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

13.6. Collection and testing of blood for HBV/HIV serological status will comply with the following:

13.6.1. The exposed employee's blood is collected as soon as possible and tested after consent is obtained.

13.6.2. The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status.

13.7. All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up according to the OSHA standard.

13.8. The healthcare professional responsible for the employees' Hepatitis B vaccination is provided with the following:

13.8.1. A copy of 29 CFR 1910.1030.

13.8.2. A written description of the exposed employee's duties as they relate to the exposure incident.

13.8.3. Written documentation of the route of exposure and circumstances under which exposure occurred.

13.8.4. Results of the source individual blood testing, if available.

13.8.5. All medical records relevant to the appropriate treatment of the employee including vaccination status.

13.9. ***H-J*** obtains and provides the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

13.9.1. The healthcare professional's written opinion for HBV vaccination must be limited to whether HBV vaccination is indicated for an employee, and if the employee has received such vaccination.

13.10. The healthcare professional's written opinion for post-exposure follow-up is limited to the following information:

13.10.1. A statement that the employee has been informed of the results of the evaluation.

13.10.2. A statement, that the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.

Note: All other findings or diagnosis shall remain confidential and will not be included in the written report.

14. LABELS AND SIGNS

Biohazard labels will be affixed to containers of regulated waste, refrigerators and freezers containing blood or OPIM, and other containers used to store, transport or ship blood or OPIM. The universal biohazard symbol is used. The label is fluorescent orange or orange-red. Red bags or containers may be substituted for labels. Blood products that have been released for transfusion or other clinical use are exempted from these labeling requirements.

Section 20—Heat Illness Prevention Plan

The purpose of this plan is to protect our employees from the hazards of hot working environments. Work activities that could potentially expose our employees to these hazards include: All work activities in the ***H-J*** facility.

SCOPE—This plan implements efficient and safe work practices that will prevent both indoor and outdoor heat-related illnesses among employees at our workplace. It will be used for training new employees and for the annual refresher training of employees. All employees potentially exposed to hot working environments are subject to his plan.

RESPONSIBILITIES: All employees are responsible for protecting themselves from heat illnesses by following these guidelines for prevention and immediately reporting any signs or symptoms to his or her supervisor. SAFETY DEPARTMENT is responsible for conducting initial training with new employees and for the annual refresher training. Supervisors are responsible for administering the provisions of this plan.

BACKGROUND Heat-related illnesses can happen if workplace activities in a hot environment overwhelm the body's ability to cool itself. This becomes more likely if any of the risk factors are present. Examples include working in a hot environment without adequate access to water for rehydration, working in protective gear that does not allow air circulation across the skin, or working where the humidity is too high for sweat to evaporate.

RISK FACTORS The following are environmental risk factors for heat illness:
- Air temperature above 90 degrees F.
- Relative humidity above 40 percent
- Radiant heat from the sun and other sources
- Conductive heat sources such as dark-colored work surfaces
- Lack of air movement
- Physical effort needed for the work
- Use of nonbreathable protective clothing and other personal protective equipment

The following are personal risk factors for heat illness:
- Lack of acclimation to warmer temperatures
- Poor general health
- Dehydration
- Alcohol consumption
- Caffeine consumption
- Previous heat-related illness
- Use of prescription medications that affect the body's water retention or other physiological responses to heat such as beta blockers, diuretics, antihistamines, tranquilizers, and antipsychotics.

HEAT-RELATED ILLNESSES

1. Heat rash is the most common health problem in hot work environments. It is caused by sweating and looks like a red cluster of pimples or small blisters. Heat rash usually appears on parts of the body that overlap or rub other parts of the body, such as in the groin area, under the arms or breasts, and in knee or elbow creases. If an employee has symptoms of heat rash, provide a cooler, less humid work environment, if possible. Advise the employee to keep the area dry and not to use ointments and creams that make the skin warm or moist, which can make the rash worse.
2. Heat exhaustion can best be prevented by being aware of one's physical limits in a hazardous environment on hot, humid days. The most important factor is to drink enough clear fluids (especially water, not alcohol or caffeine) to replace those lost to perspiration. Signs and symptoms of heat exhaustion typically include:
   - Profuse sweating
   - Weakness and fatigue
   - Nausea and vomiting
   - Muscle cramps (associated with dehydration)
   - Headache
   - Light-headedness or fainting; fainting or loss of consciousness is potentially serious and should be treated as a medical emergency. When you recognize heat exhaustion symptoms in an employee, you must intervene; stop the activity, and move the employee to a cooler environment. Cooling off and rehydrating with water (or electrolyte replacing sports drinks) is the cornerstone of treatment for heat exhaustion. If the employee resumes work before their core temperature returns to normal levels, symptoms may quickly return.

If there is no intervention and the body's temperature regulation fail, heat exhaustion can rapidly progress to heat stroke, a life-threatening condition!

3. Heat stroke requires an immediate emergency medical response. The person may stop sweating, become confused or lethargic, and may even have a seizure! The internal body temperature may exceed 106 degrees F. Signs and symptoms of heat stroke typically include:
- Absence of sweating
- Dry skin
- Agitation or strange behavior
- Dizziness, disorientation, or lethargy
- Seizures or signs that mimic those of a heart attack Ensure that emergency responders are summoned immediately if heat stroke is suspected. While waiting for emergency responders to arrive, cool the employee; move the employee to an airconditioned environment or a cool, shady area; and help the employee remove any unnecessary clothing. Do not leave the employee unattended. Heat stroke requires immediate medical attention to prevent permanent damage to the brain and other vital organs that can result in death.

PREVENTING HEAT-RELATED ILLNESSES

- Gradually increase workloads and allow more frequent breaks during the first week of work so that employees become acclimatized to higher temperatures, especially those who are new to working in the heat or have been away from that work for a week or more.
- Encourage employees to frequently drink small amounts of water before they become thirsty to stay hydrated. During moderate activity, in moderately hot conditions, employees should drink about 8 ounces of liquid every 15 to 20 minutes. Employees can monitor their hydration with a urine chart. Urine should be clear or slightly colored; dark urine is a warning sign! See urine color chart.
- Encourage employees to eat regular meals and snacks as they provide enough salt and electrolytes to replace those lost through sweating as long as enough water is consumed.
- Provide a buddy system where employees encourage each other to drink water, use shade to stay cool, and to watch each other for symptoms of heat-related illness.
- Educate employees that drinking extreme amounts of water can also be harmful (more than 12 quarts in a 24-hour period).
- Schedule frequent rest periods with water breaks in shaded or air-conditioned recovery areas. Note that air conditioning does not result in loss of heat tolerance.
- Ensure employees are aware of the signs of heat-related illnesses and encourage them to report immediately that they or their co-workers show symptoms.
- Monitor weather reports daily and reschedule jobs with high heat exposure to cooler times of the day, if possible. Be extra vigilant when air temperatures rise quickly. When possible, schedule routine maintenance and repair projects for the cooler parts of the year.
- Provide shade or cool areas for breaks Water is located throughout the work area.

Locations include: Breakroom
Shade or cooling areas are located: Breakroom

BEST PRACTICES COULD INCLUDE PROVIDING EMPLOYEES WITH:

- Containers that hold ice or otherwise keep drinking water and other beverages cold.
- Chilled beverages such as electrolyte type sports drinks. Discourage caffeine consumption.
- Cold treats at break time such as popsicles, ice cream, or fruit with high water content (watermelon, grapes, oranges).
- A cooling area with conditioned air and cold water to consume.
- Evaporative accessories (cooling neck wraps, head bands).

Section 21—Back Safety Program

1. Program Requirements

H-J has implemented this program intended to address the issues of evaluating and identifying back injury hazards, evaluating engineering controls, work practices, administrative controls, and establishing appropriate procedures. This program will be maintained in accordance with OSHA Regulations 29 CFR 1926 and 1910. In addition, ***H-J*** will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

2. Responsibility

The SAFETY DEPARTMENT is the program coordinator, acting as the representative of the company owners, who has the ultimate responsibility for all facets of this program. The SAFETY DEPARTMENT has full authority to make necessary decisions to ensure success of the program. ***H-J*** has authorized all Supervisors or any Employee to halt any operation of ***H-J*** where there is danger of serious personal injury. Supervisors are required to ensure their employees are aware of the contents of this program and maintain a copy of the program at the facility, provide their subordinates with the necessary personal protective equipment, and notify the SAFETY DEPARTMENT if there is a potential hazard.

3. Training Requirements

All affected employees will receive awareness training that will describe the basic hazards of lifting and common lifting techniques. Prior to job assignment, ***H-J*** will provide training to ensure that the hazards associated with predestinated job skills are understood by employees and that the knowledge and skills required for the safe application and usage of workplace procedures and equipment, are acquired by employees.

Each affected employee will receive training in the recognition of back injury hazards involved with a particular job, and the methods and means necessary for safe work.

3.1. Training course content will cover, at a minimum, the following:

3.1.1. Back hazards associated with the job

3.1.2. Lifting techniques

3.1.3. Potential health effects of back injury

3.1.4. Back injury precautions

3.1.5. Proper use of protective clothing and equipment

3.1.6. Use of engineering controls

3.2. Refresher training. The training content shall be identical to initial training. Refresher training will be conducted on an annual basis or when the following conditions are met, whichever event occurs sooner.

3.2.1. Retraining shall be provided for all employees whenever there is a change in their job assignments, a change in machines, or equipment or processes that present a new hazard.

3.2.2. Additional retraining shall be conducted whenever a periodic inspection reveals, or whenever ***H-J*** has reason to believe, that there are deviations from or inadequacies in the employees' knowledge.

3.3. Certification. ***H-J*** shall certify that employee re-training has been accomplished and is being kept up to date. The certification shall contain each employee's name, supervisor or instructor's name and dates of training.

4. HAZARD PREVENTION AND CONTROL

4.1. Job Hazard Analysis. When necessary, job hazard analysis will be performed at the beginning of new jobs. Supervisors will be trained to look for potential back injury risks. This analysis will help to verify risk factors and to determine if risk factors for a work position have been reduced or eliminated as much as possible.

4.2. Engineering Solutions. ***H-J*** understands that engineering solutions, where feasible, are the preferred method of control for lifting hazards. The focus of this program is to make the job fit the person, not to make the person fit the job. This is accomplished whenever possible by redesigning the workstation, work methods, or tool(s) to reduce the demands of the job, including high force, repetitive motion, and awkward postures.

4.3. Administrative Controls. Company administrative controls will be used to reduce the duration, frequency, and severity of exposures to lifting hazards, which can cause back injury. Examples of administrative controls include the following:

4.3.1. Reducing the amount of exposure per employee by such means as decreasing production demand and limiting overtime work.

4.3.2. Providing rest pauses to relieve fatigued muscles. The length of time needed depends on the task.

4.3.3. Increasing the number of employees assigned to a task to alleviate severe conditions, especially in lifting heavy objects.

4.3.4. Using job rotation with caution and as a preventive measure, not as a response to symptoms. The principle of job rotation is to alleviate physical fatigue and stress of a particular set of muscles rotating employees among other jobs that use different muscles. Providing sufficient numbers of

standby/relief personnel to compensate for foreseeable upset conditions on the line (e.g., loss of workers).

4.3.5. Implementing job enlargement. Having employees perform broader functions which reduce the stress on specific muscle groups while performing individual tasks.

4.4. Safe Lifting Techniques. First, use a pushcart or other material-handling device. Second, ask a co-worker for help if no device is available. If you must lift alone here are some tips:

4.4.1. Before starting to lift or carry anything, check your entire walkway to make sure your footing will be solid.

4.4.2. Your shoes should give you good balance, support and traction.

4.4.3. Keep loads as close to your body as possible.

4.5. The following situations show basic lifting techniques to avoid injury.

4.5.1. Lifting or lowering from a high place

4.5.1.1. Stand on a platform instead of a ladder

4.5.1.2. Lift the load in smaller pieces, if possible

4.5.1.3. Slide the load as close to yourself as possible before lifting

4.5.1.4. Grip firmly and slide it down

4.5.1.5. Get help when you need it to avoid injury

4.5.2. Lifting from awkward places

4.5.2.1. Get as close to the load as possible

4.5.2.2. Keep back straight, stomach muscles tight

4.5.2.3. Push buttocks out behind you

4.5.2.4. Bend your knees

4.5.2.5. Use leg, stomach, and buttock muscles to lift -- not your back

4.5.3. Lifting drums, barrels, and cylinders

4.5.3.1. Use mechanical assists

4.5.3.2. Be aware that loads can shift

4.5.3.3. Get help if load is too heavy

4.5.4. Awkward objects

4.5.4.1. Bend your knees with feet spread

4.5.4.2. Grip the top outside and bottom inside corners

4.5.4.3. Use your legs to lift, keeping back straight

4.5.5. Shoveling

4.5.5.1. Make sure your grip and balance are solid

4.5.5.2. Tighten your abdomen as you lift

4.5.5.3. Keep the shovel close to your body

4.5.5.4. Use the strength of your thigh muscles to bring you to an upright position

4.5.5.5. Increase your leverage by keeping your bottom hand low and toward the blade

4.5.6. General safety tips

4.5.6.1. Do not lift objects over your head.

4.5.6.2. Do not twist your body when lifting or setting an object down.

4.5.6.3. Do not reach over an obstacle to lift a load.