



Safety Rules Book



Safety Rules Book



Safety Rules Book

INTRODUCTION

The Shasta - SRM Safety Rules Book has been developed to consolidate important safety and health information, safe work practices, and regulatory requirements into a standardized employee reference manual.

The Safety Rules Book incorporates our own operating experience with those from other leading companies within the electric generating industry.

We believe that every incident is preventable, and we are depending on every individual to use good judgement and work practices to avoid injuries and accidents. Knowing and following the safety rules is a primary responsibility of every employee.



Safety Rules Book

ACKNOWLEDGEMENT OF RECEIPT OF THE SAFETY RULES BOOK

I acknowledge that I have been trained on the Shasta - SRM Safety Rules Book and that a copy of the Safety Rules Book is available to me for reference at any time upon my request. I understand that this Safety Rules Book summarizes Shasta – SRM’s Health and Safety Rules and Instructions, and that it is available to me solely for my information.

I also understand that Shasta - SRM may add, modify, or rescind any of the rules and instructions at any time; except for those required by law, and that it is my responsibility to remain current on any updates to the Safety Rules Book. I further understand where any site-specific rules and instruction are more stringent than the minimum requirements listed in the Safety Rules Book, the site-specific rules shall apply.

I acknowledge that it is my responsibility to read and be familiar with the contents of the Safety Rules Book, and to reference it as needed anytime clarification or review of the Health and Safety rules is required. Any questions regarding the contents of the Safety Rules Book should be directed to your Supervisor, Manager or OH&S Manager for immediate clarification.

I understand and acknowledge that I am expected to always perform my work duties safely and to comply with the rules and instructions contained in the Safety Rules Book.

(Type or Print Name of Employee)

(Employee Signature)

(Date)

This form must be signed and returned within 10 days of receipt.



Safety Rules Book

Table of Contents

1.0 GENERAL WORKPLACE SAFETY.....	8
1.1. Primary Responsibilities.....	8
1.2. Personal Behavior.....	9
1.3. Job Safety Briefings	10
1.4. Personal Health Safeguarding	11
1.5. Personal Safety Rules.....	11
1.6. Buddy System.....	12
1.7. Worksite Communications.....	13
1.8. Worksite Housekeeping and Security	15
2.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)	17
2.1. Required PPE Procedures	17
2.2. General Minimum PPE Requirements	18
2.3. Task and Exposure Specific Minimum PPE	21
3.0 WORK AREA PROTECTION.....	27
3.1. Employee Responsibility	27
3.2. Office Safety.....	27
3.3. Walking/Working Surfaces	27
3.4. Machine and Equipment Guarding.....	28
3.5. Material Handling and Storage.....	28
3.6. Ladders	30
3.7. Scaffolds	33
3.8. Elevated Work Platforms.....	Error! Bookmark not defined.
4.0 SAFE WORK PROCEDURES.....	36



Safety Rules Book

4.1. Change Management.....	36
4.2. Hazard Communications/Chemical Safety.....	36
4.3. Lockout/Tagout (LOTO)	37
4.4. Permit-Required Confined Space (PRCS) Entry	37
4.5. Hot Work Permits	38
5.0 ELECTRICAL SAFETY.....	39
5.1. General Electrical Safety Rules.....	39
5.2. Tools and Equipment	39
5.3. Wiring, Circuits, and Electric Equipment	39
5.4. Batteries.....	39
5.5. Generators	40
5.6. Motor Control Centers (MCCs) and Breakers	40
5.7. Electrical-Qualified Persons	40
6.0 VEHICLE AND EQUIPMENT OPERATION	42
6.1. Company Vehicles and Equipment	42
6.2. Trucks and Pickups, SUVs, and Cars	43
6.3. Forklifts.....	44
6.4. Mobile “Yellow Iron” Equipment	45
6.5. Cranes, Hoists, and Rigging.....	46
7.0 POWER PRODUCTION	49
7.1. Fuel and Ash Handling.....	49
7.2. Water Treatment	51
7.3. Boilers and Furnaces	52
7.4. Turbine-Generators.....	54
7.5. Lines, Piping, and Valves.....	54



Safety Rules Book

7.6. Emission Control and Monitoring Systems.....	55
7.7. Control Rooms	55
8.0 MAINTENANCE ACTIVITIES – MECHANICAL WORK	56
8.1. General Safety Rules for Tools and Equipment	56
8.2. Hand Tools.....	56
8.3. Portable Power Tools and Equipment.....	56
8.4. Jacking.....	59
8.5. Abrasive Blasting	60
8.6. Power Washers.....	60
8.7. Parts Cleaners/Washers	60
8.8. Use of Solvents, Resins, and Cleaners.....	61
8.9. Use of Aerosol Dispensers.....	61
8.10. Machine Shops	61
8.11. Grounds Keeping	61
8.12. Explosives	62
9.0 MAINTENANCE ACTIVITIES - HOT WORK.....	63
9.1. General Hot Work Safety	63
9.2. Ventilation	63
9.3. Personal Protective Equipment (PPE) for Hot Work	63
9.4. Fire Prevention.....	65
9.5. Fire Watch.....	66
9.6. Hot Work in Confined Spaces	67
9.7. Gas Welding and Cutting	67
9.8. Electric Arc Welding and Cutting.....	70



Safety Rules Book

10.0 EMERGENCY RESPONSE..... 74

 10.1. General Emergency Response 74

 10.2. Fire Prevention..... 74

 10.3. Bloodborne Pathogens..... 75

 10.4. Environmental Safety 76

11.0 HIGH RISK RULES 77

12.0 DEFINITIONS / ACRONYMS 78



Safety Rules Book

1.0 General Workplace Safety

1.1. Primary Responsibilities

Employees are responsible for performing work in accordance with Company safety rules and procedures, including:

- Maintaining a safe work environment for themselves and their coworkers.
- Participating in all required safety training, meetings, and drills.
- Supporting Company health and safety goals.
- Obeying instructions from supervisors and posted instructions and warnings.
- Obeying rules and procedures learned in training.
- Obeying rules in the Safety Rules Book.

Employees shall perform job tasks and operate equipment only when trained and authorized.

- In case of doubt or uncertainty, always put safety first and ask your supervisor for direction before proceeding.

Employees shall notify their supervisor when deviations from standard procedures or changes in the original scope of work are necessary.

- Always obtain authorization before proceeding.

Employees discovering a safety problem shall report the item and correct it immediately whenever possible.

- Employees shall notify their supervisor when a safety problem cannot be corrected immediately.
- Employees observing a safety hazard caused by a contractor that does not pose an immediate danger shall report the condition to a Shasta - SRM supervisor.
- Employees observing a safety hazard caused by a contractor that poses an immediate danger shall stop the work immediately and notify a Shasta - SRM supervisor.

Regardless of how minor it may appear; employees shall notify their supervisor as soon as possible of any work-related incident including:

- A near miss
- An occurrence involving the following—even when no injury is apparent:



Safety Rules Book

- Chemical contact with skin or eyes
- Muscle strains and sprains
- Incidents involving the head or back.
- An injury, whether or not it requires first aid.
- Equipment damage

1.2. Personal Behavior

Employees shall be fit for work and ready to perform the duties expected in their job.

Employees returning to work after work-related medical treatment shall provide to the OHS Manger or their supervisor a completed Return-To-Work (RTW) Form, signed by the treating physician, before beginning work.

Employees returning to work after non-work-related medical treatment shall provide to the OHS Manger or their supervisor documentation of medical release and any restrictions indicated before returning to work.

Employees shall work within any restrictions identified by the treating physician.

Employees may not be under the influence of drugs, alcohol, or other intoxicants while on Company premises. (This does not apply to the proper use of prescribed medication.)

Employees who are required to take prescription or non-prescription drugs that in any way may affect their job performance shall notify the OHS Manger or their supervisor of any restrictions resulting from use of prescribed medications. Employees shall make these notifications before returning to work.

Employees are required to wash their hands before smoking or chewing tobacco and may only smoke in designated areas.

Smoking is specifically forbidden in any posted areas and in the following locations:

- Ash areas
- Fuel storage areas
- Truck dumps



Safety Rules Book

- Near flammable and combustible liquid storage areas
- Warehouses
- Laboratories
- Lunchrooms
- Office areas
- Company vehicles or mobile equipment cabs

Employees shall not engage in horseplay at any time.

Employees shall not approach domesticated, wild or feral animals, including snakes, skunks, or birds, at any time – report all sightings to your Supervisor so appropriate wildlife control measures can be taken.

Employees shall not bring pets, including dogs, cats and other animals, on to Company property.

Employees may not possess firearms, concealed weapons, or fireworks while on Company premises.

Note: Only authorized contractors may possess and handle explosives.

1.3. Job Safety Briefings

Always attend and pay attention to all Job Safety Briefings.

Job Safety Briefings will be conducted by your supervisor or Work Group Leader in accordance with the Risk Assessment Program as required:

- Before the start of work
- When work conditions change
- Particularly when performing new, revised, non-routine, or high hazard tasks.

Proceed with work only if you understand the following, when applicable:

- Hazards associated with the job.
- Work procedures involved.
- Special precautions
- Energy source controls



Safety Rules Book

- Personal protective equipment (PPE) requirements.

Notify your Supervisor if the originally planned scope of work changes.

1.4. Personal Health Safeguarding

Do not use process water, cooling water, or other non-potable water for:

- Washing
- Drinking
- Food or beverage preparation

Do not clean any part of your body or uniform with compressed air, gasoline, solvents, or oily rags.

Use Company-supplied hand creams and soaps for cleaning hands, arms, face, and other parts of the body when job tasks are complete.

Employees may not enter lunchrooms or administrative areas with excessively dirty or dusty protective work clothing or equipment.

Keep lunchrooms, lunch tables, microwaves, and refrigerators clean.

1.5. Personal Safety Rules

Do not walk under suspended loads or put yourself in pinch point positions—between moving and stationary objects—particularly when hoisting materials or working around mobile equipment.

Inspect all tools and equipment prior to use. Do not use defective tools or equipment. Do not modify or bypass any guard, interlock, or other safety device for the purpose of defeating its function except when authorized and it is necessary for test, repair, or adjustment of the device.

Do not contact moving parts of equipment with any part of your body at any time.

Guard against losing your footing, slipping, and stumbling over hazards by using handholds and railings when available.



Safety Rules Book

Always maintain “Three Points of Contact” when getting on or off vehicles, equipment, and machinery or when ascending or descending ladders or platforms.

Always wear the required PPE for the specific task. Consult Job Hazard Analysis (JHA) or job safety briefing or ask your supervisor if you are unsure.

1.6. Buddy System

Perform the following tasks—indicated as “Buddy System” jobs—only when at least one other person is present to assist. Buddy System jobs include:

- Entering Permit-Required Confined Spaces (trained and authorized outside attendant required)
- Hot Work requiring a fire watch.
- Electric work over 600 volts (both must be Electrical-Qualified Persons)
- Manually lifting awkward or heavy loads
- Work requiring a Self-Contained Breathing Apparatus (SCBA)
- Opening ash hoppers or bins when the boiler is operating.
- Opening any hopper or bin when material is above the level of the opening.
- When working near water and exposed to a drowning hazard.
- When personal fall protection is required, except in manlifts.
- When guards are removed from equipment during maintenance, testing, and troubleshooting.
- Other site-specific requirements.

1.7. Worksite Communications

Shift Turnover Communications

- Shift turnover communications are a shared responsibility.
- If another employee directly relieves you—during a shift turnover or for other reasons—inform the oncoming employee of any new hazards that have been identified or of any deviations from normal operating procedures.
- If you relieve another employee directly, ask about any new hazards that have been identified or of any deviations from normal operating procedures.



Safety Rules Book

Using Communication Devices

- All employees working alone or in isolated areas shall have a means of communication, either a radio or cell phone are acceptable.
- Communication devices shall be tested to ensure they are in operable condition before use.

Acknowledging Phone or Radio Transmissions

- The person receiving a phone or radio transmission shall verbally acknowledge receipt of the message.
- An employee who does not understand a communication or who receives a communication that is incomplete shall not act upon the communication until it is clarified.

Exception: An employee who receives information that may affect the safety of personnel or cause damage to equipment shall take the safest course of action. When necessary, stop activities until the communication is understood.

Use of Communication Devices While Operating Equipment or Driving

- Personal Communications – Cell Phones
 - All employees are prohibited from using any personal or company communication device while driving a vehicle or operating mobile equipment while on duty or otherwise engaged in business on behalf of the company.

Personal or company communication devices include:

- Any electronic communication device.
- Cell phones or any other mobile or built-in communication device with or without handsfree or Bluetooth capability
- Two-way radios
- MP3 Players
- Pagers
- Cameras
- Computers
- On board computers



Safety Rules Book

- Taking notes or attempting to read cell messages while operating or driving is prohibited.
- Communication devices must be secured when not in use.

Electronic Devices and Explosive Atmospheres

- Turn off radios, cell phones and other electronic devices in posted areas or where potentially explosive conditions could exist. Notify the Control Room before entering and upon exiting. Such areas may include:
 - Flammable fuel, chemical, or gas storage and transfer areas.
- Enclosed dusty locations.
- Do not transport or store flammable gases or liquids in the same compartment of your vehicle that contains your radio, cell phone or accessories.

1.8. Worksite Housekeeping and Security

General Housekeeping

- Keep work locations, vehicles, and the inside and outside of buildings clean and orderly.
- Prevent trip hazards by routing hoses, cords, and welding cables above or below walkways whenever possible.
 - Use only non-conductive materials such as nylon ties or rope when supporting or securing extension cords or welding cables.
- Leave no standing water or spilled materials on walkways or work areas.

Compressed Air

- Compressed air can be used to clean parts and equipment provided that in the event the airline is “deadended,” the static pressure at the point of blockage would not be more than 30 PSI.
- **Do not:**
 - Direct compressed air at yourself or anyone else.
 - Direct compressed air at glass or other breakable objects.



Safety Rules Book

Barrier Tape

- When using barrier tape, follow the barrier tape procedure. Never use barrier tape in place of physical barriers to protect against fall hazards.
 - When indicating “ENTER WITH CAUTION,” use yellow tape.
 - When indicating “DO NOT ENTER,” use red tape.

Security

- Do not bring visitors onsite without approval from your supervisor.

Speed Limits and Parking

- Always observe all posted speed limits and signs.
- Adjust speed in response to reduced visibility or slippery conditions.
- Employees, contractors, and visitors may only park in designated areas.
- Never block building exits, emergency routes, fire lanes, or emergency or fire equipment.

2.0 Personal Protective Equipment (PPE)

PPE procedures and requirements are described below. Refer to the PPE, Hearing Conservation and Respiratory Protection Programs or ask your supervisor if you have any questions. Task and exposure-specific PPE requirements can also be found in JHAs or identified during job safety briefings. Signs are also posted in various plant locations to remind you of PPE requirements.

2.1. Required PPE Procedures

Obtain OHS authorized PPE, purchased from approved vendors from your supervisor.

Submit reimbursements for safety boots and prescription safety glasses using the appropriate authorization form.

Inspect PPE before use.









Safety Rules Book

Removed damaged or defective PPE from service and have it repaired or replaced.

Keep PPE clean.

- Clean or replace dirty or fogged lenses on eye and face protection and respirators so that vision will not be impaired.
- Employees shall not share PPE such as hard hats, eye protection, hearing protection, respiratory protection, and safety shoes with other employees unless it has been cleaned and sanitized.
- Clean and disinfect respirators in accordance with the manufacturer’s recommendations after each use.
- Store respirators in clean, sanitary locations.
- Do not store respirators in such a way that the facial sealing surfaces could be deformed.

2.2. General Minimum PPE Requirements

Required Minimum PPE for Daily Work	
	Hard Hat
	Safety Glasses
	Hearing Protection
	Double Hearing Protection
	Safety Shoes
	Long Sleeve Shirt Long Pants



Safety Rules Book

Hard Hats

- Unless an overhead or bump hazard exists or unless required by a task or JHA or job safety briefing, the following areas are exempt from mandatory hard hat use:
 - Control Rooms, administration buildings, offices
 - Shops, labs
 - Lunch and break areas, shower/locker, and rest rooms
 - Scale houses, Continuous Emissions Monitoring System (CEMS) buildings
- Always wear hard hats with the brim forward, unless otherwise instructed by your supervisor.
- Wear hard hats when using welding hood/masks, aluminized reflective hoods, arc-flash hoods, and sandblast hoods, unless otherwise instructed by your supervisor.
- Do not apply stickers within 3/4 inch of the hard hat edge OR over any defects OR without approval by plant management.

Safety Glasses

- Unless an eye hazard exists or unless required by a task or JHA or job safety briefing, the following areas are exempt from mandatory safety glasses use:
 - Control Rooms, administration buildings, offices
 - Lunch and break areas, shower/locker, and rest rooms
 - Scale houses
- Do not purchase prescription safety glasses until pre-approved by supervision, in accordance with the Employee Handbook.
- Prescription contact lenses may be worn under primary eye protection, unless otherwise prohibited for a specific task or area.

Hearing Protection

- Hearing Protection, consisting of ear plugs OR earmuffs shall be worn AT ALL TIMES:
 - when inside process buildings (boiler buildings, turbine/generator buildings, pump rooms, etc.) unless exempted.
 - in all posted outdoor areas or within 30 feet of operating machinery.
 - as required by a task JSB or JHA
- Double Hearing Protection consisting of ear plugs AND earmuffs shall be worn AT ALL TIMES:
 - when working in posted Double Hearing Protection Required areas (noise levels greater than 95dBA)



Safety Rules Book

- As required by a task or JHA

Note: Immediate pass-through wearing only earplugs or earmuffs (such as when performing rounds) is allowed unless otherwise posted.

• Exempt Hearing Protection Areas: Unless proven otherwise by Noise Surveys or unless required by a task, JSB, or JHA, the following areas are exempt from mandatory hearing protection use:

- Control rooms, administration buildings, office areas, and hallways.
- Shops (unless operating equipment), labs
- Lunch and break areas, shower/locker, and restrooms.
- Scale houses, warehouses, CEMS buildings
- Fuel yard, unless working around operating Yellow Iron equipment

Safety Shoes

- All employees working on Company property, in other than an office environment, shall wear safety shoes.
- Do not purchase safety shoes until pre-approved by supervision, in accordance with the Employee Handbook.

Clothing

- All non-administrative employees working in other than an office environment shall wear Company-provided long sleeve uniforms.
- Keep loose shirttails tucked in at all times.
- Do not roll up shirtsleeves in areas where there is potential exposure to chemical or thermal burns.

Personal Items

- Do not wear loose-fitting clothing or jewelry around rotating tools and machinery.
- Do not wear conductive articles like jewelry, chains, and key rings around exposed energized lines and equipment.
- Keep hair secured out of the way if it could become entangled in tools and machinery or obscure your vision.

2.3 Task and Exposure Specific Minimum PPE

Eye, Face, and Head Protection

- Wear primary eye protection (either safety glasses with permanently attached side-shields or impact-resistant goggles) when using face shields or welding hoods.



Safety Rules Book

Note: A full-face respirator with an impact-resistant lens offers equivalent protection as goggles.

- Wear goggles when working, or around others working in areas containing airborne ash/fly ash, dry chemical, or dust hazards (e.g., windy conditions; positioned below ash-laden parts or equipment; ash or dry chemical handling).
- Wear indirect-vented goggles and a full-face shield when conducting tasks where actual or potential liquid chemical splash hazards exist (e.g., pumping or pouring chemicals).
 - Wear indirect-vented goggles when entering areas where others are conducting tasks, such as those listed above.
 - Wear indirect-vented goggles and a full-face shield when in close proximity to others conducting tasks, such as those listed above.
- Wear indirect-vented goggles and a full-face shield when conducting tasks where actual or potential pressurized air hazards (e.g., using an air lance) or pressurized liquid hazards exist (e.g., tightening a fitting on a pressurized hydraulic system or using a power washer).
- Wear primary eye protection and a face shield for protection when grinding, chipping, or sawing.
- Wear welding helmets or hoods, or handheld shields with the appropriate shade lenses to protect against light radiation when electric arc welding or cutting.
- Wear welding helmets, hoods, or cutting goggles with the appropriate shade lenses when gas welding, cutting, brazing, or soldering.
- Electrical-Qualified Persons shall wear electrical-protective face shields or hoods appropriate for the electrical hazard.

Hand Protection

- Wear leather gloves for general protection against dirt and abrasion during routine work.
- Wear cut-resistant gloves for protection against cuts and sharp objects.
- DO NOT wear gloves around rotating machine shop tools such as lathes and drill presses.
- Wear chemical-resistant gloves for protection against chemicals.
- Wear chemical-resistant disposable gloves for protection when handling lab test reagents and for potential exposure to bloodborne pathogens. Gloves shall be discarded in the trash upon task completion.
- Wear welding gloves for protection against hot surfaces while performing Hot Work activities.
- Wear aluminized or high-temperature gloves for protection against hot ash.



Safety Rules Book

- Electrical-Qualified Persons shall use voltage-rated gloves and leather protectors appropriate for the electrical hazard.

Foot Protection

- Wear chemical resistant over-boots for exposures to hazardous chemicals.
- Wear metatarsal foot protectors for jackhammer work. Electrical-Qualified Persons shall wear non-conductive boots and use non-conductive mats for work on or around energized conductors appropriate for the electrical hazard.

Protective Clothing

- All personnel shall wear high-visibility reflective vests when working:
 - In the Fuel Yard
 - In ash loading/unloading areas
 - In other areas with exposure to vehicular traffic and along roadways.
- When using a chainsaw personnel shall wear cut resistant leg protection such as chaps.
- Wear thermal protective gear (such as aluminized or NOMEX suits or coveralls) in accordance with JHAs/SJPs when performing jobs with potential exposure above 120 degrees Fahrenheit to:
 - Hot ash
 - Hot water
 - Steam
- Wear chemical-resistant suits or coveralls in accordance with JHAs or job safety briefings when performing jobs with potential exposure to chemicals, particularly:
 - During transfer operations and spill response
 - When working on chemical distribution systems and tanks
- Wear chemical-resistant aprons for chemical splash hazards such as parts cleaning, especially where parts contain chemicals or when part configurations may cause splash.
- Wear fire-resistant gauntlets, aprons, jackets, and leg chaps (“leathers”) when performing Hot Work activities to protect against sparks, molten metal splash and contact with hot materials. The extent of protection will be dependent on the nature and location of the work. Consult your supervisor for direction.
- Wear air-supplied sandblast hoods for open sand blasting operations.
- Electrical-Qualified Persons shall wear electrical-protective clothing, appropriate for the electrical hazard.



Safety Rules Book

Respiratory Protection

- All work involving airborne hazards shall be conducted in accordance the Respiratory Protection Program and job specific JHAs or job safety briefings. Consult your supervisor for direction.
- Respirators shall be worn:
 - In all posted areas
 - As per the Safety Data Sheet (SDS) or manufacturers' recommendations.
 - As per JHAs or job safety briefings and whenever instructed by supervisors.
- All personnel required to wear a respirator as described in the Respiratory Protection Program shall not have any facial hair between the skin-to-respirator sealing surfaces or interfere with the inhalation or exhalation valve operation.
- Clean, store, and maintain all respirators according to manufacturers' requirements.
- Prior to each use:
 - Inspect the respirator, including the face piece, inhalation and exhalation valves, straps, and cartridges to ensure it is in good condition.
 - Conduct a fit check of the respirator.
- Mechanical ventilation shall be provided to enclosed areas when:
 - Applying solvents, paints, and other chemicals
 - Welding, torch cutting, or burning.
 - Emissions from combustion engines, stoves, or heaters may cause concentrations of excessive airborne contaminants.
 - Recommended in product instructions or the SDS.

Hearing Protection

- Hearing Protection (ear plugs OR earmuffs) shall be worn AT ALL TIMES when working on Company property, (except as stated in Section 2.2.). When performing the following tasks:
 - Jackhammering
 - Electric arc cutting and gouging.
 - Using vacuum truck hose
 - Working within 30 feet of operating yellow iron equipment
 - As required by JHAs or job safety briefing or when performing "Hearing Protection Required Tasks" as listed in the Hearing Conservation Program.



Safety Rules Book

- Double Hearing Protection (ear plugs AND earmuffs) shall be worn:
 - When working in posted “Double Hearing Protection Required” areas
 - When performing the following tasks:
 - Working around operating steam safety pressure-relief valves.
 - During steam blows
 - As required by JHAs or job safety briefing or when performing “Double Hearing Protection Required Tasks” as listed in the Hearing Conservation Program.

Fall Protection

- All walking and working surfaces shall be kept clear of debris and spilled material that may cause falls.
- All safety gates on platforms shall be closed when a platform is occupied.
- All floor holes or wall openings and excavations shall be covered or protected by a guardrail system, or personal fall protection shall be used.
Note: A “Designated Area” may be used for temporary work where other fall protection systems are not practical. See definition for specific requirements.
- Unless otherwise instructed by Shasta - SRM supervision, personal fall protection is required AT ALL TIMES when positioned more than 4 feet above a lower level and exposed to a fall hazard:
 - Unprotected sides and edges: Any side or edge of a surface (except at entrances to points of access) where there is no wall or guardrail system or warning line system OR,
 - Unprotected floor holes: An opening measuring 2 inches or more in its least dimension, in a floor, roof, or other walkingworking surface through which persons may fall that is not protected by a guardrail system or rated cover OR,
 - Unprotected wall openings: An opening at least 30 inches high and 18 inches wide through which persons may fall that is not protected by a guardrail system or rated cover.
- Inspect personal fall protection prior to each use.
- Remove defective components from service immediately and discard or have them repaired.
- Always attach lanyards or deceleration devices to an anchor point that is rated and approved for such use. Never use a handrail as an anchor point.
- Obtain authorization from your supervisor before erecting horizontal lifelines.
- Where vertical lifelines are used, no more than one person shall be attached to each individual lifeline



Safety Rules Book

- Keep lanyards secured and out of the way if they could become entangled in tools or machinery.

3.0 Work Area Protection

3.1. Employee Responsibility

All employees shall maintain a safe work area for themselves and their coworkers.

3.2. Office Safety

Arrange office equipment to keep aisles and emergency exits clear.

In walking areas, encase communication and electrical cords in cord protectors or tape to the floor to avoid trip hazards.

Use a ladder or step stool to reach overhead objects. Do not stand on chairs.

Close and secure the paper cutter blade after use.

3.3. Walking/Working Surfaces

Report and correct any unsafe conditions as soon as possible.

Keep all walking/working surfaces free of debris, trip hazards (cords, hoses, lines) slippery or spilled materials.

Do not support your weight against or lean over railings.

Keep safety gates on platforms closed when the platform is occupied.

Keep floor or wall openings covered or protected by guardrails.

- Where floor or wall openings cannot be kept covered or protected by guardrails, use personal fall protection.

Keep emergency/fire equipment and eyewash stations/safety showers always clear.

Keep exits, stairways and corridors always clear of obstructions.



Safety Rules Book

3.4. Machine and Equipment Guarding

All plant machinery and equipment, including motors, pumps, fans, conveyors and other equipment with rotating shafts or parts:

- Keep equipment areas clear of obstructions and trip hazards.
- Do not wear loose-fitting clothing, jewelry, long hair, or other articles that could become entangled in equipment.
- Do not contact moving parts of equipment with any part of your body at any time.
- Report all damaged or missing guards immediately.
- Keep machine guards and covers securely in place, all interlocks functional, and all emergency-stops accessible while equipment is operating except when maintenance, testing, and troubleshooting activities are occurring.
- Do not modify guards, interlocks or, emergency stops without authorization from supervision.
- Do not remove or replace guards unless the equipment is locked out.
- If equipment must be operated without guards in place during maintenance, testing, or troubleshooting, establish an equivalent level of protection as approved by plant management or station a safety watch:
 - For the duration of the work requiring the removal of the guards, OR until the equipment is locked out, OR until the guards are replaced.
 - Use safe work practices to protect workers.
- The Work Group Leader shall ensure that all personnel and tools are clear before starting the equipment.

3.5. Material Handling and Storage

When shoveling pivot your body to avoid twisting.

Wheelbarrows, Hand-Trucks, Wagons, Carts and Pallet-Jacks

- Never ride on or in wheelbarrows, hand-trucks, wagons, carts, or pallet-jacks.
- Do not exceed load limits.
- Do not operate motorized pallet-jacks unless trained and authorized.

Lifting and Carrying

- Size up the load and plan the lift.
- Do not manually lift awkward or heavy loads by yourself.
- Use lifting equipment or get help.



Safety Rules Book

- Lift with your LEGS, not with your BACK.
 - Keep your back straight.
 - Lift slowly, using leg power.
- Do not use back belts to prevent back injuries -USE SAFE LIFTING PRACTICES.

Moving Drums and Barrels

- Use only mechanical drum-lifting equipment or the Buddy System to move heavy drums or barrels.
- Always check that main and vent plugs are fully tightened before moving.
- Always check the container integrity before moving. Report leaking containers to your supervisor before moving.

Storage and Transfer

- Chock wheels of trucks and trailers before loading or unloading.
- Make sure all transfer equipment (gangplanks, transfer plates, etc.) is properly secured before using it.
- Do not allow persons or equipment to pass under roll-up doors until verifying there is adequate clearance.
- Do not store materials in a manner that restricts access, blocks emergency/fire equipment, or obstructs views of roadways or walkways.
- Do not exceed load ratings of storage areas or shelving or stack materials too high where the material becomes unstable. If unsure, ask your supervisor.
- All material stored in elevated areas shall be securely fastened or stored in such a manner as to prevent it from falling.
- Do not lean equipment against guardrails.
- When storing materials in buildings, maintain a minimum of 18 inches of clearance below sprinkler heads.
- When it is not possible to segregate incompatible chemicals by storing them in individual storage cabinets, separate them by a minimum of 20 feet.
- When cutting steel packaging bands, restrain banding to prevent recoil prior to cutting.

3.6. Ladders

General Safety Rules

- Do not use "job-built" ladders or makeshift ladders (like pallets).
- Do not use ladders in a horizontal position as walkways or scaffolds (unless specifically designed for that application, such as articulated ladders) or for any other use for which they were not designed.



Safety Rules Book

- Keep ladders free of oil, grease, and other slipping hazards.
- Never use a defective ladder:
 - Inspect ladders before use and after any occurrence that could affect their safe use, such as falling over or being struck by equipment.
 - Do not load a ladder beyond the rated capacity listed on the ladder. When calculating the load, include:
 - Your own weight
 - The weight of the tools you will carry.
 - The weight of any equipment you will carry.
 - Always place ladder legs on firm, level footing or secure them against movement.
 - If using a ladder within the swing of a door, secure the door or have a co-worker guard the ladder base.
 - When climbing:
 - Do not climb ladders with tools or materials in your hands. Use a hand line or tool belt. Never throw tools.
 - Have only one person on a ladder at a time.
 - Face the ladder at all times and maintain three points of contact.
 - Keep the center of your body within the outside rails of the ladder.
 - Do not move laterally from one ladder to another.
 - Never overreach or attempt to “walk” a ladder across the floor. Reposition the ladder if you can’t reach the work.
 - Do not move, shift, or extend a ladder while it is occupied.
 - Do not work under a ladder unless overhead protection is provided.
 - Unless you are an Electrical-Qualified Person, stay at least 10 feet away from all uninsulated energized lines for all voltages up to 50,000 volts—add 4 inches of distance for each 10,000 volts beyond that. For actual working clearances, see Section 5.1 Allowable Approach Distances Table.

Straight and Extension Ladders

- When using portable ladders, use only fiberglass ladders unless otherwise authorized by OHS Management.
- Do not work from a straight or extension ladder unless specifically instructed by your supervisor.



Safety Rules Book

- When using portable straight or extension ladders:
 - Use only ladders fitted with grippers, cleats, or non-slip safety feet that will prevent the ladder from slipping.
 - Place the ladder so it extends a minimum of 3 feet above the landing surface.

Note: If this is not practical, the landing surface shall be provided with grab rails to aid in mounting and dismounting.

 - Place the ladder so it rests against a stable structure with the two rails supported equally (unless equipped with a single support attachment.)
 - Use ladders at an angle where the horizontal distance from the top support to the foot of the ladder is a quarter of the working length of the ladder.
 - Do not extend an extension ladder beyond the maximum working length listed on the ladder.
 - Tie off the ladder near the top or have it held securely by another person.
 - Fully engage the guides and hooks of extension ladders before climbing.

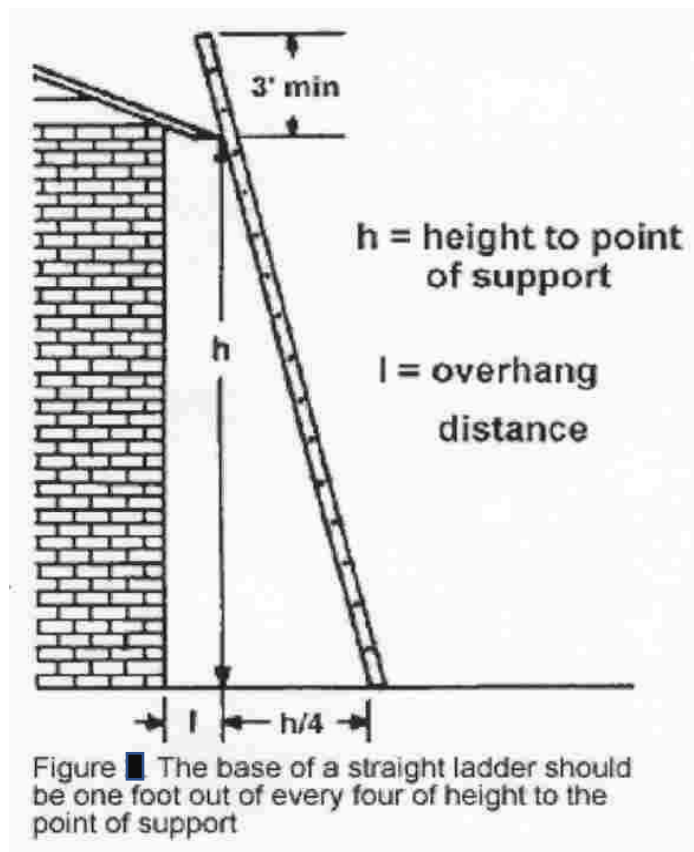


Figure 1 The base of a straight ladder should be one foot out of every four of height to the point of support.



Safety Rules Book

Stepladders

- Use only fiberglass ladders unless otherwise authorized by OHS management.
- Use only a fully open stepladder with spreaders properly set.
- Do not climb on stepladders that are leaning against walls.
- Do not use the cross-bracing on the rear section of stepladders for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.
- Do not use the top or top step of a stepladder as a step.

Fixed Ladders

- Do not use fixed ladders found to have defects, such as:
 - Broken or missing rungs or rails
 - Corroded components
- Defective ladders shall be immediately barricaded and tagged as **“Do Not Use”** until repaired.
- Close ladder swing gates when working on ladder accessed platforms.

3.7. Scaffolds

General Safety Rules

- All work involving scaffold erection and inspection shall be performed under the direction of a Scaffold-Competent Person.
- Do not erect, move, dismantle, or alter any scaffolding without authorization.
- Inspect scaffold work areas each day before beginning work for damage or unauthorized modifications.
 - Report any problems to your supervisor and restrict access until corrected.
- Do not allow anything that could cause a slip, trip, or fall (such as tools, scrap material, chemicals, snow, ice, etc.) to fall on or accumulate on the platform.
- Do not access scaffolds when high winds, ice hazards, lightning, or other storm hazards exist.
- Do not work on equipment or structures more than 14 inches away from the scaffold.
- Unless you are an Electrical-Qualified Person, stay at least 10 feet away from all uninsulated energized lines for all voltages up to 50,000 volts—add 4 inches of



Safety Rules Book

distance for each 10,000 volts beyond that. For actual working clearances, see Section 5.1 Allowable Approach Distances Table.

- Protect all lighting and portable electric equipment used on scaffolds with ground-fault circuit interrupters (GFCIs).
- Do not load the scaffold or any component parts beyond their maximum capacity.
 - If the capacity is not posted, consult your supervisor.
- Do not use makeshift devices, such as boxes and barrels, on top of scaffold platforms to increase the height of the working level.
- When tools or materials could fall from scaffolds to areas below:
 - Barricade the area below the scaffold so persons are not permitted to enter OR,
 - Install guardrails, toe-boards, paneling, or screening on the scaffold with openings small enough to contain potential objects OR,
 - Erect a canopy structure, debris net, or catch platform strong enough to withstand the impact of the potential falling objects over the persons below.

Supported Scaffolding – Tube Coupler Scaffolds and Sectional Frame Scaffolds

- Use the provided stairway or ladder to access the scaffold.
- Do not climb runners, bearers, or diagonal bracing.
- Do not attempt to access to or from another surface when the scaffold is more than 14 inches horizontally or more than 24 inches vertically from the other surface.
- If guardrails are not installed along all open sides and ends of supported scaffold platforms, use a full-body harness with lanyard attached to an approved anchor point, as specified by your supervisor.

Mobile Scaffolds

- Apply caster or wheel brakes at all times when a mobile scaffold is stationary.
- Secure or remove all material and equipment from a mobile scaffold platform before moving.
- Do not ride the scaffold when being moved.



3.8. Elevated Work Platforms

Scissors Lifts; Aerial Lifts; Boom Mounted Buckets and Platforms

Note: Forklift work platforms SHALL NOT be used to elevate personnel at any time.

- Only operate elevated work platforms when trained and authorized.
- Test the lift controls prior to each day's use.
- Do not exceed the manufacturer's rated safe load.
- When working on an elevated work platform, persons shall be protected by the guardrail or bucket AND wearing a full body harness with a restraint lanyard attached to an approved anchor point.

Note: SPECIAL EXCEPTION FOR SCISSOR LIFTS WITH RAILINGS: Where restraint-lanyard attachment points are not provided, keep both feet on the platform floor and never lean beyond the railing to ensure you are not exposed to a fall hazard.

- Only attach a fall-restraint lanyard to approved anchorage points of an elevated work platform as instructed by the manufacturer and never attach to any object outside of the platform.
- Before lifting, the operator shall survey the lift area to identify potential overhead hazards that could be encountered, particularly:
 - Pinch points
 - Electrical energized parts and equipment
 - Steam and chemical lines
- Unless you are an Electrical-Qualified Person, stay at least 10 feet away from all uninsulated energized lines for all voltages up to 50,000 volts—add 4 inches of distance for each 10,000 volts beyond that. For actual working clearances, see Section 5.1 Allowable Approach Distances Table.
- If objects above could fall, overhead protection shall be provided on the elevated work platform.
- Before elevating personnel, secure the area below the work platform to prevent access.
- Operators of ground-controlled equipment may only be moved at the direction of the Work Group Leader on the platform.



Safety Rules Book

- Do not climb in or out of an elevated platform or bucket unless it is equipped with a door (or a gate) and the lift is positioned to provide safe access without exposure to a fall hazard.
- Platform access-ways, including gates, removable rails, and chains, shall be secured while elevated.
- Always stand firmly on the platform floor, and do not sit or climb on the edge of the platform or bucket.
 - Do not use planks, ladders, or other objects to increase reach.

4.0 Safe Work Procedures

All employees shall follow safe work procedures at all times. Refer to the applicable Occupational Health and Safety procedures for detailed requirements associated with the following activities.

4.1. Change Management

Never make any physical or operational changes to processes or systems at the plant unless authorized.

4.2. Hazard Communications/Chemical Safety

Do not purchase or use any new material without your supervisor's approval.

Treat all unidentified chemicals as hazardous until identified as nonhazardous.

Review the SDS and JHA or job safety briefing before using any chemical for the first time.

All chemical containers, including secondary containers at the time of filling, shall be labeled with the name of the chemical and hazard warnings for that chemical.

Follow your site-specific bulk chemical unloading and chemical transfer procedures when performing those tasks.

- Keep emergency eyewash stations clear of obstructions and clearly identified at all times.
- Report any spills to your supervisor immediately.



Safety Rules Book

Treat all chemical contact with skin or eyes by immediate flushing with water for AT LEAST 15 MINUTES and remove contaminated clothing as soon as possible.

Always wash your hands before leaving test labs if you have been handling chemicals or conducting tests.

Do not eat, drink, smoke, chew, or apply cosmetics while in test labs.

4.3. Lockout/Tagout (LOTO)

Always obtain Lockout/Tagout authorization from the Control Room before working on equipment, if operation, unexpected energization, start-up, or release of stored energy could cause injury.

- Follow the Lockout/Tagout Program authorization procedure.

Always verify zero energy status of equipment before performing work.

Before working on the equipment, attach your personal photo ID lock to the lockbox or to the local energy isolation point, as required by the equipment-specific Energy Control Procedure (ECP) and the Lockout Permit.

Never use lockout or personal locks, for purposes other than energy control.

Replace guards or interlocks; make sure all tools, materials, and personnel are clear; and obtain authorization from the Control Room before re-energizing.

4.4. Permit-Required Confined Space (PRCS) Entry

Do not enter a Permit-Required Confined Space (PRCS) unless:

- You are trained and authorized, AND
- You have signed onto the Confined Space Entry Permit

Note: Sign-in is not required if the confined space has been reclassified as a “Non-Permit-Required Confined Space.”

- Follow the Confined Space Procedure when entering a confined space.



Safety Rules Book

PRCS Attendants shall:

- Remain outside the PRCS at all times.
- Review the PRCS Entry Permit.
- Maintain an accurate log of entrants.
- Monitor conditions in the space.
- Maintain communications with entrants.
- Order evacuation of the PRCS if necessary.
- Summon the PRCS Rescue Team if necessary.
- Prevent unauthorized entry.

PRCS Entrants shall:

- Review the PRCS Entry Permit prior to entry.
- Maintain communication with the attendant.
- Evacuate the space when directed or when signs of overexposure are detected.

4.5. Hot Work Permits

Except for work done in the Maintenance Shop or other specifically designated Hot Work areas, do not perform any jobs involving welding, cutting, heating, grinding, open flames, high temperatures, or sparks without obtaining a Hot Work Permit.

Return the Hot Work Permit, as instructed, upon completion of the work.

Follow the Hot Work Management Procedure when conducting Hot Work activities.

5.0 Electrical Safety

5.1. General Electrical Safety Rules

Unless you are an Electrical-Qualified Person, stay at least 10 feet away from all voltages up to 50,000 volts – consult OH&S for higher voltage clearances.

Do not touch electrical equipment when you are wet or standing in water.

Do not reach blindly into areas that might contain energized parts.



Safety Rules Book

Keep areas in front of electrical panels clear for at least 36 inches.

All electrical distribution panels, breakers, disconnects, switches, and junction box doors and covers shall be kept closed unless work requiring the doors or covers to be open is in progress. Report any open doors or covers to your supervisor.

5.2. Tools and Equipment

Use only non-conductive (such as plastic-cased) flashlights around energized electrical lines and equipment.

Use only fiberglass ladders around energized electrical lines and equipment.

Make sure all temporary lighting has guards in place to prevent accidental contact with the bulb.

Do not suspend temporary lights by their electric cords unless cords and lights are designed for this means of suspension.

5.3. Wiring, Circuits, and Electric Equipment

Never operate circuit breakers or switches that do not identify the circuit, machinery, or equipment they control.

Do not alter safety features of any electrical equipment.

Do not exceed the recommended wattage when replacing bulbs in light fixtures.

5.4. Batteries

Check that emergency eyewash stations are in operable condition prior to work on or near exposed batteries.

Do not smoke or allow open flames, sparks, or electric arcs in battery charging areas or around exposed batteries. Keep tools, metal jewelry (including watches), and other metallic objects away from the top of uncovered battery terminals.



Safety Rules Book

Use insulated funnels when flushing batteries.

When filling or charging a battery, wear a face shield over indirectvented goggles and other protective equipment as required by JHAs.

Do not use a welding machine to jump-start a vehicle battery.

5.5. Generators

Never operate a generator that can back feed into lines or equipment and pose a hazard to other personnel.

5.6. Motor Control Centers (MCCs) and Breakers

Unless directed by your supervisor, never open a breaker under “load” (presently providing power to operating equipment)—always shut down the equipment first.

Where provided, always check that panel amperage indicators read “zero” amps before opening breakers.

When manually opening or closing a breaker:

- Stand to the side of the panel or door when possible.
- Do not contact other equipment.
- Grasp the breaker handle with only one hand (non-dominant hand) when opening or closing.

5.7. Electrical-Qualified Persons

Only Electrical-Qualified Persons trained and authorized for the tasks and using safe work practices, protective clothing and equipment appropriate for the electrical hazards may perform the following work on circuits greater than 50 volts:

- Open doors or covers that expose potentially energized conductors of electrical equipment or circuits.
- Perform electrical work or electrical testing on equipment or circuits.
- Open fuse boxes and remove or replace fuses.
- Rack in/out breakers



Safety Rules Book

Note: This does not apply to routine switching of circuits with breaker doors closed.

- Perform switching operations in switchyards.
- Work on or near exposed energized parts shall be avoided whenever possible. If work must be conducted on energized electrical equipment for other than troubleshooting or testing, then an Energized Electrical Work Permit must be approved before beginning work.

6.0 Vehicle And Equipment Operation

6.1. Company Vehicles and Equipment

General – All Vehicles and Equipment

- Wear seat belts while operating or riding in Company vehicles or equipment that is equipped with seat belts.
- Do not ride or allow riders on any areas of Company vehicles or equipment not designed to transport passengers.
- Only persons engaged in Company-related business are permitted to ride in Company vehicles or equipment.
- Never use Company vehicles or equipment for personal business or for commuting to or from a personal residence unless authorized in accordance with your site-specific authorization process.
- Do not allow contractors to operate Company vehicles or equipment unless authorized by plant management.
- Do not operate vehicles or equipment belonging to contractors, unless authorized by your supervisor.
- Do not install radios or other accessories in Company vehicles or equipment without authorization.
- When operating Company vehicles or equipment at night, always carry a flashlight in case equipment malfunction occurs.
- Never expose others to “pinch point” situations—between the vehicle or equipment and stationary objects.



Safety Rules Book

Refueling Vehicles and Equipment

- When preparing to refuel:
 - Place controls in the “park” or safe position.
 - Set brakes.
 - Fully lower any buckets, forks, booms, or attachments on equipment
 - Stop the engine.
 - Attend all fueling operations to avoid leaks or spills. If a leak or spill occurs, report it immediately.
- If fueling gasoline:
 - Turn off battery-powered equipment like cell phones and two-way radios.
 - Maintain contact with the vehicle to dissipate static electricity, particularly in dry weather.
 - Don’t re-enter your vehicle during fueling.

Servicing Vehicles and Equipment

- Before servicing, make sure the vehicle or equipment is safely secured:
 - Place controls in the “park” or safe position.
 - Set brakes.
 - Fully lower any buckets, forks, booms, or attachments on equipment.
 - Stop the engine.
 - Remove the key from the switch and ensure it remains under control of the Work Group Leader.

Never work on vehicles or equipment with the engine running unless directed to do so by your supervisor.

Always block or otherwise secure parts such as wheels, buckets, blades, booms, and arm assemblies from movement before working underneath or in potential pinch point positions.

6.2. Trucks and Pickups, SUVs, and Cars

Every driver operating Company vehicles, both on and off Company property, shall:

- Perform a general “Circle-for-Safety” walk-around inspection before first operation.



Safety Rules Book

- Report any problems or damage to your supervisor.
- Obey local, state, and federal laws and regulations for operating vehicles.
- Obey posted speed limits, parking restrictions and all other traffic signs and signals.

Every driver operating Company vehicles, both on and off Company property, shall carry a driver's license that is valid, current and appropriate for the class vehicle operated.

Any driver whose license or permit is suspended, revoked, or restricted shall:

- Stop operating vehicles.
- Notify their supervisor that their license or permit has been suspended, revoked, or restricted.

Every driver operating Company vehicles shall:

- Always make sure that no persons or obstructions are in the path of movement, especially when backing.
- Always apply parking brakes when parking vehicles

6.3. Forklifts

Only operate forklifts when trained, certified, and authorized.

Conduct a pre-operation inspection before operating the forklift—do not use defective equipment.

Handle only loads that are stable, safely arranged, and within the rated capacity of the forklift.

Set the brakes and block the wheels of all vehicles (trucks, trailers) being unloaded to prevent movement of these vehicles.

Check the flooring of trucks or trailers for breaks and weakness before they are driven onto.

If the load being carried obstructs forward view, travel with the load trailing.



Safety Rules Book

Slow down and sound the horn at cross aisles and other locations where vision is obstructed.

When a forklift is left unattended, and the operator is more than 25 feet away:

- Shut off the forklift.
- Fully lower the forks or other lifting devices.
- Neutralize the controls.
- Shut off the power.
- Set the brakes.

Do not allow any person to stand under or pass under the elevated portion of any forklift, whether loaded or empty.

6.4. Mobile “Yellow Iron” Equipment

Loaders/Skid-steers, Dozers, Backhoes and Off-Road Trucks

General Safety Rules

Only operate equipment when trained and authorized.

- Always conduct a pre-operation inspection before operating equipment—do not use defective equipment.
 - Keep operating cabs free of loose materials that could roll under pedals or interfere with operation—standard items like first-aid kits, toolboxes and fire extinguishers shall be permanently mounted.
- Face ladders/footholds/grab bars, take one step at a time, and always maintain three points of contact, when mounting and dismounting.

Operation of mobile “Yellow Iron” Equipment

- When equipment is operating, always obtain “eye contact” acknowledgement of the operator before:
 - Approaching moving equipment OR,
 - Mounting stationary equipment
- Operate controls only from the operator’s compartment, never from the outside.
- Sound the horn when beginning to move stationary equipment forward.
- Do not move equipment backward without an operating reverse alarm.



Safety Rules Book

- Do not use a loader bucket to lift people or as a work platform.

Excavating

- Never dig without checking for underground electric lines, fuel, or natural gas lines or other utilities.
- Stay 15 feet away from excavations that are over 4 feet deep unless covers, earthen barricades, or guardrails are in place, or you are wearing personal fall protection.
- Unless you are the operator, DO NOT stand on, lean against, or otherwise contact excavating equipment in the event an unknown underground electrical line is contacted.
- Do not allow personnel working within an excavation to come within reach of the excavating bucket.
- Do not allow the boom or bucket to pass over personnel when digging or casting material.

6.5. Cranes, Hoists, and Rigging

General Safety Rules

- Inspect cranes, hoists, and rigging, including chainfalls and come-alongs, before use.
- Do not walk, stand, or work under a suspended load.

Rigging

- Use only Company-provided rigging that is in good condition.
- Do not use hooks without a safety latch.
- Do not use hoists, slings, or other lifting devices unless you know the load rating.
 - Refer to manufacturer's rigging tables, considering factors such as the effect of sling angles, attachment devices and the type of hitch when determining the actual load rating.
- Never wrap the hoist cable directly around the load. Use slings or other lifting attachments.
- Always make wire-rope connections according to the clamp manufacturer's recommendations.
- Never attach rigging or any lifting device to a stairway or platform railing (such as handrails/guardrails) for purposes of lifting or supporting a load.



Safety Rules Book

Lifting

- Do not allow the load to exceed the rated capacity of any individual component.
- Do not exceed crane, hoist, or load chart ratings.
- Unless prevented by the surrounding terrain, outriggers on mobile cranes shall be fully extended before beginning a lift.
 - If outriggers cannot be fully extended, do not exceed the load ratings specified for use without outriggers.

Using Signals

- Maintain clear communication between the signalperson and the operator at all times.
- Where visual contact can be maintained, use pre-determined ANSI hand signals.
- If visual contact cannot be maintained, continuous radio communications shall be required.
 - If continuous communications cannot be maintained, stop operations until the communications are re-established.
 - Only the designated signalperson shall direct movement and give signals.
- When two or more hoisting machines are lifting the same load, only one designated signalperson will direct the movements.
- The operator shall acknowledge an emergency stop signal from anyone.
- The operator shall stop the lift if a signal is not understood.

Working With Cranes and Other Elevating Equipment Near Energized Lines or Equipment

- Unless you are the operator, DO NOT stand on, lean against, or otherwise contact cranes or other elevating equipment or their loads when they are operating or moving within one boom length of the minimum clearance distance (in any direction) from energized electric lines or equipment.
- Always maintain minimum clearances (as shown in the charts) between energized electric lines or equipment and any part of hoisting devices, loads, or equipment.



Safety Rules Book

- Position a safety watch to ensure that clearances are not exceeded whenever cranes or other elevating equipment will move within one boom length (in any direction) of the minimum clearance distance from energized lines or equipment.

Note: The safety watch CANNOT be the signalperson who is giving signals for the lift.

Minimum Clearance Distances While Working	
Voltage (Nominal, KV, Alternating Current)	Minimum Clearance Distance (Feet)
Up To 50	10
Over 50 To 200	15
Over 200 To 350	20
Over 350 To 500	25
Over 500 To 750	35
Over 750 To 1,000	45
Over 1,000	(As established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

Note: The value that follows “to” is up to and includes that value. For example, over 50 to 200 means up to and including 200kV

Minimum Clearance Distances While Traveling With No Load	
Voltage (Nominal, KV, Alternating Current)	While Traveling—Minimum Clearance Distance (Feet)
Up To 0.75 4	4
Over .75 To 50 6	6
Over 50 To 345 10	10
Over 345 To 750 16	16
Over 750 To 1,000 2	20
Over 1,000	(As established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).



Safety Rules Book

7.0 Power Production

7.1. Fuel and Ash Handling

Fuel Yards and Ash Loading/Unloading Areas

- Fuel Yard areas and ash loading/unloading areas are restricted to authorized persons.
- Refer to the Fuel Management Plan for additional rules.
- Ignition sources such as smoking, open flame, sparks, etc. shall not be allowed in wood storage areas where dust from the materials could catch on fire.
- Avoid walking beneath elevated truck dumps.

Tarping and Untarping Loads

- Do not expose yourself to fall hazards when tarping or untarping loads for example, DO NOT walk the top rails of truck or trailer boxes.
 - Use auto tarps, tarping platforms or personal fall protection to protect yourself from fall hazards.

Bins/Hoppers/Bunkers/Silos

- Never open doors or covers without authorization.
- Prepare an unobstructed path before opening doors or covers so that it will be possible to leave the area quickly if necessary.
- Use safety chains or other safeguards (such as not completely removing all nuts from studs) to prevent doors and covers from being unexpectedly forced open during initial opening.
- Turn on aspirating air valves (where provided) before opening rodout ports.



ALWAYS ASSUME ALL ASH IS HOT – NO MATTER HOW IT MAY APPEAR!

- Verify the level of material inside of bins, hoppers, etc. before opening doors.



Safety Rules Book

- If the level cannot be verified, always assume there is material inside that may be above the level of the door.
- Always use the Buddy System:
 - If opening doors in any situations in which the material inside may be above the level of the opening OR,
 - When opening ash hoppers or bins anytime the boiler is operating.
- Wear thermal protective equipment in accordance with high temperature task requirements.
- Use only Class II explosion-proof lighting and non-sparking tools in posted Explosive Hazard areas—such as the fueling station.

Conveyors

- Cross over or under conveyors only at crosswalks or when the conveyor is locked out.
 - Do not walk on conveyor covers.
- Block elevated reclaim conveyors securely before working under the boom.
- Grease bearings on pulleys or rollers only when the conveyor is locked out, unless extended or external grease fittings are provided.

Electrostatic Precipitators (ESPs)

- Never bypass key/lock entry systems when entering ESPs.
- Do not enter ESP collectors or high-voltage compartments without de-energizing, performing lockout, and grounding the equipment.
- Use thermal-protective gear, with personal cooling devices, as instructed by your supervisor, if compartments cannot be cooled to less than 120 degrees Fahrenheit before entry.

7.2. Water

Water Safety

- Cross streams or other large bodies of water only if a safe means of passage, such as a bridge, is provided.
- Use the Buddy System and wear U.S. Coast Guard approved personal flotation devices (PFDs) when:
 - In boats OR,



Safety Rules Book

- Working near water and exposed to a drowning hazard, as determined by your supervisor.
- Ensure that the combined weight of tools, equipment, and personnel do not exceed the rated capacity of the boat.

Tanks, Vessels, Sumps, and Basins

- Use only GFCI-protected tools, low-voltage DC-supplied tools, or pneumatic tools when working in wet tanks, vessels, or sumps.

Test Labs

- Follow lab test procedures when using test reagents and chemicals.
- Never store incompatible chemicals together.
- Use only clean mixing devices when mixing chemicals or reagents.
- Never mix chemicals or reagents inadvertently by using a common mixer, container, or pump.

Chemical Handling

- Refer to your plant's bulk chemical unloading procedures for handling chemicals.
- Never pour chemicals down drains unless the drains are specifically designated for chemical disposal.
- Do not respond to chemical spills unless you are trained and authorized by your supervisor to respond.

7.3. Boilers and Furnaces

Boiler Operations

- Boilers shall be started, operated, and shutdown in accordance with the manufacturer's recommendations and site-specific operating and safety procedures.
- Do not operate valves or equipment or open boiler doors without authorization.
- Always notify the Plant Operator before and after opening doors or taking other actions that could affect the furnace draft.
- Always assume non-insulated surfaces of piping, valves, boilers, ductwork, or hoppers are HOT!



Safety Rules Book

Outages

- Follow the boiler entry procedures for entering boilers.
- Avoid working above other persons while inside boilers if at all possible.
- If it is necessary to work above other persons, communicate your activities to those working below and:
 - Provide overhead protection such as solid decking or debris nets for those below.
 - Tie off all tools and equipment or otherwise secure them from falling.
- Make sure boiler drums, tanks, and headers are depressurized and cooled.
- If boiler access doors that present a fall hazard are to remain open during an outage attach barriers or barrier tape securely across the doors.
- When cleaning boilers:
 - Enter at a point above slag formation or at the top of the boiler and work downward—top to bottom—whenever possible.
 - If it is necessary to enter the boiler from below, communicate your activities to those working above and determine a safe location from which to remove loose material.
 - Notify all entrants before adjusting damper controls in situations in which process fans (i.e., ID Fans) are used to provide boiler ventilation.
 - Make sure backup lighting (i.e., emergency lighting, flashlights, battery lanterns, etc.) is in place for the duration of the work in situations where the failure of lighting will create hazards, such as inside furnaces or ducting.
 - Always use GFCI protection for temporary electric power inside boilers.

Pressure Testing and Startup Preparations

- While applying a pressure test to a boiler, make sure no personnel, except those authorized to inspect for leaks, are inside the furnace or any pressurized area of the boiler.
 - Do not allow an internal inspection to be made until the boiler pressure has reached the full test value for at least 5 minutes and an external inspection has been satisfactorily completed.
- During internal inspections, do not strike any part under pressure with a hammer or do anything else that would subject pressurized parts to impact.



Safety Rules Book

- All confined space entrants must sign off permits and remove all personal locks from lockboxes before spaces may be closed.
- Conduct a final walk-down inspection—to ensure no one is inside— before closing or sealing boiler drums, furnaces, duct work, superheaters, economizers, air heaters, ESPs, or any other equipment large enough for persons to bodily enter.
- Before startup:
 - Clear all combustible materials away from equipment or other areas that will become hot when the boiler is fired.
 - Replace all guards and safety devices on equipment.
 - Remove any gags from safety valves.

7.4. Turbine-Generators

Maintenance

- When Turbines are open for maintenance, ensure all foreign materials, tools, rags, or debris are removed from inside the housing before it is closed.

7.5. Lines, Piping, and Valves

Never operate a valve or system unless trained and authorized.

- Do not operate a valve unless you know the contents of the line and understand the effect of the valve operation on the system.
- Always open valves slowly when initially pressurizing lines and equipment unless you are otherwise instructed.

Follow the Lockout/Tagout and line-breaking procedures when it is necessary to break lines or open a system.

Do not repack a valve under pressure unless the valve is specifically designed to permit it.

Secure all cam-lock levers on cam-lock couplings, connections, and fittings with safety pins or similar devices.

7.6. Emission Control and Monitoring Systems



Safety Rules Book

- Keep CEMS calibration gas cylinders upright and secured from falling at all times.
- Keep cylinders capped when regulators are not attached.

7.7. Control Room

When the Plant (Control Room) Operator must leave the Control Room unstaffed, remote communication methods, such as portable radios and telephones, shall be used to ensure the Plant Operator can be reached and is able to reach others at all times.

8.0 Maintenance Activities – Mechanical Work

8.1. General Safety Rules for Tools and Equipment

Use tools only when trained and authorized to use them.

Do not allow contractors to use Company tools or equipment unless authorized.

Do not use tools or equipment belonging to contractors, unless authorized by your supervisor.

Operate tools according to the manufacturer's instructions.

Do not use damaged tools.

- Keep all tools in good condition.
- Examine each tool for damage before using it.

Use of "home-made/job-built" tools, unauthorized modification of tools, or using tools or equipment for other than their intended purposes is not permitted.

If unsure about a tool's correct use, ask your supervisor.

8.2. Hand Tools

Do not use hand tools with the following defects:

- Loose/cracked or slippery handles
- Mushroomed striking surfaces, burrs, or splinters.
- Worn ratchets or teeth, or sprung jaws.
- Obvious cracks or other defects



Safety Rules Book

Always direct sharp-edged tools away from yourself and others.

8.3. Portable Power Tools and Equipment

General Safety Rules

- To prevent injury from flying particles:
 - Keep guards in place and wear required PPE.
 - Notify others to stay clear from the work area OR,
 - Use screens/shields to prevent others from being injured.
- Always disconnect tools:
 - When not using them
 - Before servicing
 - When changing accessories
- Before energizing a tool:
 - Ensure power switches and switch-latching mechanisms are off.
 - Remove any adjustment keys.
- Never hold work in your hand; always secure your work with clamps or a vise.
- Never direct portable power tools at yourself or anyone else.

Electric Tool Plug-in

- Always use outlets equipped with ground-fault circuit interrupters (GFCIs) when plugging in portable power tools, portable equipment, and extension cords.
 - If you are working in an area without permanent GFCI protection, use portable plug-in GFCI protection.
 - Always test GFCIs prior to beginning work.
- Use only 3-wire industrial extension cords rated for the work environment conditions.
- Remove extension cords from service if cut or damaged.
- Extension cords of 12 gauge and larger may be repaired provided:
 - Polarity is not altered.
 - Wire connections are soldered.
 - The splice retains the insulation, outer sheath properties and usage characteristics of the original cord being spliced.
- Do not use electrical cords for hoisting or lowering.



Safety Rules Book

- When using magnetic-base drills, particularly on overhead or vertical surfaces, always secure the drill to prevent it from falling if the power supply is interrupted.
 - Prevent inadvertent disconnection of the drill power supply by:
 - Using warning tags OR,
 - Stationing a safety watch at the plug connection

Pneumatic Tools

- Install safety clips or positive locking devices at all airline and tool connections.
- NEVER disconnect pressurized lines; always bleed off pressure before disconnecting.
- When using air bags, always secure the air bags from falling.

Hydraulic Tools

- NEVER disconnect pressurized lines; always bleed off pressure before disconnecting.
- When performing power-pressing operations, securely attach push pins to the press and/or use guards or enclosures to prevent potential flying projectiles.

Fuel-Powered Tools

- Shut down the engine before refilling a fuel-powered tool tank.
- Always allow fuel-powered tools to cool before storing.

Powder-Actuated Tools

- Do not use a powder-actuated tool in an explosive or flammable atmosphere.
- NEVER point a powder-actuated tool at anyone.
- Always keep the barrel pointed in a safe direction.
- Keep hands clear of the barrel end.
- Load a powder-actuated tool only when ready for use.
- Never leave a loaded tool unattended.

Portable Grinders

- A face shield worn over side-shielded safety glasses or goggles is required when operating portable grinders.
- Never use an angle grinder with the guard or handles removed without your supervisor's permission.



Safety Rules Book

- Use wheels only for the specific material, purpose, and speed (RPM) for which they are designed.
- Use only the flange and locking nut that are correct for the type of grinder disc being used.
- Never use cracked or damp discs; inspect discs before use.
- Always use two hands to operate an angle grinder.

Bench Grinders

- A face shield worn over side-shielded safety glasses or goggles is required when operating bench grinders.
- The wheel or brush used shall be rated for the RPM of the grinder.
- When installing new wheels, ring-test each wheel and inspect it for surface cracks, chips, or other defects before mounting it.
- When starting up the grinder, stand to one side, allowing it to reach its full operating speed before grinding.
- Do not exceed the following clearances:
 - The distance between the work rest and the grinding wheel shall not exceed 1/8 inch.
 - The distance between the wheel and the adjustable top tongue guard shall not exceed 1/4 inch.
- Work rest and top tongue-guard adjustments shall not be made with the wheel in motion.

8.4. Jacking

Inspect the jack before you use it.

- Do not use a jack that is leaking fluid.
- Do not use a jack that is covered with oil or grease.

Use only jacks rated to hold the load.

- Do not try to lift a load that is heavier than the rating of the jack.
- If the jack is not rated, do not use it.

Establish jack stability.

- The jack setup shall be stable before lifting the load.
- Place jacks or cylinders on a flat surface that can support the load.



Safety Rules Book

- Use a cylinder base or attachment devices if added stability is needed.
- Use the shortest properly rated jack or cylinder available to perform the task.

Block or secure the equipment being jacked.

- Before beginning to jack, block or otherwise secure vehicles or the equipment be jacked so that it will not unexpectedly move.

Use a jack only for raising and lowering the load.

- Do not use the jack as a load-holding device. Block elevated loads.
 - Use wooden blocking or jack stands that are capable of supporting the load.
 - Do not use cement or cinder blocks, as they may shatter under the load.
 - Never go under the jacked equipment until jack stands or blocking materials are in place.
- Keep hands and feet away from pinch points during lifting.

8.5. Abrasive Blasting

A sandblast hood and heavy leather gloves with aprons or blast suits shall be required for all external abrasive blasting operations.

Consult your supervisor regarding ventilation and required respiratory protection and PPE for the specific task.

8.6. Power Washers

Electric-powered power washers shall not be used unless GFCI protected.

Never point or aim the wand at yourself or anyone else.

Do not spray directly at glass or breakable objects.

Use only manufacturer's equivalent pressure-rated parts for repairs.

If the unit is to be unattended, shut it off and relieve trapped pressure by triggering the wand.



Safety Rules Book

8.7. Parts Cleaners/Washers

Keep parts washers away from heat sparks and flame.

Never place hot parts in parts washers.

Use only approved cleaning fluids in the washer; do not add other solvents or mix solvents.

Do not use compressed air to agitate cleaning fluids.

Do not remove any washer fluid from the parts washer. Leave cleaned parts in the parts washer to drain and dry.

Keep washer lids closed when not in use. Do not obstruct covers or restrict fusible links from closing the lid in case of fire.

Never allow the parts washer to operate unattended.

8.8. Use of Solvents, Resins, and Cleaners

Do not use solvents around hot metal surfaces and flames.

Do not smoke or light flames in areas where solvents are used and stored.

8.9. Use of Aerosol Dispensers

Do not puncture aerosol cans.

Store aerosol cans only in designated areas, such as storage cabinets designed for flammables.

Do not store cans in direct sunlight or in high-heat areas where temperatures could exceed 120 degrees Fahrenheit.



Safety Rules Book

8.10. Machine Shops

DO NOT operate shop machines unless all required guards and shields are in place.

Remove chuck keys or collet wrenches from chucks or collets before starting machines.

Keep hands and fingers clear of the point of operation of running machines.

Stop machines before taking measurements, making adjustments, or when changing tools.

Clean up shavings, filings, and other materials generated as a result of your work, when finished.

8.11. Grounds Keeping

Keep all guards on mowers, trimmers, and chain saws in place and do not bypass safety interlocks.

Wear safety glasses and hearing protection as minimum protection when using power equipment.

8.12. Explosives

Only authorized contractors may possess and handle explosives.

Follow the plant's procedures when percussion blasting is being conducted.

9.0 Maintenance Activities

HOT WORK 9.1.

General Hot Work Safety SEE ALSO Section 4.5 Safe Work Procedures - Hot Work Permits.

Keep gas cylinders upright and secured from falling at all times.



Safety Rules Book

Never look directly at electric welding arcs without the use of IR-shaded eye protection rated for electric arc welding.

Do not weld, cut, or heat hooks, chains, or other rigging equipment.

Do not cut, weld, or apply heat directly on concrete.

Identify hot surfaces as "HOT" to caution other workers if hot workpieces are left unattended.

Bleed regulator gauges to "zero" pressure when torch sets are not in use.

Unless cylinder carts are equipped with a 5-foot-high separating plate specifically engineered to meet a 1/2-hour fire resistance rating and prevent the spread of fire, remove regulators, and cap cylinders and return them to storage if torch sets are to remain idle for periods greater than 24 hours.

9.2. Ventilation

Do not allow fumes from Hot Work to accumulate in the work area.

Use ventilation to the extent possible and respiratory protection to avoid Hot Work fume exposures.

9.3. Personal Protective Equipment (PPE) for Hot Work

Company Policy on PPE

All personnel and helpers performing Hot Work activities shall wear PPE as required in Section 2.0 – Personal Protective Equipment and as specified below.

Eye, Face, and Head Protection

- Primary eye protection (side-shielded safety glasses or goggles) shall be worn under welding hoods.
- Do not use welding hoods, goggles, or hand shield lenses with cracks, spatter, or smoke residue.



Safety Rules Book

- Never replace the impact-resistant inner lens of a welding helmet with the non-impact resistant exterior anti-splatter cover lens.
- NEVER wear sunglasses near welding operations. Flash Glasses with IR-shaded lenses (marked with the IR-rating) are allowed to protect against indirect exposure.
- When two or more welders are exposed to each other's welding arcs, IR-shaded flash glasses shall be worn under welding hoods.
- Ear canal protection (such as earplugs, earmuffs, or NOMEX hoods) shall be worn during Hot Work to prevent sparks from entering the ear canal.

Hand Protection

- Wear only full leather gloves during cutting or welding operations.
 - Cotton gloves and leather-pad cotton utility gloves are not permitted.

Foot Protection

Tops of work boots shall be covered to prevent metal splash or sparks from entering the boot.

Body Protection

- Welders and helpers shall keep covered all parts of the body exposed to welding flash.
- Paper or plastic-impregnated paper coveralls ("white Tyvek" or similar) are not permitted unless specifically designed for Hot Work activities.

Respiratory Protection

- Respiratory protection shall be required when welding under certain conditions, such as:
 - On painted surfaces
 - On galvanized or stainless steel
- Consult your supervisor for direction.

Protection of Others

- Welding screens shall be used in shops and other areas where welding is done regularly.
- Outside of shop areas, it is the welder's responsibility to:
 - Alert others in the area that welding is about to begin.



Safety Rules Book

- Use welding screens when others are expected to be exposed to welding flash, slag, or sparks.
- It is the welder's responsibility to prevent hot slag or sparks from contacting other persons or equipment by:
 - Using welding blankets, matting, or covers OR,
 - By taping off areas OR,
 - By using fire watches

9.4. Fire Prevention

Fire Hazards

- If fire hazards cannot be moved or protected against, Hot Work activities shall not be performed.

Fire Extinguishing

- Fire extinguishing equipment capable of extinguishing a Hot Work generated fire shall be available within 10 seconds of unobstructed travel time from the Hot Work.
 - ABC portable fire extinguishers will meet the requirement for initial extinguishing equipment.
- SEE ALSO Section 10.0 Emergency Response – Fire Prevention

Combustibles and Flammables

- All combustible material shall be removed from the 35-foot radius of the Hot Work area.
 - If it is not possible to remove the materials, combustible materials shall be protected.
- Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields.
 - Where floors have been wetted, personnel operating arc welding equipment shall be protected from possible shock.
- Do not allow solvents or flammable paints in areas where Hot Work is being performed.
- No welding, cutting, or other Hot Work activity shall be performed on:
 - Tanks or piping containing fuel or flammable materials.



Safety Rules Book

- Materials, containers, tanks, piping, or other vessels that might produce flammable or toxic vapors when subjected to heat until thoroughly drained and/or cleaned.
- Some substances which might produce flammable or toxic vapors include:
 - Flammable or combustible liquids
 - Degreasing and cleaning solvents
 - Vapors
 - Dusts
 - Preservative coatings
- Any pipelines that contain flammable or combustible materials connected to containers, tanks, or other vessels shall be disconnected or blanked before beginning Hot Work on the containers, tanks, or other vessels.

Spark Control

- Grate surfaces or openings which could allow cutting and welding sparks or spatter to drop onto lower levels shall be covered with fire-resistant material whenever possible.
- If covering is not possible,
 - Tape off areas below OR,
 - Use fire watches.

9.5. Fire Watch

Performance of Fire Watch Duties

- Persons performing fire watch duties shall:
 - Know and understand the communication method to be used for reporting a fire.
 - Not perform other tasks that will interfere with the primary duty to monitor for fires.
 - When necessary, warn others of Hot Work activities and prevent unauthorized entry into Hot Work areas.
 - Once the work is completed remain in the area for the duration of time specified on the Hot Work Permit (1-Hr.) and carefully inspect the work and the adjacent areas for smoldering fires.



Safety Rules Book

- Hot Work in High Challenge Areas shall be monitored for an additional three hours after the 1-Hr. Fire Watch.
- Have fire-extinguishing equipment capable of extinguishing a Hot Work-generated fire available within 10 seconds of unobstructed travel time from the fire watch location.

9.6. Hot Work in Confined Spaces

Use mechanical ventilation to prevent the accumulation of dust, fumes, and vapors.

Use respiratory protection as instructed where mechanical ventilation is not adequate.

Do not locate welding machines and cylinders or manifolds containing oxygen or acetylene or other fuel gases in confined spaces.

Secure equipment on wheels, such as bottle carts and welding machines, to prevent accidental movement.

Take the following precautions when welding or cutting is to be suspended for any substantial period of time, such as overnight:

- Remove electrodes from their holders and place holders so that accidental contact with conductive surfaces cannot occur.
- Shut down welding machines.
- Close torch valves and positively shut off the gas supply at some point outside the confined space.

9.7. Gas Welding and Cutting

Cylinders

- Observe these safety rules for handling cylinders:
 - Keep gas cylinders upright and secured from falling at all times.
 - If you suspect a cylinder is leaking, immediately contact your supervisor.
 - Never attempt to repair defective cylinders or valves. Return them to the supplier for repairs.
 - Never use oxygen for ventilation, cooling, or cleaning purposes.
 - Do not allow a cylinder to become part of an electrical circuit.



Safety Rules Book

- Keep greasy material (hands, gloves, or rags) away from oxygen cylinders and equipment.
- Keep a valve wrench, key, or hand wheel on the cylinder shut-off valve when the cylinder is in use.
- Never hammer a valve open or to close it. Use only hand pressure.
- Do not mix gases in a cylinder or attempt to refill a cylinder.
- When lifting or hoisting a cylinder, follow these rules:
 - To hoist a cylinder, use a cylinder sling or speciallydesigned hoisting cradle.
 - Never use regular slings, chain, or rope to hoist cylinders.
- Hoist the cylinder in an upright position with the cap in place and attach a guideline for control.
- Never lift or carry cylinders by valves or caps.
- When transporting cylinders, follow these rules:
 - Use cylinder carts to manually transport cylinders whenever possible.
 - Unless carried in a truck or cart designed to transport cylinders, regulators shall be removed and caps installed before moving cylinders.
 - Do not place or transport any cylinder in a passengercarrying compartment of a vehicle.
 - Gas cylinders may be rolled on their bottom edge but never dragged.
 - When storing gas cylinders, follow these rules:
 - Do not permit smoking or open flame where cylinders are stored.
 - Store cylinders only in designated storage areas in an upright and secured position with caps in place.
 - Segregate cylinders containing similar gases into groups and do not place them with other cylinders containing different gases.
 - Further segregate gases into “full” and “empty” groups.
 - Keep stored oxygen cylinders separated from fuel-gas cylinders or combustible materials (especially oil or grease) by a minimum distance of 20 feet or by a noncombustible barrier at least 5 feet high having a fire-resistance rating of at least 1/2 hour.

Regulators

- Do not use a leaky or creeping regulator.



Safety Rules Book

- Use pressure-reducing regulators only for the gas for which they were designed.
- Adjust acetylene regulators so that they will not permit discharges greater than 15 pounds per square inch by gauge (psig).
- Close the cylinder valve and allow the gas to be released from the regulator before the regulator is removed from the cylinder.

Hoses

- Protect and maintain hoses as follows:
 - Do not repair a defective hose by taping or other temporary measures.
 - Do not kink hoses or allow them to become kinked.
 - When hoses are used between elevations, secure them in such a manner as to relieve weight and strain on the hose and fittings.

Torches

- Check torch valves for leaks prior to use.
- Use only friction lighters to light torches.
 - Never use matches, cigarette lighters, or other heat sources to light torches.
- Handle lighted torches with great care:
 - Do not hold a lighted torch when climbing ladders.
 - Do not pass a lighted torch from one person to another.
 - Never lay a burning torch down.
 - **NEVER** leave a burning torch unattended.
- At the end of the job or the end of the work shift, close torch valves and shut gas supplies off at the cylinder.
- Preventing Reverse Flow and Flashback DO NOT use torch sets unless combination reverse-flow check valves/flashback arrestors are installed on BOTH fuel gas and oxygen lines at the torch AND regulators.

9.8. Electric Arc Welding and Cutting

Grounding

- Frames of arc welding and cutting machines shall be grounded either through a third wire in the cable containing the circuit conductor or through a separate wire which is grounded at the source of the current.



Safety Rules Book

- Do not allow welding current to pass through pipelines containing flammable gases or liquids, electrical conduits, chains, wire rope, cranes, hoists, compressed gas cylinders, or machine bearings.
- Do not connect a ground cable to any type of piping unless you are welding on the piping and the piping has been isolated and purged of all flammable materials.
- 480-volt extension cords used to supply power to welding machines shall be protected by use of a GFCI or shall have a current assured equipment grounding conductor successful test verification color-code attached.

Assured Equipment Grounding Conductor Test Color Codes			
White - Winter (Jan. 1 – Mar. 31)		Green - Spring (Apr. 1 – Jun. 30)	
Red - Summer (Jul. 1 – Sept. 31)		Orange - Fall (Oct. 1 – Dec. 31)	

Welding Cables

- Do not coil or loop welding electrode cable around parts of your body.
- Inspect work and electrode lead cables for wear and damage before each use.
- Do not use cables with deep cuts, cracks, or exposed conductors, or connectors with damaged insulation until they are repaired.
- Use only insulated locking connections when welding cable extensions are required.
- Do not use welding cables with repair splices within 10 feet of the electrode holder.

Electrodes and Holders

- Use only manufactured electrode holders with insulated jaws.

Welding Operations

- Do not stand in water while welding.
- Do not use wet welding machines—report the condition to your supervisor.
- When welding machines are in a group or are remote from the work, each welder shall provide a positive method of identifying their machine.
- Except in an emergency, no one shall adjust or tamper with the controls of a welder's equipment without permission of the welder.



Safety Rules Book

- When electrode holders are to be left unattended, the electrodes shall be removed and the holders shall be so placed or protected that they cannot make electrical contact with persons or conductive objects.
- Do not cool energized electrode holders in water.

10.0 EMERGENCY RESPONSE

10.1. General Emergency Response

Follow the emergency plan requirements and any instructions given to you by your supervisor or the Control Room.

Report the nature and extent of any emergency incidents to your supervisor immediately.

- Route calls for outside emergency service through the plant Control Room.
- Do not call 911 without authorization.

During evacuations, proceed directly to your assigned assembly point and report to your emergency contact.

Do not make statements or provide information regarding an emergency situation to the media or other agencies.

- Direct all questions to the Plant Manager.

10.2. Fire Prevention

Smoking is prohibited at all times on Company property with the exception of outside designated smoking areas.

Ignition sources, such as smoking, open flame, sparks, etc., shall specifically not be allowed in fuel storage areas, particularly in wood storage areas.

Open burning is not permitted without authorization.

Keep areas around buildings, structures, and equipment free of combustible fire hazards.



Safety Rules Book

DO NOT fill portable fuel containers while they are in a vehicle cab or bed to prevent possible static charge. Proceed as indicated below:

- Stop the engine.
- Take containers from cab or bed and place on ground. Do not smoke or allow any open flames—turn off battery-powered equipment like cell phones, two-way radios, and pagers if fueling gasoline.
- Make sure the safety can spout or hose nozzle touches the side of the tank opening to prevent static electricity discharge.
- Do not leave a fueling hose unattended when fueling.
- Be careful to avoid spills. If a leak or spill occurs, report it immediately.

Store flammable liquids, such as gasoline, in approved red, metal safety containers, clearly marked and equipped with a flash arrestor.

- When dispensing flammable liquids, ground and bond all containers.
- Flammable liquids stored inside shall be kept in cabinets or rooms designed for that purpose.
- Do not place or store flammable material where it could be ignited by malfunctioning electrical equipment.

Store combustible liquids, such as fuel oil or kerosene, in approved safety containers that are clearly marked.

- Combustible liquids stored inside shall be kept in cabinets or rooms designed for that purpose.

Do not block access to fire hydrants, fire extinguishers, alarm boxes, and other fire-protection devices.

- Do not park vehicles within 25 feet of fire hydrants.

Attempt to extinguish a fire only if:

- You have first reported the fire.
- You are properly trained, authorized, and equipped.
- It can be done without endangering yourself.

Never use water to extinguish fires on energized lines or equipment.



Safety Rules Book

10.3. Bloodborne Pathogens

Treat all human body fluids as if known to be infectious.

At a minimum, use safety glasses, chemical resistant gloves, and protective masks as protection against contamination by bodily fluids.

Report to your supervisor all skin, eye, nose, and throat contacts with bodily fluids as well as any cuts and punctures caused by objects suspected of being contaminated with human bodily fluids.

Using a disinfectant, decontaminate all surfaces that are contaminated with human body fluids.

10.4. Environmental Safety

In compliance with the Company's environmental protection policy, take measures to prevent:

- Spills of oil or other material
- Discharge of contaminants to sewers, waterways, or the ground
 - Do not release chemicals, oils, fuels, solvents, etc. into plant drains, sinks, or sewers.
- Uncontrolled emissions, releases, or unauthorized burning

If you observe a leak or spill of any quantity, immediately notify the Control Room.

Do not respond to spills unless you are trained and authorized by your supervisor to respond.



Safety Rules Book

11.0 High-Risk Rules

Working safely and maintaining a safe and healthy workplace is a condition of employment and is not negotiable. Each employee is responsible for performing work in accordance with all Company safety rules and requirements, as described in the Shasta - SRM Employee Handbook, the Safety Rules Book, and facility specific rules. The following selected High-Risk Rules address situations that present a significantly higher potential to result in severe safety consequences to individuals and fellow employees if they are not followed. Violation of a High-Risk Rule will be addressed in accordance with Shasta – SRM’s Progressive Discipline Policy.

- 1. Always Lock Out and verify zero energy state in accordance with facility procedures before working on any equipment or removing or replacing guards. Do not initial or sign a tag or permit without performing the required verifications.**
- 2. Do not enter a confined space unless a Confined Space Permit is posted at the entrance of the confined space and an Attendant is in place, or the space has been posted as a Non-Permit Required Confined Space.**
- 3. Do not at any time position yourself under loads that are solely suspended from cranes, hoists or other lifting equipment, or lift loads over persons that are not provided with overhead protection.**
- 4. Do not stand on or walk across an operating conveyor or screw auger, or directly contact any moving equipment with any part of your body at any time.**
- 5. Only a Qualified Electrical Person (QEP) is permitted to work on electrical equipment or circuits greater than 50 volts.**
- 6. Unless otherwise instructed by Shasta - SRM Supervision, always wear a full body harness and lanyard attached to an approved anchorage point, when positioned more than 4 feet above a lower level and exposed to a fall hazard – unprotected sides or edges, unprotected floor holes, or unprotected wall openings.**

It is a violation of these High-Risk Rules to assign someone to perform work that violates a High-Risk Rule.



Safety Rules Book

12.0 Definitions / Acronyms

- **ANSI:** American National Standards Institute
- **Approved Anchorage Point:** A secure point of attachment for a personal fall protection lifeline or lanyard, independent of the means of supporting or suspending a person, approved for use by supervision.
- **Assured Equipment Grounding Conductor Test Program:** A testing and identification program used where ground fault circuit interrupters are not available or are not able to be used. Cord sets, receptacles which are not part of the permanent wiring of a structure, and cord and plug connected equipment required to be grounded are tested quarterly for continuity, correct attachment and effective ground. A quarterly color code is attached as verification of successful testing.
- **Authorized or Authorized Work:** Performed with Shasta - SRM supervisory approval by trained persons.
- **Ash Loading / Unloading Area:** Area used for loading or unloading of ash.
- **Breaker:** An electrical circuit breaker.
- **Breaker (or Switch) Closed:** A breaker or switch position that will allow the flow of electricity.
- **Breaker (or Switch) Open:** A breaker or switch position that will prohibit the flow of electricity.
- **Buddy System:** A safe work practice that requires two or more persons when performing a potentially hazardous or physically demanding task.
- **CEMS:** Continuous Emissions Monitoring System
- **Circle-for-Safety:** An informal pre-operational walk-around inspection, particularly for Company vehicles—trucks, pickups, SUVs, and cars to observe general safety conditions.



Safety Rules Book

- **Company:** Shasta - SRM
- **Conductive:** Readily able to transfer or carry electrical energy.
- **Deceleration Device:** Any mechanism, such as a rope grab, rip-stitch lanyard, specially woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc., which serves to substantially dissipate or limit the energy imposed on a person during fall arrest.
- **Designated Area:** A distinct portion of a walking-working surface delineated by a perimeter warning line in which temporary work may be performed without additional fall protection. A "Designated Area" for fall protection purposes may be used under the following provisions: - Employees remain within the designated area while work operations are underway; - The work be of a temporary nature, such as maintenance on roof-top equipment; - Established only on surfaces that have a slope from the horizontal of 10 degrees or less (or slope of 4 in 12 or less); - The perimeter of the designated area be delineated with a line consisting of a rope, wire, or chain attached to stanchions in accordance with the following: - Stanchions must be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion. The force must be applied 30 inches above the work surface and perpendicular to the designated area perimeter, and in the direction of the unprotected side or edge; o The line must have a minimum breaking or tensile strength of 500 pounds. o The line must be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over; o The line must be installed in such a manner that its lowest point (including sag) is no less than 34 inches (86 cm) or more than 39 inches (99 cm) from the walking-working surface; and o The line forming the designated area must be clearly visible from any unobstructed location within the designated area up to 25 feet (7.6 m) away, or at the maximum distance a worker may be positioned away from the line, whichever is less. - Stanchions must be erected as close to the work area as is permitted by the task. - The perimeter of the designated area must be erected at least 6 feet (1.8 m) from the unprotected side or edge. (When mobile mechanical equipment is being used, the line must be erected not less than 6 feet (1.8 m) from the unprotected side or edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet (3 m) from the unprotected side or edge which is perpendicular to the direction of mechanical equipment operation.) - Access to the designated area must be by a clear path, formed by two lines, attached to stanchions that meet the strength, height, and visibility requirements noted above.



Safety Rules Book

- **Energized:** Carrying electricity or connected to a source of electrical energy.
- **Energy Control Procedure (ECP):** A procedure for the control of hazardous energy for specific plant equipment or systems. The ECP contains detailed instructions for shutdown, isolating, dissipation of energy, locking/tagging, verification of zero-energy state and restoring equipment to service.

- **Energized Electrical Work Permit:** A permit that must be approved before work can begin on energized electrical equipment for purposes other than testing or troubleshooting. The permit describes the justification of why the circuit/equipment cannot be de-energized or the work deferred until the next scheduled outage and includes safety procedures, safe work practices and PPE that will be used to safely perform the work.

- **Electrical-Qualified Person:** A person, authorized by plant management, who is knowledgeable in the construction, operations, and maintenance of electric power generation and transmission equipment as well as with the associated hazards. Also known as a “Qualified Electrical Person” (QEP). An Electrical-Qualified Person must be able to:
 - Distinguish exposed energized parts from other parts of electric equipment
 - Determine the nominal voltage of exposed energized parts
 - Determine the minimum approach distances corresponding to the voltages to which the Electrical Qualified Person will be exposed
 - Properly use special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools for working on or near exposed energized parts of electric equipment

- **ESP:** Electro-Static Precipitator – An air pollution control device that uses high voltage DC current to remove particulate from flue gas.

- **Fall Hazard (to a lower level):** A person positioned more than 4 feet above a lower level and exposed to:
 - Unprotected sides and edges: Any side or edge of a surface (except at entrances to points of access such as stairways and ladders) where there is no wall or guardrail system or warning line system OR,
 - Unprotected floor holes: An opening measuring 2 inches or more in its least dimension, in a floor, roof, or other walking-working surface through which persons may fall that is not protected by a guardrail system or rated cover, Note: Does not apply to floor holes less than one foot in their least dimension provided for passage of machinery, piping, or other equipment that may expand, contract, vibrate, etc. when guarded by a toe-board or equivalent means, OR,



Safety Rules Book

- **Unprotected wall openings:** An opening at least 30 inches high and 18 inches wide through which persons may fall that is not protected by a guardrail system or rated cover
- **Fall Protection:** A guardrail system, floor or wall opening covers, a safety net, or personal fall arrest system. Note: A "Designated Area" may be used for temporary work where other fall protection systems are not practical. See definition for specific requirements.
- **Fuel Yard:** Area used for loading, unloading, stockpiling, or handling fuel, such as wood chips.
- **Grounded:** Connected to earth or to some conducting body that serves in place of the earth so that electricity may safely pass through.
- **Guardrail System:** A fall protection system which consists of a top rail 42 (up to +3 inches) high, a toe board 4 inches high, and a mid-rail located between the top rail and toe-board. A guardrail system must be capable of withstanding a force of 200 pounds in any outward or downward direction. For excavations, an earthen barricade at least 42 high will provide equivalent protection.
- **Hazardous Chemical:** Any chemical that is a physical hazard or a health hazard. All hazardous chemicals must have a corresponding SDS.
- **High Wind:** A wind of such velocity that could cause a person to be exposed to being blown from elevated locations, or that could cause an employee or material handling equipment to lose control of material being handled, or that could expose a person or equipment to other hazards. Winds exceeding 40 miles per hour or 30 miles per hour if material handling is involved are normally considered as "high winds" unless precautions are taken to protect persons from the hazardous effects of the wind.
- **High Temperature Task:** Work that exposes employees to ambient or surface temperatures > to 120 deg. F, requiring the use of specified thermal protective PPE and apparel.
- **High Voltage:** Voltages at 600 volts and above. (Cal/OSHA defined)



Safety Rules Book

- **Hot Work:** The performance of welding, cutting, brazing, heating, grinding, or similar operations involving open flames, high temperatures, or sparks.
- **ID Fan:** Induced Draft Fan. A fan, usually located near the stack, used to maintain a negative pressure on balanced-draft boilers.
- **Incident:** An unplanned event that interrupts the normal progress of an activity being performed by employees, contractors, or vendors and results, or has the potential to result in injury, illness, or equipment damage. ALL workplace injuries and illnesses, near misses, equipment damage, or vehicular accidents are considered incidents.
- **Insulated:** Reducing or preventing the transmission of heat, sound, or electricity.
- **IR:** Infra-Red
- **Job Hazard Analysis (JHA):** An analysis of each step of a job task performed in order to identify potential risks and specifying preventive measures, including safety and energy control procedures and personal protective equipment (PPE).
- **Job Safety Briefing:** Job-specific safety planning sessions performed by the employee and/or the Supervisor/lead (depending on the job hazards and frequency) prior to performing a task, where detailed hazards and hazard elimination or control methods that will be used to safely perform the work are communicated. If the jobs to be performed during the shift are repetitive and similar, a Pre-Shift Safety Briefing at the beginning of the shift that covers the hazards, and the corresponding hazard elimination and control methods is sufficient to fulfill this requirement.
- **Lockout/Tagout (LOTO) or Lockout:** The placement of a lockout and/or tagout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energyisolating device and the equipment being controlled cannot be operated until the lockout device is removed. See Also Lockout-Affected Employee and LockoutAuthorized Employee.
- **Lockout-Affected Employee:** An employee whose job requires operating or using a machine on which servicing, or maintenance is being performed under Lockout/Tagout or whose job requires working in an area in which servicing, or maintenance is being performed. In most cases, the Affected Employees are the on-shift operators.



Safety Rules Book

- **Lockout-Authorized Employee:** An employee trained to lock out or tag out machines or equipment in order to perform servicing or maintenance on that equipment, including lubrication, cleaning/unjamming, or making adjustments.
- **Non-Conductive:** Not readily able to transfer or carry electrical energy.
- **Pre-Shift Safety Briefing:** Safety meetings performed by the Supervisor/lead as early in the work shift as possible (preferably within the first hour), and prior to the start of any work with hazardous exposures, where general hazards and hazard elimination or control methods that will be used to safely perform work are communicated. The briefing can be conducted on an individual work-group basis, or jointly with all on-shift employees.
- **PM:** Preventive Maintenance
- **Primary Eye Protection:** Safety glasses with permanently attached side-shields or impact-resistant goggles. Note: A full-face respirator with an impact-resistant lens offers equivalent protection as goggles.
- **Permit-Required Confined Space (PRCS):** A confined space that requires a permit for entry, because the space contains, or has a potential to contain, a hazardous atmosphere OR which contains a material that has a potential for engulfing an entrant OR has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section, OR contains any other recognized potentially-serious safety or health hazard to the person entering (entrant). See Also PRCS Attendant and PRCS Entrant.
- **PRCS Attendant:** An employee trained and authorized to remain outside the entrance of a Permit-Required Confined Space to maintain a log of entrants, monitor conditions in the space, maintain communications with entrants, and order evacuation of the space if a hazardous situation develops.
- **PRCS Entrant:** An employee trained and authorized to enter a Permit-Required Confined Space.
- **Personal Fall Protection:** Equipment worn to arrest a fall from a working level consisting of a full body harness and lanyard or deceleration device connected to an approved anchorage point.



Safety Rules Book

- **Pinch Point or Pinch Point Position:** Located between a fixed and movable object with the potential for injury.
- **PPE:** Personal Protective Equipment
- **(Fall) Restraint System or Restraint Lanyard:** A system or lanyard that prevents a person from becoming exposed to a fall hazard, such as stepping up onto a guardrail or stepping outside or over-reaching a railing. On elevated work platforms, a restraint lanyard is attached from the full body harness to a manufacturer's approved anchorage point on the elevated work platform or bucket, preventing the person from being exposed to a fall hazard.
- **Safety Contact:** A review of relevant safety procedures, hazard alerts, or other safety topics that is conducted weekly or as needed intended to maintain safety awareness.
- **Scaffold Competent Person:** A person trained in the erection and inspection of scaffolding.
- **SCBA:** Self-Contained Breathing Apparatus
- **SDS:** Safety Data Sheet. Information prepared by the manufacturer or importer of chemicals and other materials that describe potential physical and health hazards, routes of exposure, PPE requirements and precautions for safe handling and use, and emergency and first-aid measures to be taken for exposures to the material.
- **Supervisor:** The person authorized by management to plan, direct and coordinate employees' work.
- **Three-Point Contact:** A method for climbing which requires that both hands and one foot, OR both feet and one hand, be in contact with the climbing surfaces (ladder, grab rails, handholds, etc.) at all times.
- **Unauthorized Work:** Work performed without Shasta - SRM supervisory approval such as (1) performance of tasks without qualification or training, (2) deviations from standard procedures, or (3) going beyond the original scope of a work assignment.
- **Unsafe Act:** An action that creates the potential for injury.



Safety Rules Book

- **Unsafe Condition:** A physical condition that creates the potential for injury.
- **Valve Closed:** A valve position that will prohibit materials to flow through.
- **Valve Open:** A valve position that will allow materials to flow through.
- **Work Group Leader:** The person coordinating the activities of a specific job, task, or project.
- **Yellow Iron:** A generic term for mobile “heavy equipment” or “construction equipment” including front-end loaders, backhoes, bulldozers, graders, off-road trucks, etc.
- **Zero-Energy State:** The condition of a machine or equipment after isolation from all energy sources and after the release of any stored energy.
- **Zero Tolerance:** A core value that will not permit the continued existence of unsafe conditions or the performance of unsafe acts.

13.0 Revision History

Revision level Approval Date Summary of changes Approved by:	Revision level Approval Date Summary of changes Approved by:	Revision level Approval Date Summary of changes Approved by:	Revision level Approval Date Summary of changes Approved by:
0	04/01/2011	Initial Release	Management
1	7/13/2021	SRM Updates	Tony Christofferson