

SUNFLOWER ELECTRIC POWER CORPORATION
HOLCOMB, KANSAS

HOLCOMB STATION
UNIT NO. 1

CONTRACTOR SAFETY RULES

PREFACE

It is intended that this safety manual will complement each contractor's safety program and activities. Together, this program and the contractor's program will be coordinated towards a total safety effort.

The existence of this safety program does not relieve the contractor or sub-contractor of his safety responsibilities as safety must be a primary consideration in all contractor-related activities to be undertaken on this plant site.

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PLANT SITE ACCESS AND SECURITY

1. Only authorized personnel shall enter the plant site.
Personnel shall enter and leave the plant site only through main front gate.
The times the gate will be open and closed are as follows:
Standard Workday (When Service Building is Open):
 - Gate will remain open between 6:15 A.M. and 8:15 A.M.
 - Gate will remain open between 3:30 P.M. and 5:15 P.M.
 - Gate will remain open between 6:15 P.M. and 7:15 P.M.
 - Except for times above the gate will remain closed.Holiday Week:
 - Gate will remain open between 6:15 A.M. and 8:15 A.M.
 - Gate will remain open between 3:00 P.M. and 5:15 P.M.
 - Gate will remain open between 6:15 P.M. and 7:15 P.M.
 - Except for times above the gate will remain closed.Weekends and Holidays:
 - Gate will remain open between 6:15 A.M. and 7:15 A.M.
 - Gate will remain open between 6:15 P.M. and 7:15 P.M.
 - Except for times above the gate will remain closed.Upon reaching the gate please identify yourself, company associated with and purpose of visit. If a Sunflower employee needs to be notified of your arrival please indicate this at the gate when checking in. A log book is kept of all persons entering and leaving the plant site.
2. Parking areas for contractor employees shall be designated by the Sunflower Electric Job Coordinator.
3. Visitors will not be permitted on the plant site unless they have proper permission from the Sunflower Electric Job Coordinator and Shift Supervisor.
4. Posted speed limits, seat belt laws, and Kansas driving laws shall be observed while on the plant site.
5. The consumption of intoxicants or illegal use of drugs while on this plant site is forbidden. Employees taking prescription drugs should inform their supervisor.
6. Possession of firearms or other weapons on plant site is forbidden.
7. A list of all employees will be furnished to the Job Coordinator for each day.

CONTRACTORS RESPONSIBILITY

1. The contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs for the safety of their employees, the public and Sunflower Electric employees who were connected with the work.
2. The contractor shall provide the necessary safety equipment, supplies and personal protective equipment for their employees to prevent personal injury or illness, damage or loss to property.
3. The contractor shall comply with all applicable provisions of Federal, State, and Municipal safety regulations and building and electrical codes, as well as the safety rules and procedures of Sunflower Electric.
4. In the event of an incident or accident, the immediate supervisor and Sunflower Electric Job Supervisor shall be notified at once. Copies of the accident reports shall be given to the safety office.
5. The Contractor shall:
 - a. Plan and schedule work operations in such a manner as to eliminate personal injury or property damage.
 - b. Correct unsafe acts on the part of employees by training, the use of good discipline and proper placement of employees.
 - c. Eliminate unsafe conditions to the best of their ability and or prompt reporting of the conditions to proper authority for immediate correction.
 - d. Advise employees of the hazards of their respective jobs and instruct them as to the safe practices and procedures which are required.

CLEARANCE PROCEDURES

In general, power plants have enjoyed an excellent safety record through the years. This is because employees are made aware of the extreme pressures, temperatures, and voltages involved, and the hazards associated with working on large machinery.

Therefore, all contractor's employees shall be made aware that pressures in excess of 3000 PSI, temperatures 1000 degrees F or more, acids and caustics may be present in any of the piping or equipment located throughout the plant. Voltages used here range from 120v to 345,000 volts.

A clearance shall be required when work is to be performed on any equipment connected to a source of energy: electrical, thermal, pressure, chemical, or mechanical.

If a clearance is required for the work or a portion thereof, the contractor shall not begin the work until notification has been received from the Sunflower Electric Job Coordinator that the clearance is in effect. Clearances shall be issued to the Sunflower Electric Job Coordinator only.

It is the contractor's responsibility to familiarize their employees with the clearance procedure, and the hazards involved before starting the work. The Sunflower Electric Job Coordinator will review with the Contractor, Supervisor or Foreman; the procedures and hazards involved pertaining to the clearance issued.

The Contractor's personnel shall not at any time start, stop, or in any manner operate, connect cable terminators or piping or in any manner interface with existing equipment or facilities which are in service, operation or energized, without prior approval or a clearance issued to the Sunflower Electric Job Coordinator.

If there is ever a doubt about the presence of chemicals, radiation, high pressure or temperatures, or an energized circuit, the Job Coordinator shall be contacted before proceeding with the work.

The Confined Space Entry Procedure is an addendum to the Clearance Procedure and entry permits will be issued with the clearance where applicable.

PERSONAL PROTECTIVE EQUIPMENT

HEAD PROTECTION

This entire plant site has been designated as a "Hard Hat" area, except in control rooms, offices, and lunch areas.

EYE PROTECTION

Suitable eye protection must be worn at all times when eye injury hazards are present.

The forms of eye protection required for each individual job may vary widely and therefore recognized proper equipment and that prescribed by the Occupational Safety and Health Act standards must be worn when necessary.

FOOT PROTECTION

If the task being performed presents foot injury possibilities, suitable foot protection must be worn. This foot protection may be in the form of safety-toed footwear, or metatarsal arch protectors.

HEARING PROTECTION

Hearing protection in the form of properly fitted ear muffs or plugs shall be worn in any area where hazardous noise levels and work durations dictate, in accordance with existing applicable standards.

High noise hazard areas are posted in various locations in the plant. If you are to work in one of these posted areas, you are required to wear hearing protectors according to the sign, when the area equipment is running.

FALL PROTECTION

SAFETY HARNESSSES

1. Safety harnesses must be worn and properly tied off to a life line or lanyard when working on:
 - a. Any elevated work area where you have not been provided with protection to keep you from falling, such as, nets, railings, or adequate flooring.
 - b. Any scaffolding which has not been equipped with complete and proper hand railings.
 - c. Any flat roofs or flooring which has not been equipped with hand rails within four feet of the edge or of the opening.
 - d. When going to or from and working on unguarded; floor openings, wall openings, planks, steep slopes, adjoining levels, machinery, trays, tanks, platforms, walkways, or similar equipment.
 - e. When going to or from and working on any beam, pipe, conduit, ductwork, structural member or similar equipment.
 - f. When working on a four foot or taller ladder within three feet or less of a handrail, where the floor or platform is ten feet or more above ground level.
 - g. When working from a suspended platform, manlift, bos'n chair, work cages or baskets supported by a crane, hoist or winch or similar equipment.

LIFELINES AND LANYARDS

1. Lifelines must be secured above the point of operation and be capable of supporting a minimum dead weight of 5,400 pounds.
2. Safety lanyard shall be a minimum of 1\2" nylon or equivalent and with a maximum length to allow for a fall of no greater than six (6) feet.
3. Any lifeline, lanyard or safety harness subjected to inservice loading shall be removed from service and not used again.

GENERAL REQUIREMENTS

1. All floor openings shall be completely planked over or barricaded with approved railings and kick plates.
2. Floor planks or grating that are temporarily removed to permit work shall be replaced as soon as possible or the open area shall be guarded.

NOTE: No floor opening is to be left unattended until proper cover or protection is in place.

3. Riding of a crane hook, headache ball, or load at any time is PROHIBITED.

SAFETY NETS

1. When safety harnesses, lifelines or lanyards, or the use of ladders, scaffolds, platforms, or temporary floors is impractical for fall protection, safety nets shall be provided by the contractor.
2. Work shall not begin until the nets have been installed and proof tested according to OSHA 1910.502 proposed fall protection systems criteria and practices and ANSI A10.11-1971.

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Each employer has been charged with the responsibility to inform his employees of the safety and health protection provided under this act.

For the contractor to comply with the posting requirements of the act, the following is mandatory:

1. COMPLIANCE POSTER

An approved full-size poster must be prominently posted within the area to which the employees usually report to work.

This poster briefly presents the intent and coverage of the act and responsibilities of both the employer and the employees.

NOTE: The poster must be maintained in good condition and must not be covered with other materials.

2. EMERGENCY NUMBERS

The emergency telephone numbers of the doctor, clinic, hospital, fire and rescue units must be posted prominently at the job site.

FIRE PREVENTION

The Sunflower Electric Job Coordinator and control room shall be notified at once in the event of a fire.

Good housekeeping procedures at facility structures and storage areas will be demanded and enforced. Each contractor and/or subcontractor will be assigned areas of storage on the plant site or provide a means of controlling this requirement.

Segregated storage of non-compatible products and materials will be maintained by each contractor.

Combustible materials, where necessary, will be kept to a minimum and additional or special fire protection devices provided where necessary.

A weld\burn permit system shall be required and enforced at all areas of the plant site. Weld\burn permits are issued for a 24 hour period. Work lasting longer than 24 hours will require a new permit to be issued each day. Weld\burn permits are to be obtained through the Sunflower Electric Job Coordinator.

Open burning and such practices as open fire barrels for warming purposes will not be allowed.

All temporary heating devices must be of approved type, properly installed, and inspected prior to use.

Internal combustion engine driven equipment installed in buildings or structures shall be properly installed and adequate clearance maintained.

NOTE: Such equipment will be shut down during refueling operations.

Only approved containers and systems shall be used for storage and dispersing of flammable and combustible liquids such as gasoline, paints and solvents.

Fire exits, means of egress, and access areas to portable fire fighting equipment, hydrants, pumper connections, and hose lines shall be maintained clear at all times.

Designated "NO SMOKING" areas shall be observed.

All electrical installations and lighting, both temporary and permanent, shall be properly installed.

ARC WELDING AND CUTTING

PERSONAL PROTECTIVE EQUIPMENT

1. Eye protection is required for both the welder and helper.
2. Respirators and/or local ventilation must be used where required and on metals that are galvanized, cadmium coated, chrome bearing, lead based, or mercury bearing.
3. Air line respirators shall be used when welding or cutting confined spaces on metals of recognized toxicity.

EQUIPMENT AND ACCESSORIES

1. Welding cables in need of repair shall not be used.
2. All welding leads, cables and hoses must be safely positioned and secured to prevent tripping hazards and/or damage to the cables, leads, or hoses
3. The frames of welding and cutting machines shall be grounded.
4. Ground returns must be of safe current carrying capacity, be bonded where necessary, and be inspected periodically for soundness.
5. Piping containing gases or flammable liquids shall not be used for ground returns.
6. Conduits containing electrical circuits shall not be used as ground returns.

EMPLOYEE INSTRUCTIONS

1. Electrodes must be removed from the electrode holder when holders are to be left unattended.
2. Electrode holders must be safely placed or protected so that they cannot make electrical contact with objects or employees.
3. When arc welding or cutting operations are to be stopped for any appreciable length of time, or when machine is to be moved, the power supply switch to the equipment shall be opened.
4. Used, expended or contaminated welding electrodes shall be properly disposed of in a suitable container.

FIRE PREVENTION

1. Fire watchers shall be required whenever welding or cutting is performed in locations where a fire might develop.
2. Cutting or welding shall not be performed unless the atmosphere is non-flammable and unless combustibles are separated from or protected from fire hazards.

COMPRESSED GAS

STORAGE

Cylinders must be secured in an upright position at all times with caps in place.

TRANSPORTATION OF CYLINDERS

1. When being transported by truck, cylinders must be secured and caps must be on all cylinders which are equipped to received them.
2. When hoisting with a crane or other device, a rack designed for hoisting purposes must be used.
3. Cylinder valves must be closed at any time cylinders are moved.
4. A fire extinguisher should be mounted on each portable oxy-acetylene cart.

USE OF CYLINDERS

1. No defective or damaged cylinder can be used.
2. Cylinders containing oxygen or flammable gases shall not be taken into confined places.
3. Neither full nor empty cylinders shall be used as rollers or supports.
4. Cylinders shall be placed where they cannot become a part of an electrical circuit.
5. A suitable truck or cart shall be used to support cylinders.
6. Welding, cutting or other heat producing operations must be performed at a safe distance from oxygen or flammable gas cylinders.

EMPLOYEE INSTRUCTIONS

1. Leave wrench on cylinder when wrench is required.
2. Regulating valves must always be used.
3. Always replace cylinder caps when regulators have been removed.
4. Do not light torch from hot work.
5. Keep oxygen and fuel gas cylinders away from grease and oil.
6. Hoses must be kept clear of passageways, ladders, and stairs.

7. Remove from service any cylinder that leaks, has leaky valve, or is otherwise defective.
8. Oxygen must never be used to blow off clothing, for ventilating, for comfort purposes, or for cleaning work.

EXCAVATING-TRENCHING

INSPECTION REQUIREMENTS

Prior to opening any excavation, the location of underground installations shall be determined. When an excavation nears the estimated location of underground installations, the exact location shall be determined by hand digging.

NOTE: At any time evidence of possible cave-in or movement is detected, all work in excavation will stop until made safe.

SHORING AND BRACING REQUIREMENTS

1. All excavation walls and faces, of 5 feet or more in depth, shall be guarded by a shoring system, be properly sloped, or otherwise protected when employees are exposed to danger from moving ground.
2. All trench banks more than 5 feet high shall be shored, properly sloped, or protected by equivalent means.
3. All supporting systems shall be designed by a qualified person and meet or exceed accepted engineering requirements.
4. Open excavations shall be barricaded.
5. When mobile equipment is allowed adjacent to an excavation, stop logs or barricades shall be installed.

NOTE: Properly designed and constructed trench shields or boxes may be used in lieu of shoring or sloping if such device provides equal or greater protection than required protection.

GENERAL REQUIREMENTS

1. Excavated or other material shall be stored and retained at least 2 feet or more from edge of excavation.
2. Water shall not be allowed to accumulate in an excavation when practical.
3. When employees or equipment are required or permitted to cross over excavations, walkways or bridges equipped with approved guardrail shall be provided.
4. Excavations 4 feet or more in depth shall be equipped with ladders or stops whereby no more than 25 feet of travel is necessary to reach such means of exit.

HOISTING EQUIPMENT
CRANES - DERRICKS - HOISTS

GENERAL REQUIREMENTS

1. The manufacturer's specifications and limitations must be adhered to.
2. Rated load capacities, speeds and special hazard warnings must be posted on each piece of equipment.
3. Hand signal illustrations must be posted.
4. A contractor-designated competent person must be assigned to inspect all machinery and equipment prior to each use and during each use.
5. Wire rope and rigging must be taken out of service when defective.
6. All reciprocating or rotating parts of machinery which expose employees to injury must be guarded.
7. Fire extinguishing equipment must be mounted in or near cab or operator stations.
8. Safe distances from energized equipment and electric lines as published, must be maintained.

NOTE: At no time shall a boom be allowed to come closer than 10 feet, from any angle, to a power line regardless of voltage.

OPERATION

1. Only qualified and experienced operators shall be allowed to operate equipment.
2. Loads shall not be swung or hoisted over employees.
3. Tag lines must be used to control loads.
4. The operator shall not leave his position at the controls while a load is suspended.
5. Only the signalman will give signals to the operator.

NOTE: The STOP signal is to be recognized by the operator no matter who gives it.

6. Hand signals to the operator shall be in accordance with ANSI standards (OSHA 1926.550).

CRANE SUSPENDED WORK PLATFORMS

USE

Such devices may be used only where other means cannot be provided or for emergency use.

DESIGN

1. All platforms must be designed by a qualified engineer.
2. Maximum load capacity must be posted on the work platform.
3. Standard railings, and toeboards must be installed.
4. Gate to platform must be provided with locking device.
5. A positive cage to hoist-line connection is required.
6. Platform and accessories must be designed with a safety factor of at least six (6).
7. Unrestricted rotation of the platform is prohibited.

OPERATION AND USE

1. Only cranes with power-up and power-down capabilities shall be used.
2. The platform shall never be "free wheeled" and must be powered up and down.
3. No crane travel is allowed while persons are aloft in platform.
4. All persons aloft in the platform must use a safety belt.
5. A platform cannot be used where contact with electrical conductive devices is possible.

HOUSEKEEPING

CONTRACTOR RESPONSIBILITY

1. The contractor shall, at all times, maintain the premises free from accumulations of waste material, trash, and debris caused by his work.
2. All tools, scaffolding, rubbish, and materials shall be removed from the work area at the completion of the work.
3. All waste material shall be properly and safely disposed of by the contractor.

MATERIAL STORAGE ON SITE

CONTRACTORS RESPONSIBILITIES

Purpose: The overall purpose of this portion of this safety program is to provide for the safe and orderly receipt, storage and dispensing of materials and products necessary to each contractor and subcontractor operation.

These responsibilities will include the following:

1. Proper storage methods and designated areas for hazardous, flammable and combustible liquids.
2. Proper stacking of materials as regard to size, type, and length in piles, shelves, racks, or bins as necessary.
3. Maintenance of good housekeeping procedures throughout the facilities or areas at all times.
4. The proper disposal of waste, scrap materials, and hazardous waste.
5. The segregation of non-compatible materials.
6. The posting of warning signs, tags, or bulletins as may be required.
7. Providing the necessary grounding and bonding required for specific materials.
8. Proper receiving and dispensing of incoming and outgoing materials which will include chocking and blocking of trucks and railroad cars during loading and unloading operations.
9. Providing proper personal protective equipment that may be necessary for given products.
10. Assuring that only properly trained personnel are used in the handling of hazardous materials and to assure that proper material handling methods are used.

HAZARDOUS MATERIALS AND SPILLS

GENERAL

1. All contractors are required to notify the job coordinator of any activity that will result in a waste product (oil, solvent, acid, paint thinner, mineral spirits, heavy metals sludge as a result or painting, cleaning etc.)
2. Contractors are also required to dispose of the waste product involved in such a manner that is in compliance with applicable state and federal statutes and regulations.
3. In the event of any spill of hazardous material and/or waste product, the contractor is required to notify the job coordinator immediately.

CONTRACTOR OWNED LADDERS

GENERAL

1. Ladders that are defective, have broken or split parts or are otherwise defective shall not be used.
2. All damaged or defective ladders shall be removed from service and tagged OUT OF SERVICE until repaired.
3. All damaged or defective ladders which cannot be properly repaired shall be destroyed.
4. Ladders, when in use, will be secured at top, bottom, or both to prevent displacement.
5. Ladders will extend at least 36 inches above the top landing or grab rails will be installed where 36 inches protrusion cannot be maintained.
6. All ladders shall be class II or better.
7. Ladders shall be placed on substantial footing and be positioned at the proper pitch.
8. Portable metal ladders shall not be used.
9. Ladders shall be inspected daily by a supervisor and those found defective shall be removed from service. (See two (2) above).
10. All ladders must be safely and properly stored when not in use.
11. All employees should be instructed in the safe use of ladders.

CONTRACTOR OWNED SCAFFOLDING

GENERAL

1. In view of the many types and variations of scaffolding in use in the construction industry today, a complete guide for each type of scaffolding will not be presented here.
2. In all cases, the applicable ANSI standards, OSHA, and/or local regulatory rules shall apply.

SCAFFOLD ERECTION

1. All scaffolding shall be erected, dismantled or moved only under the direct instruction or observation of a competent supervisor.
2. All scaffolding (except needle beam and float scaffolds) shall be equipped with standard railings and toe boards.
3. Any scaffold part or accessory that is damaged or weakened from any cause shall be immediately repaired or replaced.
4. All planking must be secured to prevent movement or displacement.
5. All planking shall be lapped by a minimum of twelve (12) inches.
6. Shore or lean-to scaffolds are prohibited.
7. Overhead protection for persons working from scaffolding shall be provided when overhead exposures are presented.
8. Safe access (ladders or other means) shall be provided.
9. Slippery conditions on scaffolding or scaffold access way shall be eliminated as soon as possible.

NON-IONIZING RADIATION
(LASER)

OPERATOR QUALIFICATION

1. Only trained and qualified persons shall set up, adjust and operate laser equipment.
2. Proof of operator qualification must be in possession of the laser operator at all times.
3. Operator proof of qualification must be reviewed with the contractor prior to laser set up.

POSTING REQUIREMENTS AND LABELS

1. Standard laser warning placard must be posted to warn workers of laser hazards at area affected.
2. Laser equipment must have a label attached indicating maximum output.

SET-UP AND OPERATION RULES

1. All manufacturer warnings and instructions for set up, adjustment and use must be adhered to.
2. Laser beams shall not be directed at employees.
3. Beam or shutter caps must be used or the laser turned off when laser use is completed and at any time the laser is to be left unattended.
4. Whenever possible, laser beams shall be set up to such level so as to be above the head level of workers.
5. When raining or snowing or when fog or dust exists in the air, laser operation shall be suspended.

IONIZING RADIATION

X-RAYS

GENERAL

The Sunflower Electric Job Coordinator and the Radiation Safety Officer shall be notified of the intended use of x-ray equipment and a pre-use hazard survey of exposed areas must be performed by the contractor and the Job Coordinator.

OPERATOR QUALIFICATION

1. Only trained and qualified persons shall set up, adjust and operate x-ray equipment.
2. Proof of operator qualification must be in possession of the x-ray equipment operator at all times.

POSTING REQUIREMENTS

1. Standard x-ray warning placards must not be permitted to enter the posted radiation hazard area.
2. Un-authorized employees shall not be permitted to enter the posted radiation hazard area.

DRUG AND ALCOHOL PROGRAM

Sunflower has developed and implemented a comprehensive Drug and Alcohol Policy (“Sunflower Plan”) for all its officers and employees. The Contractor will be required to either:

- (1) Conform to the principles of the Sunflower Plan by the enforcement of a plan of its own that has received the prior written approval of Sunflower based on its conformance with the principle features of the Sunflower Plan; or
- (2) Subject all of its personnel that will be involved with Sunflower personnel, property or equipment to all the testing requirements of the Sunflower plan at Contractor’s expense. If any Contractor employee tests positive for drugs or alcohol, that employee shall be permanently removed from Sunflower work. No counseling or other employee benefit available to Sunflower employees under the Sunflower Plan shall be available to employees of the Contractor.