



ATTACHMENT H: EMERGENCY RESPONSE PROCEDURES

	SAFETY, TRAINING AND ENVIRONMENTAL	<i>Effective Date:</i> 10/26/23
	Subject: Fire Prevention Plan	Revision: A
		<i>Page:</i> 1 of 3

Fire Prevention Plan

CHANGE RECORD:

DATE	REV #	CHANGE	APPROVER NAME/SIGNATURE
10/26/23	A	Updated Document Control	Phil Petrozzi

	SAFETY, TRAINING AND ENVIRONMENTAL	Effective Date: 10/26/23
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Purpose

The purpose of this Fire Prevention procedure is to identify hazards and seek to eliminate the causes of fire and prevent loss of life and property by fire. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.


Scope

All managers and supervisors are responsible for implementing and maintaining a Fire Prevention process at their company location and for all project site areas. A copy of this Fire Prevention Procedure is available from each manager and supervisor.

Fire Prevention Plan

Fire safety is everyone's responsibility and while policies, plans, and procedures are all necessary and appropriate tools, there is no substitute for common sense and general awareness. All employees should know how to prevent and respond to fires and are responsible for adhering to company policies regarding fire emergencies. The following fire prevention guidelines should be followed in order to properly identify hazards and prevent unnecessary ignitions.

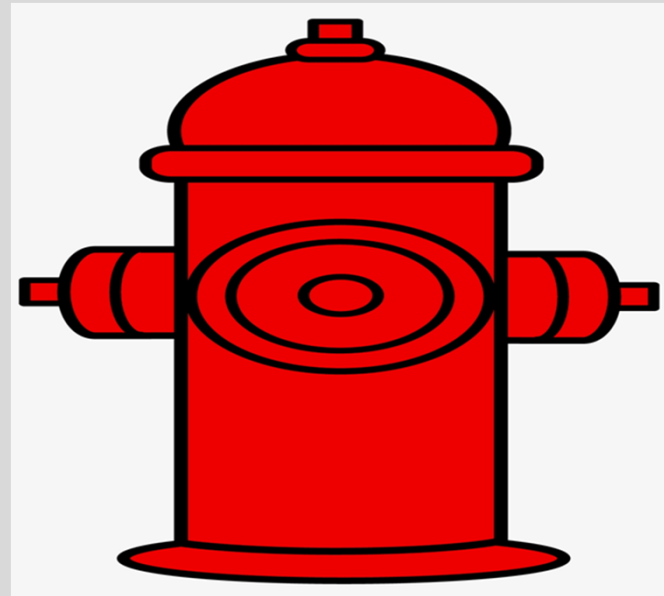
- A. PAR will conduct a Job Site Fire Safety Analysis to identify major fire hazards, coordinate handling and storage procedures for hazardous materials, identify potential ignition sources and their control, and provide for the appropriate fire protection equipment.
- B. PAR will implement procedures to control accumulations of flammable or combustible waste material.
- C. PAR supervision will work with the job site Foreman, along with the Equipment Manager to complete regular maintenance of safeguards installed on heat-producing tools and equipment to prevent accidental ignition of combustible materials.
- D. PAR management team will provide Fire Awareness training to all on-site employees.

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- E. Field leadership will implement, discuss and document that emergency plans are in place, discussed, and documented in advance of work being performed.
- F. Trucks mobilized for projects are required to be equipped with the following fire suppression items, when deemed necessary by the Fire Safety Coordinator:
 - 1. Fire Extinguisher
 - 2. Shovel
 - 3. Axe
 - 4. 5 Gallon Water Can
- G. When equipment with internal combustible engines is parked over or near light vegetation fire blankets will be placed under any heat source to prevent ignition of fuels.
- H. PAR supervision will work with Customer, as deemed necessary, to discuss, evaluate, consider, and implement, as applicable, additional fire safety considerations.
- I. The regional PAR office will daily monitor appropriate news, weather, and fire related information from the governing authorities in order to assess fire hazards and communicate this information directly to our field supervision. Additionally, field crews will monitor local conditions.
- J. Field crews will discuss potential fire hazards and required mitigation measures during the daily tailboard.
- K. In the event of a fire the following steps will be taken:
 - 1. Notify first responders
 - 2. Notify QISG/Xcel leadership
 - 3. **Notify Xcel Security Operations Center 612-330-69004.**
 - 4. Notify PAR Leadership
 - 5. If the fire is manageable, use tools and equipment to extinguish
 - 6. If fire spreads or becomes unmanageable, move all personnel to safety zone



Fire Prevention & Mitigation





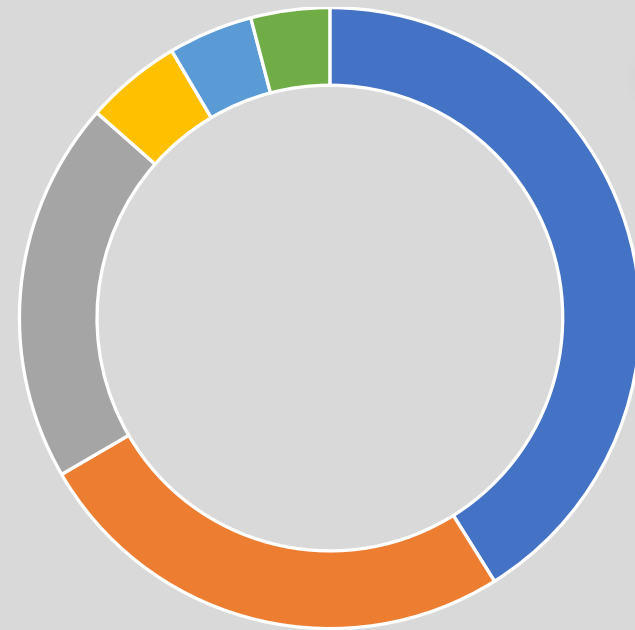
FIRE PREVENTION AND MITIGATION

- The safety plan is the fire safety authority
- Fire prevention and mitigation is element-specific
- Know your work area's fire conditions, prevention, mitigation, and actions plan
- Fire prevention plan:
- Lighting an open flame requires a permit
- Welding requires a permit
- Red flag fire danger ratings



FIRE PREVENTION AND MITIGATION

- From 2019 to 2021, there was a 17% increase in U.S. wildfires. (National Interagency Fire Center)
- This U.S. Fire Administration's graphic highlights the causes of outside fires in 2019.
- In 2019 alone, there were 492,500 fires

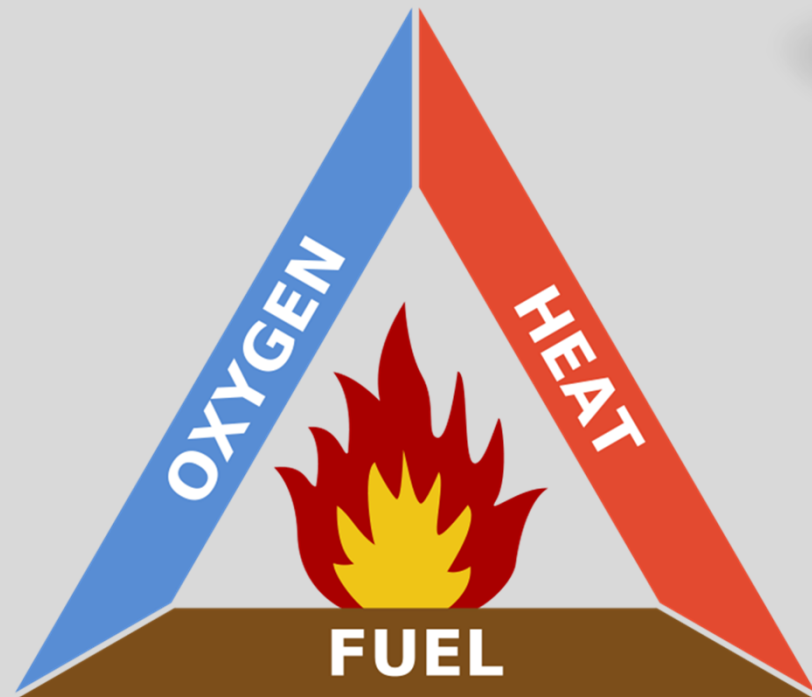


■ Unintentional - 41.1%	■ Undetermined after investigation - 25.5%
■ Intentional - 19.9%	■ Under Investigation - 5%
■ Act of nature - 4.4%	■ Other - 4.1%



FIRE PREVENTION AND MITIGATION

- Three elements must be present at the same time to ignite a fire:
 - Enough **oxygen to sustain combustion**
 - Enough **heat to raise the material to its ignition temperature**
 - Enough **fuel material to keep the fire alive and enable the spread**





FIRE PREVENTION AND MITIGATION

- Oxygen cannot be prevented in the fire triangle but can be diminished.
- Suffocate the fire by throwing dirt or a blanket over the top of it.
- Remove oxygen with a Co2 fire extinguisher.



FIRE PREVENTION AND MITIGATION

- The heating element in the fire triangle can be controlled to help stop and prevent fires.
- Once at the job site:
 - Water your working area down and lay fire-resistant tarps or blankets for vehicles to park on.
- If a fire ignites:
 - Immediately cool the area with water or dirt.





FIRE PREVENTION AND MITIGATION

- Once at the job site:
 - Remove the surrounding area's possible fuel sources (wood, grass).
 - Wet the area down and lay fire-resistant tarps or blankets for vehicles to park on.
 - Wear fire-resistant materials.
- If a fire ignites:
 - Remove the fuel source to help stop the fire from spreading past the fire line.



FIRE PREVENTION AND MITIGATION

Classes of fire

- Class A – ordinary combustibles
- Class B – flammable liquids
- Class C – electrical fires
- Class D – metals fires
- Class K – kitchen fires





FIRE PREVENTION AND MITIGATION: **Class D & K**

- **Class D – Metals**

- These fires are specific to laboratories or in an industry-specific field with the metals listed below:

- Magnesium
- Sodium
- Potassium
- Titanium
- Zirconium

- **Class K – Cooking / Kitchen**

These fires will involve:

Vegetable and animal oils
Non-saturated oils
Fats

FIRE PREVENTION AND MITIGATION: FIRE EXTINGUISHERS



Water Fire Extinguisher

- Only to be used on a **Class A** fire.
- The water eliminates the fire by taking away the heat component.
- Do NOT use a water fire extinguisher on:
 - **Class B** fires
 - **Class C** fires

Co2 Fire Extinguisher

- Only to be used on **Class B** and **Class C** fires.
- Removes the oxygen and heat with cold discharge.
- Must be 3-8 feet from fire.
- Only use in a well-ventilated area.



FIRE PREVENTION AND MITIGATION: MULTIPURPOSE FIRE EXTINGUISHER

- Can be used for Class **A**, **B**, and **C** fires.
- Helps prevent re-ignition.
- Can be commonly found in businesses and on trucks when out on a job site.





FIRE PREVENTION AND MITIGATION: FIRE EXTINGUISHER INSPECTION

Daily inspection

Do not block the extinguisher

1. Flip upside down to aid in mixing the contents.
2. Ensure the extinguisher needle indicator is in the “full” or green range.
3. Ensure there is a pin and a breakaway zip tie. If the tie is broken, it needs to be removed from service.
4. Inspect the hose, nozzle, or horn for any breakage.



FIRE PREVENTION AND MITIGATION: P.A.S.S METHOD

P.A.S.S.

- Pull
- Aim
- Squeeze
- Sweep



FIRE PREVENTION AND MITIGATION:



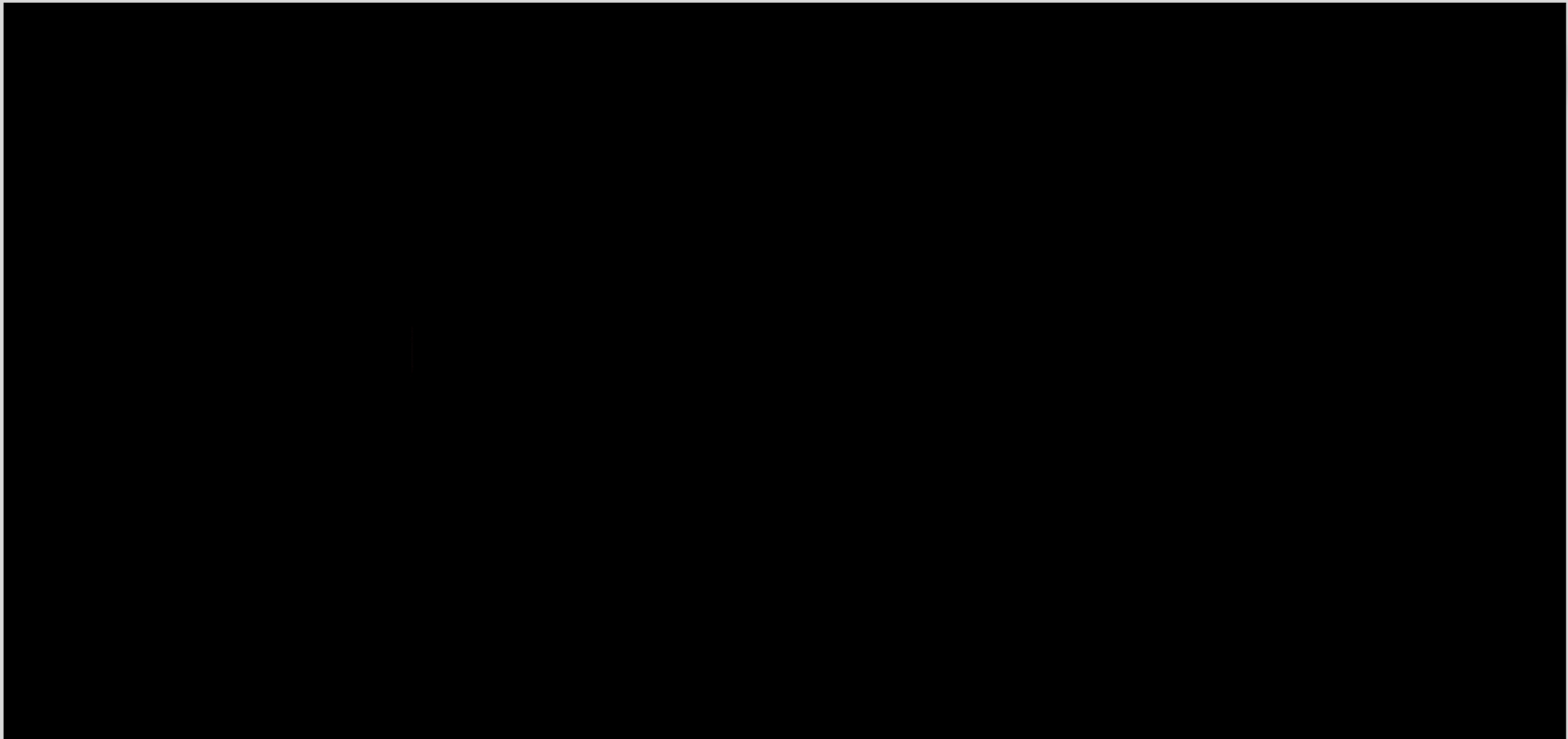
FIRE
PREVENTION
AND
MITIGATION:
FIRE TOOLS
(CONT.)



FIRE PREVENTION AND MITIGATION:



FIRE PREVENTION AND MITIGATION: VEHICLE SAFETY



FIRE PREVENTION AND MITIGATION: VEHICLE SAFETY (CONT.)



- Ignition factors
 - Energy Wheel hazards:
 - Temperature: exhaust pipe heat.
 - Grass can ignite in less than a minute when exposed to 575°F.
 - Steps of prevention to take?



FIRE PREVENTION AND MITIGATION: ENVIRONMENTAL FACTORS



- Topography

- Location of job site
- Steepness of land: elevation and slope
- Aspect (direction of slope face)
- Features (canyons, valleys, rivers, or drainage)
- Energy Wheel hazards:
 - Motion: fire racing upslope
 - Biological: grass, trees, shrubbery
 - Steps of prevention to take?

Fire Weather

- Weather can impact fire behavior
- Temperature, wind, and relative humidity are weather factors that affect the probability of fire ignition and behavior
- Energy Wheel hazard:
 - Temperature: hot days can create a dry environment



FIRE PREVENTION AND MITIGATION: WORK HAZARDS

- Electrical

- Equipment used on a job site presents potential fire hazards
- Energy Wheel hazards:
 - Electrical: sparks ignite a possible fire
 - Temperature: hot equipment
 - Steps of prevention to take?

Hot Work

Energy Wheel hazards:

- Temperature: hot equipment
- Electrical: equipment may release sparks
- Gravity: dropping hot equipment
- Steps of prevention to take?



FIRE PREVENTION AND MITIGATION: EMERGENCY EVACUATION

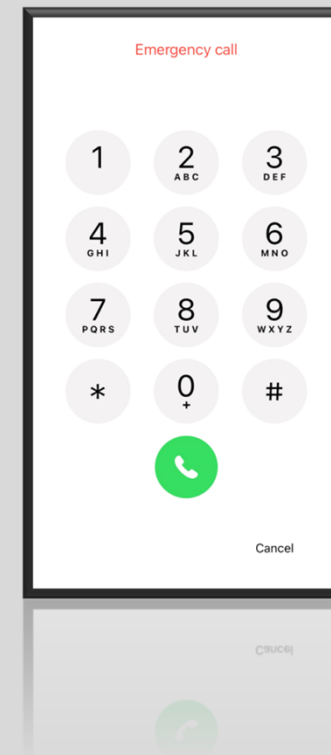
- Establish a safety zone (10 times the vegetation height)
- Park vehicles facing out for a quick exit
- Points to remember:
 - Know what fuel source is burning
 - P.A.S.S. and position yourself with an exit at your back
 - Assist anyone in immediate danger without putting yourself at risk
 - Active fire alarm and call 911





FIRE PREVENTION AND MITIGATION: IF A FIRE OCCURS

- Stay calm
- Notify local fire authorities of the evacuation process and pre-determined safety zone
- Shut down all equipment
- Get into pickup trucks
- Exit the job site in a single file to the pre-determined safety zone
- Once at the safety zone, ensure all crew members are present
- Assess crew members to see if anyone needs medical attention





Health and Safety Plan (HASP)

Colorado's Power Pathway

2023



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Contact Info

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Land Rights Agent	Amber Dedus	720-626-8757	amber.s.dedus@xcelenergy.com

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PAR ELECTRICAL CONTRACTORS, LLC			
	NAME	PHONE	EMAIL
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General Foreman	Blake Moore	217 778-9056	bmoore@parelectric.com
Safety Manager	Kyle Rea	720-708-8914	Krea@parelectric.com
Fleet Manager	Mike Sells	303-901-8016	msells@parelectric.com
Tool Manager	Steve Paeper	303-356-5148	spaeper@parelectric.com
Environmental	Kevin Cahill	346-651-7489	kcahill@quantaservices.com

SUBCONTRACTORS	NAME	PHONE	EMAIL
Sanitation	TBD		
Waste/Trash	TBD		



Project Details

Revision Date:	04/04/2023
Contractor Company:	PAR Electrical Contractors, LLC.
Project Name:	Colorado Power Pathway
Project Address:	<p>PAR Office Location 815 2nd St, Limon, CO, 80828</p> <p>Project Location Canal Crossing Sub Structure 00 to Goose Creek Sub Structure 797DE</p>
Project Duration:	
Workdays & Hours:	Monday – Friday 5/10 Schedule
Project Scope:	<p><u>Conductor:</u> 1272 ACSR</p> <p><u>Shield Wire/OBGW:</u> 0.555OBGW</p> <p><u>Structures:</u> 302 New Weathering Steel Structures</p> <p><u>Foundations:</u> 318 concrete foundations, 54 vibratory caissons.</p>



Purpose

This site-specific Health and Safety Plan (HASP) aims to provide a PAR management approach for identifying, evaluating, analyzing, and controlling workplace hazards and work area emergencies. The intent of this program is to:

- Provide a safe and healthy working environment for PAR employees.
- Provide a pre-planning tool for employees to control workplace and work area emergencies.
- Meet the requirements of CFR 29 1926.35.

Reference: PAR Safety Manual addresses safety, health, and environmental issues in greater detail.

Review and Updates

The HASP is designed to be “site-specific” and shall be reviewed and updated by the PAR Project Team as necessary. An example of an event that warrants a review would be a change in PAR management, a significant change in the scope of the work, and/or when serious safety concerns arise that were not initially addressed in the plan. Updates shall be communicated to all affected crew members.



Emergency Action Plan

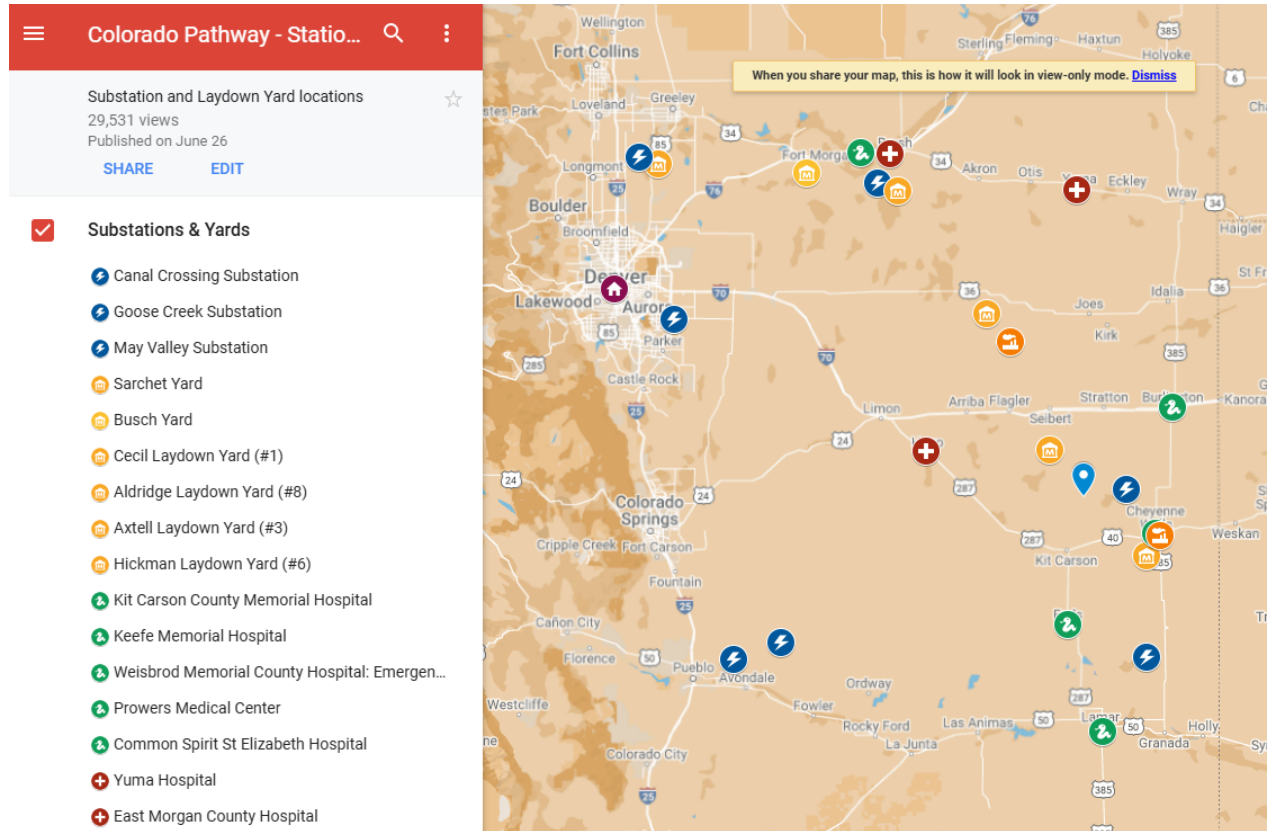
All job sites must have emergency communication and an emergency response plan communicated and understood by all Contractor and Subcontractor employees. The plan shall include, at a minimum:

- Emergency Contacts
- Location and Name of Local Emergency Services
- On-site communication methods (cell phone, radio, satellite phone, etc.)
- Location and directions (including maps) to the nearest medical facility
- Procedure to follow in the event of an emergency

A minimum of two currently trained people in First Aid and CPR will be present for each crew.

Emergency Contacts		
<p>NOTE For Persons Using GPS Units: In some cases, the address that is entered may not take you the desired final destination. Always verify that your unit is taking you the desired location. You may need to drop a pin and save the location into your GPS unit.</p>		
Name	Address	Phone
Hospital / Medical Facility		
Lincoln Health Community Hospital	111 6th St, Hugo 80821	719-473-2578
Parkview Medical Center	400 W 16th St, Pueblo 81003	719-584-4000
Drug and Alcohol Testing		
Lincoln Health Community Hospital	111 6th St, Hugo 80821	719-473-2578
Local Police / Sheriff		
El Paso County Sheriff's Office	27 East Vermijo Avenue, Colorado Springs 80903	719-520-7100
Fire & Rescue Squad		
Big Sandy Fire Protection District	219 Sioux Ave, Simla 80835	719-541-2883
Calhan Fire Protection District	725 4th St, Calhan 80808	719-347-3057

Substation – Laydown Yard – Hospital/Emergency Rooms



[Link to Live Map](#)



Incident/Event Response and Reporting Guidelines

Follow all incident reporting requirements included in the QISG Pathway HASP

If you are involved in, witness, or discover an incident/event:

- Assess the scene and verify that it is safe to provide help.
- Check the scene for any injured person(s) and assess their status.

The actions in the bullet points may happen simultaneously depending on available help (personnel), event assessment, and the status of individuals.

- If the scene cannot be safely entered or secured so that it can be entered, contact the designated emergency contacts, your next in line PAR management/local safety personnel, and **911** for life-threatening Conditions.
- If the scene is safe to enter and the event results in an injury(s), CPR and First Aid should be given. Contact the designated emergency contacts, your next in line PAR management/local safety personnel, and **911** for life-threatening Conditions.

Complete appropriate post-incident forms and if required complete post-accident drug testing. If you have any questions, consult your local Field Safety Coordinator or Safety Manager/Division PAR management.

Vehicle Incident (in a company vehicle)

- When involved in a vehicle incident, remain at the scene. Check yourself for injuries and the vehicle for damage, and if possible, pull to a safe area and **call 911**.
 - Follow other applicable post-incident procedures as needed. If you have questions consult your local Field Safety Coordinator or Safety Manager/Division PAR management.
- If it is safe to do so, check the status of others that may be involved at the scene to give emergency response a better overall picture of the incident.
- Take photographs of the vehicles, scene, and information given to you by others, like their insurance, registration, and license, if you are able to exchange information. If you are unable to exchange information because emergency services are collecting it or because of injuries sustained at the scene, request a case number from the officer(s) on the scene or from the local police station.
- If the owner is not present, attempt to locate them or leave contact info.
- Notify your supervisor and safety as soon as possible to initiate an incident response.
- Fill out the "Driver Report of Vehicle Accident" form.



Note: Persons involved in, or suspected to have been involved in, an incident resulting in injuries to the head, spine, or other injuries that if the individual were moved could cause life-threatening damage, should not be moved. This may include, but not be limited to, persons involved in a fall to a lower level. First Aid and CPR should be given as needed and examined and transported by Emergency Response Personnel to a medical facility.

Media Relations

If the news media arrives on the scene of an incident, contact your supervisor immediately.

Do not answer questions or give statements, on or off the record. Refer all questions/ inquiries to the senior member of the PAR management team on site.

Only the authorized PAR representatives shall answer any questions or make any statements.

Forward all inquiries to:
Vice President of Safety and Environmental Compliance
PAR Electrical Contractors
4770 N. Belleview Ave Suite 300
Kansas City, MO 64116-2188

Other Incident Scenarios

Several unplanned emergency events have been identified and guidance has been listed to help provide safe direction on identifying, communicating, executing, and following up on unplanned events. Depending on the situation PAR management will determine if this Incident Response Guidance needs to be initiated

Discovery of Unknown Utilities

If unknown utilities are discovered, immediately cease all operations, and notify PAR management. This includes but is not limited to foundations, underground pipelines or storage tanks, conduits, or other unidentified structures.

Discovery of Suspect Materials

If a suspect material is discovered, immediately cease all operations, and notify PAR management. Suspicious materials include but are not limited to, free petroleum products in soil, unmarked drums or waste containers, underground storage tanks, unexploded ordinance, or other suspicious materials. Do not disturb the suspect materials. Keep clear of the area. PAR management will give directions and contact the proper authorities.

Incidents Involving or Affecting Multiple Persons

As soon as possible after an emergency, the foreman (or designee) should gather the crew at the muster point and take a roll call. The individual taking roll needs to visually confirm the person(s) being



accounted for. The day's Tailboard (or other employee tracking mechanism) should be used. If multiple contractors are on site each crew should conduct a separate roll call and report their findings to PAR management. If an employee is unaccounted for, PAR management must notify emergency services. Never re-enter an emergency area to find a missing employee. No one, including non-essential employees may be released until PAR management gives an "all-clear."

Remote Locations

Some job sites may be in remote locations lacking a formal address, not visible from the road, or difficult to reach by vehicle. If these characteristics apply, during the daily tailboard the Foreman will assign emergency duties to competent employees and communication methods will be established. In the event of an emergency, an employee shall be present at the access point near a known address to place an obvious marker, such as a cone or flag, and have knowledge of how to reach the work site promptly to assist emergency services.

Bloodborne Pathogens are microorganisms carried by human blood and other bodily fluids that can cause disease. These pathogens include but are not limited to HIV/AIDS, Hepatitis B & C, malaria, and syphilis. Any materials such as bandages, clothing, gloves, gowns, or tools that have come into contact with blood or other bodily fluids are considered infectious.

- All blood or other potentially infectious materials shall be considered infectious regardless of the perceived status of an individual
- In areas where blood or bodily fluids are present, such as the site of an injury or where the injured report, there is to be no eating, drinking, application of cosmetics or lip balm, smoking, or handling of contact lenses.
- Employees coming into contact with infectious fluids shall wear appropriate PPE and dispose of infectious waste/materials in a regulated and leak-proof container for handling, storage, transport, and disposal.
- All procedures for handling the injured or infectious materials are to be conducted to minimize splashing, spraying, splattering, or generation of droplets of infectious body fluids.
- Contaminated hard surfaces or equipment shall be disinfected with an appropriate germicide.
- Employees having come in contact with infectious materials must wash hands or other body parts following exposure to reduce the risk of infection and transmission. Any infected clothing should also be removed and properly cared for. Keeping a spare set of clothing for emergencies is always recommended.

Medical Supplies

PAR vehicles shall be equipped with well-stocked first aid kits and a means to summon additional support. PAR foremen vehicles are typically equipped with AEDs. During the Job Briefing/ Tailboard, the foreman shall provide the following:

- Physical Job Location
- Location of medical supplies
- Emergency Contact Numbers (i.e., 911)
- Location of nearest hospital/ medical facility



Hazardous Substance Release

Definition of Hazardous Materials:

The Occupational Safety and Health Administration (OSHA) define a hazardous material as “any substance or chemical which has been determined to be either a health hazard or a physical hazard.”

Hazardous materials include, but are not limited to, chemicals that are:

- Carcinogens
- Irritants
- Corrosives
- Combustible
- Flammable
- Oxidizers

The accidental spill of hazardous material must be handled by qualified personnel only. Employees must contact emergency services immediately to report a spill and follow the below steps:

- Do not put yourself in harms way. Understand the hazardous substance before attempting clean-up.
- Contact Velocity-EHS at 1-888-362-7416 for SDS information.
- Instruct others in the immediate area to vacate the contaminated area immediately. Upon leaving the contaminated site, close doors and, if possible, prevent entry into the area.
- Inform emergency services of the location of the spill and, if possible, the chemical and amount spilled.
- If possible, remove ignition sources and unplug electrical equipment in the immediate area. Do so only if you are not in danger.
- If employee(s) have been exposed to a hazardous material, they should be instructed to remove contaminated clothing immediately and directed to the nearest safety shower/eye wash station. The affected area should be rinsed for a minimum of 15 minutes.
- If employee(s) are injured, move the victim from the immediate area if this can be done without further injury to you or the victim.
- Await direction from emergency services.
- Do not enter the contaminated area until emergency services have given the all-clear.

Release of Liquid Waste

In the event of a liquid waste release, cease all operations notify PAR management as soon as possible, and make every attempt to safety control, isolate, and limit exposure to released material(s) before evacuating the affected area. If attempts to control, isolate, and/or limit the release cannot be achieved safely, keep clear of the area. PAR management will give further direction as needed.



Spill or Release of Fuel

Spill kits shall be available as needed before starting work. A piece of equipment must always be supervised during fueling. In addition, fuel nozzles shall be equipped with automatic shut-off valves. Drip pans or other devices shall be used during maintenance operations. If a spill or release occurs, isolate the source as soon as possible. Once the source of the release has been isolated, an attempt should be made to contain the spill. If this is not possible, keep clear of the area. PAR management will give further direction as needed.

When a Large Chemical Spill has occurred:

- Immediately notify Supervision.
- Contain the spill with available equipment (e.g., pads, booms, absorbent powder, etc.)
- Secure the area and alert other site personnel.
- Do not attempt to clean the spill unless trained to do so.
- Attend to injured personnel and call the medical emergency number, if required.
- Call a local spill cleanup company or the Fire Department (if the arrangement has been made) to perform a significant chemical (e.g., mercury) spill cleanup.
- Evacuate building as necessary

When a Small Chemical Spill has occurred:

- Notify Supervision.
- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering.
- Deal with the spill in accordance with the instructions described in the SDS.
- Small spills must be handled in a safe manner, while wearing the proper PPE.
- Review the general spill cleanup procedures.

Spill Response Quick Guide

<u>CONTROL</u>	<u>NOTIFY</u>	<u>CLEAN-UP</u>
Initiate immediate actions: <ul style="list-style-type: none"> • Follow proper safety procedures • Stop leak, shut off equipment, close valves. • Remove all non-essential personnel. • Use a container or absorbent pad to catch leak or spill-prevent contact with soil. Use speedy dry, sorbent socks,	CALL Safety Coordinator Provide the following <ul style="list-style-type: none"> • Location or structure# • Material(s) involved • Quantity spilled and maximum likely release • Time of release/discovery 	<ul style="list-style-type: none"> • Place contaminated soil & absorbents into labeled containers or cover stockpiled soil with plastic sheeting. • Restore the affected area. • Decontaminate tools & equipment used to clean up. • Arrange for proper disposal of any waste materials. If necessary, PAR will employ a



<p>sand, or dirt berm to prevent the spread.</p>		<p>contractor for spill clean-up.</p>
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Environmental Impact Control Matrix

Significant Aspect	Potential Impact	Controls in Place
Equipment Leaks and Spills	Water Pollution Soil Contamination	Equipment is equipped with spill kits Contaminated soil shall be removed and sent out for disposal PAR management and utility will be informed of all large spills
Disposal of Lead Containing Materials, and Wire	Water Pollution Soil Contamination	These materials will be separated and turned in to the nearest utility work center for disposal
Human Waste	Water Pollution Soil Contamination Nuisance	Portable bathroom facilities shall be provided in the show-up for employee use
General (non-hazardous) waste	Landfill/ Waste Disposal Nuisance	All show- up sites are equipped with a dumpster for non-hazardous waste disposal
Work in designated wetlands	Water Pollution Soil Contamination Habitat Degradation	Equipment will be utilized at a minimum Worksite shall be cleaned upon the completion of work. All tire ruts will be raked, and area returned to pre-work state Applicable permits will be obtained
Impact on Protected Wildlife	Habitat Degradation	Crews will participate in training on local protected wildlife Environmental team will identify areas containing protected wildlife and demarcate them to alert crews working in these areas



		If a protected animal is found on the worksite, work will cease until it is safe to continue
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Hazard Communication

Precautionary measures can be taken to mitigate the exposure to hazards involving hazardous substances. Employees should perform these measures and report any unsafe situations to their Supervisor or Safety Coordinator.

PAR is committed to maintaining a clean and healthy environment. PAR integrates environmental values into it's the decision-making process, by considering the environmental impacts of activities and finding reasonable alternatives to those actions. All employees shall be given awareness training on environmental policies, and in containment/ site cleanup. Employees have the right to understand the chemicals and the measure it takes to safely work with them. Always know and understand what you are working with before you work with it.

- Leaks and spills shall be contained/ cleaned immediately upon discovery. In the event the material cannot be cleaned by the employees on-site. An approved environmental cleanup contractor shall be brought in. A containment area shall be established to protect the public and prevent the further spread of the contamination.
- All PAR vehicles shall be equipped with a well-stocked spill containment/ site cleanup kit.
- All spills and leaks shall be reported to the on-site supervisor. In the event it is not possible to contain or effectively clean the exposed area the General Foreman and Safety Coordinator shall be contacted. The Safety Coordinator will make the appropriate arrangements to clean the site and inform the appropriate members of PAR management and the local utility.
- When it is required for work to be completed in a designated wetland, care shall be taken to limit the impact of the work being performed on the site. Upon the completion of work, care shall be taken the return the site to its original state.
- If a spill occurs, immediate steps will be taken to barricade the spill from affecting running streams or wetlands.
- PAR recognizes that a primary part of its environment strategy is sustainable waste PAR management and as such recognizes its responsibility to recycle materials wherever possible.
- PAR works to minimize waste, especially hazardous waste, and whenever possible recycle materials.
- PAR will dispose of waste though safe and responsible methods.



Safety Data Sheet (SDS) Compliance

PAR has an SDS program through VELOCITY-EHS. To access an SDS scan the QR below and locate the product name. Click the pdf icon located next to the product name to open the SDS for review. Additionally, a call can be placed to the number below. The following information will be required to have available to give to the Velocity EHS representative:

Employer Name, Product Name, Product Manufacturer ID, Product ID



Attached are a few OSHA Reference cards to help with understanding chemical labeling and SDS sheets.

OSHA QUICK CARD™

Hazard Communication Standard Pictogram

The Hazard Communication Standard (HCS) requires pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

HCS Pictograms and Hazards

Health Hazard	Flame	Exclamation Mark
 <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	 <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	 <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
 <ul style="list-style-type: none"> • Gases Under Pressure 	 <ul style="list-style-type: none"> • Skin Corrosion/Burns • Eye Damage • Corrosive to Metals 	 <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
 <ul style="list-style-type: none"> • Oxidizers 	 <ul style="list-style-type: none"> • Aquatic Toxicity 	 <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

For more information:

Occupational Safety and Health Administration
www.osha.gov (800) 321-OSHA (6742)

9507 110-196c 1/10/10

OSHA QUICK CARD™

Hazard Communication Standard Labels

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). All labels are required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown on the right. Supplemental information can also be provided on the label as needed.

For more information:

Occupational Safety and Health Administration
www.osha.gov (800) 321-OSHA (6742)

SAMPLE LABEL

<p>Keep container tightly closed. Store in cool, well-ventilated area. This is not for use as a fire extinguisher. Do not use for anything other than its intended purpose. Do not use for anything other than its intended purpose. Do not use for anything other than its intended purpose.</p> <p>Precautionary Statements</p> <p>Wash thoroughly after handling. Do not get into eyes. Avoid breathing dusts and vapors. Do not eat, drink, or smoke when using this product. Do not get into eyes. Avoid breathing dusts and vapors. Do not use for anything other than its intended purpose.</p> <p>Supplemental Information</p> <p>Net weight: _____ Liters: _____ Gross weight: _____ Net weight: _____ Expiration Date: _____</p>	<p>Product Identifier</p> <p>Product Name: _____ Supplier Identification: _____</p> <p>Hazard Pictograms</p> <p> </p> <p>Signal Word</p> <p style="text-align: center; font-weight: bold; font-size: large;">Danger</p> <p>Hazard Statements</p> <p>H202: Harmful to the environment. H228: Highly flammable liquid and vapor. H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage.</p>
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OSHA 3492-01R 2016

OSHA QUICK CARD™

Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. The HCS requires new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

(Continued on other side)

For more information:



OSHA Occupational Safety and Health Administration
www.osha.gov (800) 321-OSHA (6742)

OSHA 3403-01R 2016

OSHA QUICK CARD™

Hazard Communication Safety Data Sheets

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); ACGIH Threshold Limit Values (TLVs); and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the SDS where available as well as appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.

See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.

For more information:



OSHA Occupational Safety and Health Administration
www.osha.gov (800) 321-OSHA (6742)



Discovery of Weapons/Illicit Drugs or Violence: In the event of the discovery of weapons or illicit drugs on the work site, the PAR management must be notified immediately. Do not disturb the weapon or drugs and do not alarm other employees by indicating their presence. It is the responsibility of the PAR management to notify the proper authorities, be it the local or state police. If an employee becomes violent or makes threats of violence, notify PAR management immediately, who must then contact local authorities. PAR management will determine if a location change needs to happen and account for the crew.

Bomb Threat/Violent Incidents: In the event there is a bomb threat, or a violent situation PAR management needs to be notified as soon as possible so that 911 or other proper authorities can be contacted to handle the situation. PAR management will determine if a location change needs to happen and account for the crew.

How to Respond When an Active Shooter is in Your Vicinity

Quickly determine the most reasonable way to protect your own life. Remember that Xcel Energy and clients are likely to follow the lead of employees and managers during an active shooter situation.



<https://www.youtube.com/watch?v=5VcSwejU2D0&t=2s>

Video on Run, Hide, Fight

1. RUN

If there is an accessible escape path, attempt to evacuate the premises. Be sure to:

- Have an escape route and plan in mind
- Evacuate regardless of whether others agree to follow
- Leave your belongings behind
- Help others escape, if possible
- Prevent individuals from entering an area where the active shooter may be
- Keep your hands visible
- Follow the instructions of any police officers
- Do not attempt to move wounded people
- Call 911 when you are safe

2. HIDE

If evacuation is not possible, find a place to hide where the active shooter is less likely to find you.

Your hiding place should:

- Be out of the active shooter's view
- Provide protection if shots are fired in your direction (i.e., an office with a closed and locked door)
- Not trap you or restrict your options for movement



To prevent an active shooter from entering your hiding place:

- Lock the door
- Blockade the door with heavy furniture

If the active shooter is nearby:

- Lock the door
- Silence your cell phone and/or pager
- Turn off any source of noise (i.e., radios, televisions)
- Hide behind large items (i.e., cabinets, desks)
- Remain quiet

If evacuation and hiding out are not possible:

- Remain calm
- Dial 911, if possible, to alert police to the active shooter's location
- If you cannot speak, leave the line open and allow the dispatcher to listen

3. FIGHT

As a last resort, and only when your life is in imminent danger, attempt to disrupt and/or incapacitate the active shooter by:

- Acting as aggressively as possible against him/her
- Throwing items and improvising weapons
- Yelling
- Committing to your actions



https://www.dhs.gov/xlibrary/assets/active_shooter_booklet.pdf



Fire Prevention Plan

Purpose

The purpose of this Fire Prevention procedure is to identify hazards and seek to eliminate the causes of fire and prevent loss of life and property by fire. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.

Scope

All managers and supervisors are responsible for implementing and maintaining a Fire Prevention process at their company location and for all project site areas. A copy of this Fire Prevention Procedure is available from each manager and supervisor.

Fire Prevention Plan

Fire safety is everyone's responsibility and while policies, plans, and procedures are all necessary and appropriate tools, there is no substitute for common sense and general awareness. All employees should know how to prevent and respond to fires and are responsible for adhering to company policies regarding fire emergencies. The following fire prevention guidelines should be followed in order to properly identify hazards and prevent unnecessary ignitions.

- PAR will conduct a Job Site Fire Safety Analysis to identify major fire hazards, coordinate handling and storage procedures for hazardous materials, identify potential ignition sources and their control, and provide for the appropriate fire protection equipment.
- PAR will implement procedures to control accumulations of flammable or combustible waste material.
- PAR supervision will work with the job site Foreman, along with the Equipment Manager to complete regular maintenance of safeguards installed on heat-producing tools and equipment to prevent accidental ignition of combustible materials.
- PAR management team will provide Fire Awareness training to all on-site employees.
- Field leadership will implement, discuss and document that emergency plans are in place, discussed, and documented in advance of work being performed.
- Trucks mobilized for projects are required to be equipped with the following fire suppression items, when deemed necessary by the Fire Safety Coordinator:
 - Fire Extinguisher
 - Shovel
 - Axe
 - 5 Gallon Water Can
- When equipment with internal combustible engines is parked over or near light vegetation fire blankets will be placed under any heat source to prevent ignition of fuels.
- PAR supervision will work with Xcel Energy, as deemed necessary, to discuss, evaluate, consider, and implement, as applicable, additional fire safety considerations.
- The regional PAR office will daily monitor appropriate news, weather, and fire related information from the governing authorities in order to assess fire hazards and communicate this information directly to our field supervision. Additionally, field crews will monitor local conditions.



- Field crews will discuss potential fire hazards and required mitigation measures during the daily tailboard.
- In the event of a fire the following steps will be taken:
 1. Notify first responders
 2. Notify Xcel leadership
 3. **Notify Xcel Security Operations Center 612-330-6900**
 4. If the fire is manageable, use tools and equipment to extinguish
 5. If fire spreads or becomes unmanageable, move all personnel to safety zone

General Workplace Hazard Controls

Actions designed to prevent accidents:

- All flammable materials will be stored in a designated area or flammable storage cabinet.
- Waste materials are to be discarded in the proper locations.
- Turn off any equipment that does not need to be on.
- Walkways are to be kept clear at all times.
- Fire extinguishers should be kept clear at all times for easy access.
- All employees should be familiar with the evacuation routes and should proceed to the exits when instructed in an emergency.
- Each supervisor shall be responsible for informing his or her shift employees on the safe handling of hazardous materials.
- Good housekeeping is the responsibility of all employees.

Environmental/Biological Hazards

Biological Hazards

Poisonous Plants

Poison ivy, poison oak, poison sumac, stinging nettle and poison hemlock are among the plants that can cause skin irritation lasting a week or more. Irritation can be caused by brushing against a plant or from secondary contact with contaminated clothing.

Several plants may look different throughout the seasons, so precaution should be taken to avoid potential exposure and protective equipment and clothing may be needed.

- Eye and face protection
- Long-sleeved shirts, pants, hats and gloves

Use caution when disposing of woody material left over from clearing trees or brush by burning the debris. Toxic plant might be on the tree trunks or mixed into the brushy material, burning poisonous plants may cause serious respiratory problems in some individuals. Poison ivy can remain on a surface for weeks and possibly months.

If exposed to a poisonous plant



- Immediately rinse his or her skin with rubbing alcohol, specific plant washes or degreasing soap (such as dishwashing soap) – and use lots of water
- Use calamine lotion to reduce the itching
- Use antihistamines to reduce inflammation and swelling, but is NOT to be used while operating machinery

Dog

Ideally, all dogs should be properly restrained by a leash or a fence but, in reality, this is not the case. Being aware and alert to what dogs are around can help prevent an attack.

If attacked:

- Never run away from a dog
- Be more aggressive than the dog
- Stay forward, stay tall and stay big while shouting “NO”
- Use an aggressive frontal posture
- If dog keeps coming, turn to the side to protect your vital organ area and to get a better stance for the impact
- Use an object to steer yourself to a safe place.
- Keep your back against something. If you back up against a house or a fence, you should then be able to move sideways toward an exit.
- Find anything to put between you and the dog. Any barrier is a good barrier.
- Never reach for the attacking dog’s eyes, head or nose
- Grab a paw to get a dog to back off
- If in a pack attack, pick one dog and hurt it.
- Try to stay on your feet and keep your face and neck covered.

Things to Remember

- Dogs are more likely to attack if the owner is present.
- Before entering any area, make noise – such as jingling your keys or yelling to let the dog know you are there and to give you a chance to see the types and number of dogs present
- Issue letters or warning cards to homes where a dog could pose a threat
- Do not approach a strange dog, even if it is chained or restrained behind a fence
- Always carry pepper spray
- Do not run past a dog – the animal’s natural instinct is to chase its prey.
- When threatened by a dog, do not make eye contact
- Remain motionless until the dog is gone
- Slowly back away until you are out of danger

Venomous Spiders

Encountering a spider is not an ideal situation for most people. And for employees spiders can present an occupational hazard. With the United States being home to venomous arachnids such as the black widow, brown recluse and hobo spiders, and the danger is real.

Symptoms of a spider bite

- Pain
- Itching



- Muscle cramps
- Sweating
- Difficulty breathing
- Vomiting
- Fever
- High blood pressure

If you are bitten by a spider, take the following steps:

- Do not panic
- If the spider is still nearby, do your best to identify it
- Wash the bite area with soap and water
- Use an ice pack or cool or damp cloth to help reduce swelling
- Keep the bite area elevated
- Never try to remove venom
- Contact your supervisor
- Seek professional medical help

To help prevent spider bites:

- Give your work clothes, shoes and equipment a thorough shake before use
- Wear long-sleeved shirts and long pants
- Wear gloves and boots if spiders are in the area
- Remove piles of debris from outdoor jobsites, and trim tall grasses
- Stay up to date with your tetanus boost0065rs, because spider bites can become infected with tetanus spores

Venomous Snakes

- Call for emergency services (911)
- Keep the victim still and calm to slow down the spread of venom
- Lay or sit the person down with the bite at or below the level of the heart
- Administer first aid if the victim cannot be taken to the emergency department immediately
- If the bite is on a limb, wrap the bite with a loose-fitting clean, dry dressing and immobilize the limb, if possible
- Mark the advancing edge of the swelling with a marker at 15- to 20-minute intervals to help the treating physician with determining the bite severity

NOTE: If possible, take pictures of snake, so that medical professionals can better identify the species of the snake and the type of anti-venom to administer the injured employee.

Insects and Scorpions

Bees, wasps and other stinging insects are found throughout the United States. These insects will sting if they are disturbed as they go about their activities, especially while foraging for food.

- When in an area where there are bees or wasps or hornets, employees should watch for a pattern of movement to identify the location of a colony
- When eating outside, use caps for bottles and cover all food items with a lid to prevent attracting insects

If stung, employees may experience:

- Dangerous drop in blood pressure



- Fluid buildup in the lungs
- Shock
- Suffocation, if stung on the neck or mouth

First Aid

- Clean area with soap and water
- Removed stinger with gauze or by using a fingernail
- Apply ice to reduce swelling,

NOTE: Employees who are allergic should carry an epinephrine injection, at all times. Employees who think they may be allergic should be tested.

Vector-Borne Diseases

- Mosquito-Borne Diseases
- Tick-Borne Diseases

Ticks present a concern for employee because they can cause Lyme disease when they attach themselves to a host and feed for six to 13 days. They may be found in tall grass areas, shrubs, brushy areas, river bottoms and woodlands. They are most active in the spring, summer and fall, but can be active for the entire year in warmer parts of the United States.

Prevention

- Tie or tape pant legs tight around the ankle
- Wear light-colored clothing and tuck in shirts
- Wash clothing regularly
- Use repellants containing permethrin
 - DO NOT apply directly to the skin
- Use repellents containing DEET to protect exposed skin
- Read and follow all instructions on the repellant packaging
- Check clothing regularly

If bitten:

- Use tweezers to remove attached ticks
- Use a slow and steady motion & pull away from your body
- Do Not use a twist and jerk motion
- Remove any remains from skin
- Keep tick for a few weeks in a container labeled with the date and location of the bite.
- This may be helpful to medical professionals, if needed.

NOTE: Personnel who develop a rash or fever within several weeks of removing a tick need to visit a doctor.

- Lyme Disease



<https://www.cdc.gov/niosh/topics/outdoor/>

Contact PAR management or PAR Safety for more info
Reference PAR Safety Manual – First Aid and Emergency

Hot and Cold

Work Description	Potential Accidents or Hazards	Preventative Measures
Hot Weather Safety	Dehydration	Drink Some Water Before Beginning Work In Hot Weather. Do Not Wait To Feel Thirsty While Working In Hot Weather. Consume 8 oz Of Water Every 20 Min's. Limit Intake Of Sodium, Sugar and Caffeine. Low Sugar Commercial Sport Drinks Are Ok. Do Not Consume More Than One Quart Per Hour
	Heat Cramps	Sit Or Lie In Cool Shaded Area Drink Cool Water, Stretch Effected Muscles.
	Heat Stroke	Symptoms: Skin Feels Hot To The Touch Behavioral Confusion - Disorientation, Irrational, Agitated Or Aggressive Behavior. Seizure. Seek Emergency Help Immediately
	Heat Syncope	Symptoms: Dizziness or Fainting. Lie In A Cool Place. If Unaccompanied By Nausea, Drink Water.
	Heat Edema	Symptoms: Swollen Ankles or Feet. Elevate Legs - Support Stockings Helpful.
	Prickly Heat (Heat Rash)	Symptoms: Itchy Rash On Sweaty Skin Dry And Cool The Skin.
	General	Dress In Light Colors Consume One Cup Of Water Every 20 min's. Wear Porous Clothing That Will Breath Easily. Avoid Tight Fitting Clothing. Spend Lunch & Breaks In The Shade. Wipe Cool Water On Exposed Skin. Victims Can Be Sprayed With Cool Water And Fanned. Apply Cooling Methods While Waiting For Emergency Treatment - Apply Ice Packs To Neck and Arm Pits. Do Not Use Rubbing Alcohol To Cool Skin, Do Not Use Aspirin On Victims
Cold Weather Safety	Heating Equipment Hazards	Keep Combustible Materials Away From Furnaces and Heaters. Keep Portable Heaters 3' From Combustible Surfaces. Keep Flammable Liquids In Tightly Capped Containers and Away From Heating Devices. Styrofoam Packaging Emits Noxious or Deadly Gases When Exposed To Heat. Equipment That Burns Gases or Liquids Produce



		Carbon Monoxide - Use Only In Well Ventilated Areas. Use Only Equipment That Turns Off Automatically If Tipped or When Desired Temperatures Are Reached. Check Heaters For Frayed Cords or Broken Elements. Keep Properly Maintained Fire Extinguishers Near All Heating Devices That Operate With Open Flame.
	Slippery Surfaces, Falls	Keep Walkways, Steps, Porches and Landings Free From Ice and Snow. Keep Supply Of Salt and Sand On Hand. Watch For Places In The Yard Where Low Spots Have Allowed Rain or Melt To Accumulate - These Can Be Hidden By New Snow and Should Be Salted, Sanded or Removed. Watch Areas Where Overhead Ice Can Accumulate and Fall During Wind or Melting. Such Areas Should Be Taped Off and Avoided Until Ice Melts or Has Been Removed.
	Exposure To Cold	Hazards Increase Proportionately With Wind Chill Below Zero Degrees Fahrenheit. Wear Layers Of Light Clothing Rather Than A Single Heavy Garment. Use Helmet Liners Inside Of Hard Hats To Reduce Heat Loss. Wear Warm Leg Coverings and Heavy Socks Or Multiple Lighter Socks. Wear Water Proof Boots With Good Traction Tread Patterns - Avoid Smooth Leather Soles. Cover Face In Extreme Cold To Avoid Frost Bite. Cover Mouth To Protect Lungs From Inhaling Extremely Cold Air. Wear Safety Glasses With Tinted Lenses To Protect Eyes From Winter Glare.
	Colds & Influenza	To Avoid A Cold or Flu: Keep Resistance High Through Good Nutrition. Keep Resistance High By Getting Plenty of Sleep. Keep Resistance High By Getting Good Exercise. Keep Heat Low and Humidity High At Home. Avoid Contact With Those Who Are ill With Colds. Get Flu Shots Early In The Season. Average Cold Flu Season Lasts From Mid-November Until Mid-April. To Treat A Cold or Flu: Use Mild Pain Reliever For Aches, Pains and To Reduce Fever. Avoid Unnecessary Activity. Get As Much Bed Rest As Possible Consume Extra Fluids - Fruit Juices Are Best.
	Hypothermia (Drop in body temperature)	Symptoms: Forgetfulness Drowsiness Slurred speech Change in appearance - (puffy face) Weak pulse Slowed heartbeat Very slow shallow breathing Coma or deathlike appearance in extreme cases. Call for emergency help if body temperature is below 95 degrees Fahrenheit. Wrap patient in a warm blanket. Apply hot water bottle or heat pad to victim's abdomen. Give small quantities of warm food or drink if alert. Do not give alcoholic beverages. Do not give hot shower or bath - shock could result. Condition should be treated in a hospital.



Severe Weather

A Designated person(s) will be identified by PAR management, to monitor weather via the radio, internet, or television. If work needs to be suspended, all equipment should be secured if it is safe to do so. Prior to anyone leaving the jobsite roll call should be taken to ensure everyone is accounted for. PAR management will determine if it is necessary to go to the designated rally point, storm shelter or other perceived safe location.

Lightning

Lightning strikes within 50 miles of the job site will be monitored. Lightning within 30 miles of the job site or that which can be seen from the job site will result in cessation of all work. If it is safe to do so, the equipment should be secured and the crewmen should cab up. Work can resume once lightning is not seen for at least 30 minutes. If the condition worsens, PAR management will determine if a location change needs to happen and account for the crew.

- Proper Shelter: Best Shelter Is Large, Fully Enclosed, Substantially Constructed Building. Do Not Use "Corded" Telephone. Stay Away from Electrical Appliances, Lighting & Electrical Outlets. Stay Away from Plumbing. Do Not Watch Lightning from Windows or Doorways. Vehicle With Solid Metal Roof and Sides Is a Good Second Choice. Close Vehicle Windows. Lean Away from Vehicle Doors. Keep Hands in Your Lap. Do Not Touch: Steering Wheel, Ignition, Gear Shift Radio
- Places To Avoid: Avoid Higher Elevations Avoid Wide - Open Areas Trees, Lighting Poles, Vertical Steel Structures. Avoid Activities, I.e., Swimming, Boating Fishing, Golfing, etc. Avoid Open Type Vehicles Avoid Pavilions, Rain Shelters and Bus Stops Avoid Metal Fences and Bleachers.
- Lightning Strike Is Imminent When: Your Hair Stands Up You Feel Your Skin Tingling You Hear a Crackling Sound If You Experience Any Of The Above: Spread Out By Several Body Lengths If You're In A Group. Put Your Feet Together, Squat Down, Tuck Your Head, And Cover Your Ears. Leave the Area Immediately After the Threat Has Passed.
- Lightning First Aid: CPR And Mouth to Mouth Resuscitation 911 For Immediate Medical Attention Move Yourself and Victim from The Area If Storm Is Still Active. LIGHTNING STRIKE VICTIMS ARE NOT ELECTRIFIED.

Tornado

- When a warning is issued by sirens or other means, seek inside shelter. Consider the following:
 - Small interior rooms on the lowest floor and without windows,
 - Hallways on the lowest floor away from doors and windows, and
 - Rooms constructed with reinforced concrete, brick, or block with no windows.
- Stay away from outside walls and windows.
- Use arms to protect head and neck.
- Remain sheltered until the tornado threat is announced to be over.
- A headcount should be taken at the emergency shelter.

Tornado Safety Tips: Vehicles are extremely risky in a tornado event. There is no safe option when caught in a tornado in a car, just slightly less-dangerous ones. If the tornado is visible, far away, and the traffic is light, you may be able to drive out of its path by moving at right angles to the tornado. Seek shelter in a sturdy building, or underground if possible. If you are caught by extreme winds or flying



debris, park the car as quickly and safely as possible -- out of the traffic lanes. Stay in the car with the seat belt on. Put your head down below the windows; cover your head with your hands and a blanket, coat, or other cushion if possible. If you can safely get noticeably lower than the level of the roadway, leave your car and lie in that area, covering your head with your hands. Avoid seeking shelter under bridges, which can create deadly traffic hazards while offering little protection against flying debris.

Earthquake

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Keep away from overhead fixtures, windows, filing cabinets, and electrical power.
- Assist people with disabilities in finding a safe place.
- Evacuate as instructed by the Emergency Coordinator and/or the designated official.
- Attempt to get under a table or desk. **NO ONE SHOULD GO OUTSIDE THE BUILDING** unless a gas leak is detected. After the conclusion of the earthquake, the following procedures should be initiated:
 - All employees should remain calm and help injured employees.
 - Check for injuries and provide first aid as needed.
 - The building should be inspected for structural damage. If major structural damage is determined, order an evacuation.

Notify the proper utility companies or other services as needed.

Flood

If indoors:

- Be ready to evacuate as directed by the Emergency Coordinator and/or the designated official.
- Follow the recommended primary or secondary evacuation routes.
- If outdoors:
 - Climb to high ground and stay there.
 - Avoid walking or driving through flood water.
 - If car stalls, abandon it immediately and climb to a higher ground.

Blizzard

If indoors:

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Stay indoors!
- If there is no heat:
 - Close off unneeded rooms or areas.
 - Stuff towels or rags in cracks under doors.
 - Cover windows at night.
- Eat and drink. Food provides the body with energy and heat. Fluids prevent dehydration.
- Wear layers of loose-fitting, lightweight, warm clothing, if available.

If outdoors:

- Find a dry shelter. Cover all exposed parts of the body.



- If shelter is not available:
 - Prepare a lean-to, wind break, or snow cave for protection from the wind.
 - Build a fire for heat and to attract attention. Place rocks around the fire to absorb and reflect heat.
 - Do not eat snow. It will lower your body temperature. Melt it first.

If stranded in a car or truck:

- Stay in the vehicle!
- Run the motor about ten minutes each hour. Open the windows a little for fresh air to avoid carbon monoxide poisoning. Make sure the exhaust pipe is not blocked.
- Make yourself visible to rescuers.
 - Turn on the dome light at night when running the engine.
 - Tie a colored cloth to your antenna or door.
 - Raise the hood after the snow stops falling.

Exercise to keep blood circulating and to keep warm.

Muster Points

- **Severe weather rally point:** Muster at the work location, account for the team, contact PAR management, if safe travel back to the laydown yard unless directed otherwise.
- **Evacuation rally point:** Muster at the work location account for the team, contact PAR management, if safe travel back to the laydown yard unless directed otherwise.
- **Tornado Shelter:** Muster at the work location account for the team, contact PAR management, if safe travel back to the laydown yard unless directed otherwise.

Onsite PAR management will assess the hazard and dispatch the crew members accordingly.

<p>Reference: PAR – Environmental Compliance Program CDC – Center for Disease Control Homeland security</p>
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Report Unsafe Conditions

If you become aware of any unsafe or hazardous situation in the offices or property in general, it is **YOUR** responsibility to inform a member of PAR management.



Job Briefing(s)

The daily job briefing is the *key* to completing a job safely.

The employee in charge shall discuss the tasks to be performed. The briefing shall be documented and include an explanation of how the tasks shall be performed, hazards expected to be encountered, and steps to be taken to eliminate or control the hazards.

Tasks to be performed:

- Any Critical Steps for the task
- How the crew shall complete the tasks with “Positive Control”: the key steps that must be done correctly to ensure the planned outcome of the task
- Existing worksite conditions or characteristics, including any information provided by the host employer
- Specific roles and responsibilities for each employee for completing the tasks
- Existing and predictable hazards
- Which situations require heightened awareness, e.g., Qualified Observer, Spotter, Confined Space Attendant, etc.
- Hazard/Risk mitigation
- The required protective methods (where applicable) to be used, which include but are not limited to the following:
 - Insulation
 - Isolation
 - Grounding
- Equal Potential Zone
- Required Personal Protective Equipment (PPE)
- Emergency response information

Task specific job briefings shall be held:

- at the start of the work shift,
- at the location of the tasks,
- whenever tasks, key steps or scope of work changes,
- hazards differ from the original briefing,
- as additional personnel arrive at the job site, and
- after extended work pauses (work breaks, weather delay, etc.).

The briefing form shall have a provision for each employee to sign to verify they have participated in the briefing. Each ET&D Partnership company’s PAR management shall establish a review process to ensure that the documented task briefing process is effective



Post-Job Brief

At the end of the workday or prior to work beginning the following day, employees shall convene to debrief. Post-job brief discussions may include successful or unsuccessful work methods, special site conditions to be considered, accomplishments and/or accolades, or goals moving forward. All post-job brief discussions shall be noted on the task briefing form and lessons learned considered for all future work.

BENEFITS:

- Provides essential job safety planning guidelines and lists key elements.
- Incorporates use of a specific hazard identification process in the job planning process that will provide for enhanced controls for risks.
- The process and required documentation encourage inclusion and participation of job team members in the specific task hazard identification and mitigation associated with the overall job.

Reference:

PAR Safety Manual

Electrical Transmission and Distribution Partnership (Job Briefing)

National Electric Safety Code (NESC, ANSI C2 – Part 4)

OSHA Investigation

In the event an OSHA Compliance Officer (CHSO) visits the job site or responds to an incident:

- Ask to see official credentials (Identification)
- Be courteous and business-like. Give no information unless it is asked for specifically
- Inform them that the employer representative is on their way
- Call the General Foreman and Safety Coordinator Immediately
- Conduct a pre-job brief with the CSHO
- Ensure the CSHO is wearing proper PPE for the worksite conditions
- Remember that as an employee you are entitled to certain rights
- Not required to perform work in front of the (You can cab up)
- Not required to answer questions without employer representative
- Insist that inspectors not wander off alone
- Accompany the CHSO as they walk around the job site
- If the CHSO takes a photo, take one as well
- Note all the inspector's observations
- Produce no documents during the walk-through. Insist that the document control procedures be adhered to during the inspection.
- If possible, correct any deficiencies the inspector notes *before* he leaves
- Do not argue with the inspector about whether something is a violation



PPE

Personal Protective Equipment

PAR's standard issued Personal Protective Equipment (PPE) will be **required on this project as follows:**

- **Head Protection** – Hardhat Class E, Class E Fly Helmets, Chin straps to be worn around helicopter operations
- **Safety Glasses** – Any ANSI Z-87 rated Safety Eyewear with Side Shields (PAR standard issue preferred)
- **Hand Protection** – Work Gloves with minimum cut resistance level 3
- **Hearing Protection** – When using impact wrench on steel poles and attachments use of 3M (or equivalent) ear muff style
- **Foot Protection** – Protective footwear (meeting ASTM F2413) is required when working in areas where there is a danger of foot injuries due to falling or rolling objects, sole piercing objects and exposure to electrical hazards. EH rated or dielectric boots are required where special hazards exist.
- **FR (Arc-rated) Clothing, Outer Layer as Minimum** – 8 Calorie, Arc-rated category 2 is required.
- **100% Fall Protection** – Required when working from a position 4 ft. and higher. All climbing gear and harnesses need to be rated at a minimum for ASTM F887 (Arc Rated).
- **High Visibility Clothing** – Required on all projects per Xcel Energy requirement.
- **Insulating Rubber Gloves and Sleeves with protectors** – Cradle to Cradle best practice for any work practices on energized distribution circuits.

As Necessary or Preferred:

- Respiratory protection
- Disposable hand warmers, toe warmers
- Arc Flash Rated balaclavas, Arc Flash rated face shields
- Arc Flash Rated hard hat liners
- Ice cleats
- Hearing protection
- FR rated insect / tick repellants for FR clothing and skin use

Arc Rated/Flame resistant (AR/FR) Clothing

All PAR employees in the field shall wear Arc/Flame Resistant (AR/FR) outer clothing consisting of an AR/FR long sleeved shirt with AR/FR pants or an AR/FR jacket (AR/FR rain gear) with AR/FR pants or AR/FR coveralls. The AR/FR clothing shall be worn in accordance with the manufacturer's recommendations while on all PAR jobsites. This is required of all PAR employees (including support personnel), on all PAR jobsites.



All outer AR/FR clothing shall have, at a minimum, either an ARC Rating of 8 cal/cm² or an HRC (Hazard Risk Category) of 2 unless otherwise indicated by QISG and/or Xcel Energy.

Non-AR/FR clothing is permitted only when **all** the following requirements are met:

- The job site/work location is utilized in connection with a PAR project that is covered by a Site-Specific Health and Safety Plan (SSHSP) that meets the host employer's safety and AR/FR clothing or arc hazard assessment requirements; and
- The area in which the job site/work location is located is specifically identified in the SSHSP as having been assessed for potential exposure to hazards from flames or electric arcs, and as having been designated as exempt from AR/FR clothing requirements following such assessment.
- Completed documents associated with a Non-AR/FR clothing exemption (items #1 and #2 of this section) shall be referred to PAR Corporate Safety for review and approval prior to implementation.

Undergarment clothing made of 100% natural fibers is permitted; example: cotton. Non-AR/FR synthetic fabrics shall not be worn because they melt, drip, or continue to burn after an exposure, example: rayon, polyester, acetate, nylon, etc. AR/FR clothing shall be laundered and cared for as instructed by the manufacturer's directions.

Subcontractors and vendors shall be made aware of the PAR AR/FR Policy and will be required to develop and submit a job or project specific AR/FR Clothing Policy prior to work on any PAR project. All plans submitted shall at a minimum meet the more stringent standards of State or Federal OSHA, PAR, or Xcel Energy AR/FR clothing requirements.

All visitors shall be escorted at all times by a qualified PAR employee. If visitors will not be in an energized area, they are not required to wear AR/FR clothing.

Fall Protection

Personal fall arrest system, work-positioning equipment, or fall restraint system shall be inspected before use each day to determine that the equipment is in safe working condition. Work-positioning equipment that is not in safe working condition may not be used.

Each employee in an elevated locations more than 4 feet above the ground on poles, towers, or similar structures shall use a personal fall arrest system, work-positioning equipment, or fall restraint system, or other suitable fall protection when climbing or changing location unless the employer can demonstrate that climbing or changing location with fall protection is infeasible or creates a greater hazard than climbing or changing location without it.

Prior to operating any aerial lift fall protection harnesses shall be donned and fall restraint or personal fall arrest system shall be secured to an approved attachment point.



Reference: PAR Safety Manual
PAR - Fall Protection Program
PAR - Climbing and Fall Protection Requirements

Prescription Safety Glasses Program

PAR engages the services of ORR Safety to administer its prescription safety glass program. Authorized eye care professionals (Providers) have been established by ORR Safety, throughout PAR Electric's areas, to service the safety eyewear needs of PAR employees.

How to obtain prescription safety glasses:

1. Contact Anne Hill - PAR Corporate at 816-691-4295 (Contact for all questions)
2. Employee Responsibility - Obtain a corrective lens prescription from your personal eye care professional. Workers may choose to have their personal eye doctor or the eye care professionals at the authorized Provider office, perform the eye exam. However, written prescriptions for safety glasses must be fulfilled by a participating Provider. Prescriptions over two (2) years old or expired will not be accepted under the program.
3. At a local authorized Provider, present your eyeglass prescription, your employee identification number and the division# for the plant you are working at when ordering your safety eyewear. Use ORR Safety's Provider Locator to quickly locate a Provider in your area. Be sure you inform the Provider that you wish to get SAFETY GLASSES under PAR Safety Eyewear Program, particularly if you will also be purchasing personal eyewear. Please make sure to inform the Provider of what division you are working at when ordering your safety glasses. It's always wise to call ahead and make an appointment.
4. Select a frame from ORR Safety's occupational display case. You may preview frames provided by PAR and ORR Safety online or from printed catalogs located at your safety office.
5. Have the provider measure your face for proper fit and complete the order. There are no forms for employees to complete. The provider will verify eligibility and complete the order form for PAR. Upon notification by the Provider, return to their office and pick up your safety glasses. Generally, it will take 7-10 business days for ORR Safety's lab to construct the glasses and ship them back to the provider.

General Requirements – Civil Work / Excavations

Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated. (CFR 1926.651(k)(1))



Drilled excavations 6 feet or more in depth shall be protected from falling by guardrail systems, fences, hard barricades or covers. (CFR 1926.501(b)(7)(ii))

Special Notes:

Before soil is broken, dig permits need to be obtained and verified to be within the permit date. Dig Laws shall be followed. If dig alerts cannot be obtained (in situations like private property) PAR management will visually survey the area for signs of buried utilities and develop a plan to safely complete the task. Involve the Xcel Energy with the process as need.

Reference:

<https://www.colorado811.org/>

Reference: PAR Safety Manual

Best Practice: Drilled Hole – Pier of Direct Embed Foundations

PAR Equal Potential Grounding and Bonding Work Zone Safety

Equipment

Wind

The qualified person and Foreman on site are responsible for verifying that it is safe to operate based upon the manufactures recommended specifications

Crane Operations with Personnel Platform

1926.1431(k)(8)

Environmental conditions.

1926.1431(k)(8)(i)

Wind. When wind speed (sustained or gusts) exceeds 20 mph at the personnel platform, a qualified person must determine if, in light of the wind conditions, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminated).

1926.1431(k)(8)(ii)

Other weather and environmental conditions. A qualified person must determine if, in light of indications of dangerous weather conditions, or other impending or existing danger, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminated).

Electrical Safety

PAR will follow Xcel Energy Minimum Approach Distances, while taking into consideration PAR expected work practices.



Clearance, Testing, Grounding Procedure

- Verify your clearance (procedures, paperwork/orders, open points, etc.)
- Understand how your voltage detectors work.
- Verify that the detector and accessories appropriate for the voltage and task.
- Verify that equipment is in proper working condition.
- Use voltage detectors when test verifying clearances. The detectors must provide a numeric reading (digital or analog).
- Test a known energized source with instrument to verify it is working properly, test the de-energized equipment and/or conductors with instrument, and then retest instrument on a known energized source.
- Complete clearance and grounding paperwork/logs throughout the process.
- Ground verified and tested de-energized equipment and/or conductors.

No worker shall approach or take any conductive object closer to exposed energized parts than the minimum approach distances listed in the table below unless:

- The worker is insulated from the energized part with rubber gloves or rubber gloves and sleeves AND the worker has positive control of the energized part.
- The energized part is insulated from the worker and from any other conductive object at a different potential OR
- The worker is insulated from any other exposed conductive object in accordance with requirements for live line bare hand work.

MIMINUM APPROACH DISTANCES – MAD (6500 FOOT ELEVATION)		
CIRCUIT VOLTAGE	MAD	
	PHASE-TO-GROUND	PHASE-TO-PHASE
5.1-15kV	2 ft – 5 inches	2 ft 6 inches
15.1 – 36 kV	2 ft – 10 inches	3 ft – 3 inches
36.1 – 46 kV	3 ft – 1 inch	3 ft – 7 inches
69kV	3 ft – 8 inches	4 ft – 5 inches
115 kV	4 ft – 2 inches	5 ft – 2 inches
230 kV	7 ft – 3 inches	11 ft – 3 inches
345 kV	12 ft – 6 inches	20 ft – 1 inch
500 kV	18 ft – 6 inches	30 ft – 0 inches

Clearance distances for equipment (Covered by OSHA 1926.600, Subpart O) operators that are not qualified employees per Subpart V



Equipment Operator is NOT a Qualified Electrical Worker Subpart O – 1926.600	
Voltage Range (phase to phase)	Minimum working and clear hot stick distance
<50 kV	10 ft.
69 kV	11 ft.
138 kV	13 ft.
230 kV	16 ft.
345 kV	20 ft.
500 kV	25 ft.
765 kV	35 ft.

NOTE: 1926.600(a)(6) - For lines rated over 50 kV, minimum clearance between the lines shall be 10 feet plus 0.4 inch for each 1 kV over 50 kV, or twice the length of the line insulator, but never less than 10 feet;

Crane Clearances

Operators that are not qualified employees per Subpart V

TABLE A—MINIMUM CLEARANCE DISTANCES

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.

1926.1411 – Traveling under or near power lines with no load

Table T-Minimum Clearance Distances While Traveling With No Load

Voltage (nominal, kV, alternating current)	While traveling-minimum clearance distance (feet)
up to 0.75	4
over .75 to 50	6
over 50 to 345	10
over 345 to 750	16
Over 750 to 1,000	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).

1926.1411(b)(4)

Dedicated spotter. If any part of the equipment while traveling gets closer than 20 feet to the power line, the employer must ensure that a dedicated spotter who is in continuous contact with the driver/operator is used. The dedicated spotter must:

- (i) Be positioned to effectively gauge the clearance distance.
- (ii) Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator.



- (iii) Give timely information to the operator so that the required clearance distance can be maintained.

Reference: PAR Safety Manual
PAR – MAD Best Practices
PAR – Requirements for Establishing EPZ
PAR - Equal Potential Grounding and Bonding Work Zone Safety

Grounding

Equipotential grounding will be used when grounding is needed for the protection of the employees. All PAR employees will be trained in grounding.

A grounding plan will be completed by field management. The plan will be communicated to all field personnel. Any change to the grounding plan must be approved by the General Foreman and the project management team.

Equipment and Vehicle Grounding

The following is from the PAR Equipotential Bonding and Grounding Program regarding utility vehicle barricading and grounding.

Equal Potential Grounding and Bonding Work Zone Safety

Grounding and Bonding of Utility Vehicles and Equipment

General Requirements

- A Job Task Safety Analysis (JTSA) must be documented and presented to all workers involved before beginning any job to discuss potential hazards. When the task includes working around utility vehicles operating near energized lines and devices, the safe work methods for working around utility vehicles and equipment must be understood by everyone involved with the task.
- During the Job Task Safety Analysis (JTSA), the following electrical hazards must be considered regarding utility vehicles and equipment:
 - Touch and step potential should the equipment become energized.
 - Means of ingress and egress during normal operation.
 - Means of ingress and egress during emergency situations.
- During the Job Task Safety Analysis (JTSA), the following factors must be considered to determine minimum approach distance:
 - Is the operator a qualified electrical worker?
 - Electrically qualified operators can work within the prohibited zone as stated in 29 CFR 1926.1408.
 - Non-electrically qualified operators must work off distances stated in 29 CFR 1926.1408 Table A.
- Utility vehicles and equipment have the potential to become energized by:
 - Contact with an energized line.
 - Contact with a grounded line under induction or fault conditions.
 - Contact with a grounding system the line is connected to during induction or fault conditions.
- Whenever a utility vehicle or equipment has the potential to become energized, barricading shall be used. Barricading provides a physical and visual obstruction to warn workers of possible danger.
- Barricaded areas shall not be entered by employees unless the following rules are followed:
 - Establish verbal communications with the person operating the controls.
 - Ensure the equipment and/or load is not within the minimum approach distance (MAD).
 - Ensure the operator's hands are off the controls and will remain off and all work is stopped while the employee is within the barricaded work zone.
- Barricades shall be placed such that workers positioned outside the barricade cannot reach across and contact equipment or personnel inside the barricade. In addition, precautions shall be taken to protect the general public from entering the work zone.



When it is required for an employee to operate or assist in the operation of equipment from the ground within the barricaded area, the employee shall be protected from hazardous differences in potential.

Equal Potential Grounding and Bonding Work Zone Safety

- If an insulated aerial manlift is operated where it may encroach the applicable minimum approach distance (MAD) to exposed energized lines and equipment, the operation must comply with either of the requirements listed below:
 - The energized lines and electrical equipment exposed to contact must be covered with insulating protective material rated for the voltage involved, and/or
 - The equipment must be insulated for the voltage involved.
- Uninsulated equipment must maintain minimum approach distance (MAD) from exposed energized parts.
- While performing energized work, or work near, over or under energized lines or electrical equipment, all vehicles that have the potential to become energized shall be barricaded and grounded. Grounds shall be capable of conducting maximum anticipated fault current.
- While performing de-energized work on properly grounded lines and equipment, all vehicles shall be barricaded.
- When grounding utility vehicles and equipment, use the best available ground source at the worksite to minimize the time that the energized circuit or parts remain energized in case of unintentional contact.
- Utility vehicle grounds must be located so that, during a fault, they will not injure workers.
- Utility vehicle grounds shall be capable of conducting the maximum anticipated fault current.
- Utility vehicle grounds, if used, must not be removed until all vehicles that may be bonded together are clear of lines or devices.
- Under normal operating conditions, employees shall not contact or make an attempt to get on/off any piece of equipment that has the potential to become energized unless the employee is protected from differences in electrical potential.
- There are three (3) acceptable methods of making contact with a utility vehicle, structure or driven ground rod while it has the potential to become energized. By level of protection:
 1. Employees may stand on a conductive mat that is electrically bonded to that equipment. When accessing the conductive mat, employees must first step from the earth to a dielectric transition step or bridge before stepping onto the conductive mat. Egress from conductive mat shall be done in reverse order.
 2. Employees may access/egress the equipment by means of a dielectric transition step or bridge, provided that the employee cannot contact both the equipment and earth during transition.
 3. Employees may wear rubber insulating gloves and rubber insulating overshoes that are rated for the voltage of the potential exposure.
- In an emergency situation, employees may get on/off a piece of equipment to operate the lower controls to perform a bucket rescue provided that one of the above personal protective measures is taken.
- If line conductors and utility vehicles are grounded to the same point, the equipment ground should be identified by use of a flag, ribbon, or some other device.

Reference: PAR Safety Manual

PAR – MAD Best Practices

PAR – Requirements for Establishing EPZ

PAR - Equal Potential Grounding and Bonding Work Zone Safety

Ground Testing

Grounds: Grounds are tested annually. Prior to use grounds are to be inspected to verify they are in proper working condition and within the test dates.



Hot/Energized Work Equipment Dielectric Testing

- Gloves:** Rubber insulating gloves are tested before first issue and every 6 months thereafter, upon indication that insulating value is suspect and after use without protectors. Rubber insulating gloves will be inspected prior to use to verify they are in proper working condition and within the test dates. Rubber insulating gloves are also changed out every **90 days** from their issue date per the local IBEW contract.
- Sleeves:** Rubber insulating sleeves are tested before first issue and every 12 months thereafter, upon indication that insulating value is suspect and after use without protectors. Rubber insulating sleeves will be inspected prior to use to verify they are in proper working condition and within the test dates. Rubber insulating gloves are also changed out every **90 days** from their issue date per the local IBEW contract.
- Hot Sticks:** Hot sticks shall be removed from service every year for examination, cleaning, and testing. Hot sticks will be inspected prior to use to verify they are in proper working condition and within the test dates.
- Blankets:** Rubber blankets are tested before first issue and every **6 months** thereafter and upon indication insulating value is suspect. Rubber insulating blankets will be inspected prior to use to verify that they are in proper working condition and within the test dates.
- Cover-up:** Rubber insulating cover is to be tested upon indication that the insulating value is suspect. Rubber insulated cover will be inspected prior to use to verify it is in proper working condition. Rubber insulating line hose will be annually tested.
- Other:** Plastic guard equipment shall meet the requirements of ASTM F712-06. Plastic guard equipment is to be inspected prior to use to verify that it is in proper working condition.

Addition Information/ Consent for Use

Additional information, interpretations, and consent to use the information herein can be obtained by contacting:

Vice President of Safety, Training and Environmental
4770 N. Belleview Ave, Suite 300
Kansas City MO 64116
Phone: 816-691-4236
Fax: 816-691-4242



Addendum C – PAR Documents

HOT WORK AUTHORIZATION

**BEFORE INITIATING HOT WORK, ENSURE PRECAUTIONS ARE IN PLACE!
MAKE SURE AN APPROPRIATE FIRE EXTINGUISHER IS READILY AVAILABLE!**

This Hot Work Authorization is required for any operation involving open flames. This includes, but is not limited to: Tasks where open flame is present, welding/cadwelding, burning, cutting, grinding, powder-activated tools, soldering, brazing, thawing pipes, and torch-applied roofing.

INSTRUCTIONS	Precautions Checklist (Check all precautions that apply to the work being performed and the location)
Verify applicable precautions (or do not proceed with the work).	<input type="checkbox"/> Available sprinkler, hose streams, and extinguishers are in service/operable.
DATE:	<input type="checkbox"/> Hot work equipment in good repair.
LOCATION:	<input type="checkbox"/> Floors swept clean.
WORK TO BE DONE:	<input type="checkbox"/> Fire-resistant tarpaulins suspended beneath work.
The employee performing hot work in non-designated hot work areas must obtain the approval from the Employee in Charge prior to performing hot work.	<input type="checkbox"/> Construction is noncombustible and without combustible covering or insulation.
NAME OF PERSON DOING HOT WORK:	<input type="checkbox"/> Combustibles on other side of walls moved away.
I verify the above location has been examined, the precautions checked on the Precautions Checklist have been taken to prevent fire, and permission is authorized for work.	<input type="checkbox"/> Enclosed equipment cleaned of all combustibles.
SIGNED:	<input type="checkbox"/> Containers purged of flammable liquids/vapors.
Authorization Expires:	<input type="checkbox"/> Fire watch is trained in use of this equipment and in sounding alarm.
Date: _____	<input type="checkbox"/> Fire watch may be required for adjoining areas, above, and below.
Time: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> Area protected with smoke or heat detection.
	Fire watch required: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Name of Fire Watch: _____
	Time of Fire Watch: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM



Addendum G – ROW Access Addresses

*GPS Coordinates used for directional reference.

Segment 3 ROW Access				
Coordinates	Nearest Structure	County Road	2 Driveways	Parcel Owner
38.992122, - 102.501408	7263-001	Cr 36 & Cr DD		Dry Land Partners LLC
38.941128, - 102.5006	N/A	Cr Z		??
38.970219, - 102.464681	7263-021	Cr 38		Triple L Farms LLC
38.955567, - 102.464025	7263-026	Cr 38		Triple L Farms LLC
38.941283, - 102.464419	7263-032	Cr Z	North to South	Lowe
38.926711, - 102.463664	7263-037	Cr 38		Lowe
38.919503, - 102.463544	7263-040	Cr 38		Lowe
38.912147, - 102.463439	7263-042	Cr 38		Lowe
38.897736, - 102.463264	7263-048	Cr 38		Semrad
38.883033, - 102.463094	7263-053	Cr 38		Cheyenne County Farm LLC
38.868525, - 102.463281	7263-058	Cr 38 & Cr U	East to West	Cheyenne County Farm LLC
38.868603, - 102.444703	7263-058	Cr 38 & Cr U		Cheyenne County Farm LLC
38.868603, - 102.444719	7263-063	Cr U	North to South	Cheyenne County Farm LLC
38.826514, - 102.44435	7263-079	Cr R	North to South	Evelyn
38.826839, - 102.425817	7263-085	Cr R		Mitchek
38.827061, - 102.407819	7263-090	Cr R		Mitchek
38.768733, - 102.406697	7263-111	Cr M	North to South	???
38.739661, - 102.406439	7263-122	Cr K		Snodgrass
38.740114, - 102.378392	7263-130	Cr K		Roth



38.740358, - 102.369219	7263-133	Cr 43	East to West	Roth
38.740378, - 102.350683	7263-138	Cr 44	East to West	Estate of Heinz
38.740294, - 102.332889	7263-143	Cr K Near Hwy 385	North to South	Share
38.711289, - 102.332006	7263-154	Hwy 385		Bowen
38.696783, - 102.332881	7263-159	Cr G	North to South	Bowen
38.658542, - 102.327631	7263-173	Hwy 385		Schaefer Trust
38.644106, - 102.328678	7263-178	Cr C	North to South	Schaefer Trust
38.615172, - 102.328472	7263-188	Cr A	North to South	S S & N Farms Inc
38.586411, - 102.328475	7263-198	Cr Z	North to South	R. Weber LLLP
38.571831, - 102.327414	7263-203	Cr Y		R. Weber LLLP
38.571836, - 102.328375	7263-203	Cr Y	North to South	R. Weber LLLP
38.556867, - 102.327286	7263-209	Cr 65		R. Weber LLLP
38.542692, - 102.328242	7263-213	Cr 64	North to South	R. Weber LLLP
38.5082, - 102.327186	7263-226	Cr 65		Scherler
38.498806, - 102.327303	7263-229	Cr T	North to South	Stulp
38.4988, - 102.328247	7263-229	Cr T		Stulp
38.462233, - 102.326361	7263-243	Hwy 96		Weber
38.414122, - 102.325667	7263-260	Cr L	North to South	Stokes
38.399067, - 102.325286	7263-265	Cr K	North to South	Tallman Farms
38.39795, - 102.341122	7263-270	Cr K	East to West	J. J. Schneider Farms, LLLP
38.397417, - 102.344228	7263-270	Cr 64	East to West	J. J. Schneider Farms, LLLP
38.397306, - 102.3625	7263-276	Cr K		Steen
38.397403, -	7263-281	Cr K		J. J. Schneider



102.381275				Farms, LLLP
38.397414, - 102.399933	7263-286	Cr K	East to West	Williams
38.397164, - 102.399642	7263-286	Cr 61	North to South	Williams
38.380531, - 102.399467	7263-292	Cr 61		Williams
38.363597, - 102.399386	7263-298	Cr 61		M & P Farms
38.354028, - 102.400472	7263-302	Cr G	North to South	Tallman Farms
38.354, - 102.403175	7263-302	Cr G		Tallman Farms



Addendum G – Crossings (Guard Locations)

Below are site-specific structures with additional precautions that must be considered, including energized crossings needing guard structures or excavation challenges.

Segment 3 Crossings			
Closest Structure(s) Number	GPS Coordinates or intersections		Closest ROW Intersection / Hazards
Hazards Present Along Most of the ROW: Structure-specific locations identified for energized crossings and probable guard structures. Energized facility owners must be notified to coordinate Hot-Line Non-reclose arrangements.			
STR 002DE Transmission Crossing	38.990601	-102.499103	Co Rd EE & Co Rd DD
STR 032 Distribution Crossing	38.941197	-102.464256	Co Rd 38 & Co Rd Z
STR 041-042 Distribution Crossing	38.9157	-102.463507	Co Rd 38 & Co Rd Z
STR 079DE Distribution Crossing	38.826595	-102.444746	Co Rd 38 & Co Rd R
STR 084-085 Distribution Crossing	38.826681	-102.425743	Co Rd 38 & Co Rd R
STR 090DE Distribution Crossing	38.827136	-102.40755	Co Rd 42 & Co Rd R
STR 106 Distribution Crossing	38.78307	-102.407373	Co Rd 40 & Co Rd M
STR 132-133 Distribution Crossing	38.740429	-102.369353	Co Rd 43 & Co Rd K
STR 143DE Distribution Crossing	38.740205	-102.333151	Hwy 385 & Co Rd K
STR 159-160 Distribution Crossing	38.696901	-102.332874	Hwy 385 & Co Rd G
STR 198-199 Distribution Crossing	38.586458	-102.328377	Hwy 385 & Co Rd Z
STR 242-243 Distribution Crossing	38.462091	-102.326315	Hwy385 & Hwy 96
STR 002DE Transmission Crossing	38.990601	-102.499103	Co Rd EE & Co Rd DD
STR 032 Distribution Crossing	38.941197	-102.464256	Co Rd 38 & Co Rd Z
STR 041-042 Distribution Crossing	38.9157	-102.463507	Co Rd 38 & Co Rd Z
STR 079DE Distribution Crossing	38.826595	-102.444746	Co Rd 38 & Co Rd R
STR 084-085 Distribution Crossing	38.826681	-102.425743	Co Rd 38 & Co Rd R
STR 090DE Distribution Crossing	38.827136	-102.40755	Co Rd 42 & Co Rd R
STR 106 Distribution Crossing	38.78307	-102.407373	Co Rd 40 & Co Rd M
STR 132-133 Distribution Crossing	38.740429	-102.369353	Co Rd 43 & Co Rd K
STR 143DE Distribution Crossing	38.740205	-102.333151	Hwy 385 & Co Rd K
STR 159-160 Distribution Crossing	38.696901	-102.332874	Hwy 385 & Co Rd G
STR 198-199 Distribution Crossing	38.586458	-102.328377	Hwy 385 & Co Rd Z
STR 242-243 Distribution Crossing	38.462091	-102.326315	Hwy385 & Hwy 96



You're first on the scene. What's next?

As an emergency responder you do everything possible to keep your community safe. But if the situation involves electricity or natural gas, do you know how to keep the public and your team safe? Utility emergencies present unique dangers to recognize and handle. Knowing about them and specific actions to take can lead to better results and, ultimately, to saved lives.

Responding to Utility Emergencies (RTUE) Online

(<https://Xcel-Energy.RTUEonline.com>) can effectively bridge the knowledge gap. It complements your department's training program, and gives you new information. It also provides a refresher about working safely during a utility emergency.

RTUE Online offers access to effective interactive training based on national standards. It includes learning objectives and application activities to educate and engage all types of responders, including firefighters, police officers and other emergency personnel. Training can be tracked and a certificate will be offered upon completion of the course.



The screenshot shows the Xcel Energy RTUE Online training website. At the top, there's a navigation bar with links for 'Electrical Emergencies', 'Natural Gas Emergencies', 'Final Assessment', and 'Resources'. The main content area features a testimonial from Aaron at Fairfax Fire Department, a welcome message, and a 'Trainer's Toolbox' section. A quiz question is visible: 'Are you Street-Smart or Book-Smart? All lines are _____'. Below the quiz are three training track options: 'FIRE / RESCUE', 'LAW ENFORCEMENT', and 'COMMUNITY AWARENESS', each with a 'REGISTER' button.

"Nice work, you should be proud of this valuable safety training tool ... Best tool I've seen so far in my career as a fire fighter (24 years) and utility professional (31 years)."

UTILITY SAFETY CONSULTANT AND MINNESOTA FIREFIGHTER

<https://Xcel-Energy.RTUEonline.com>

For more information please contact PublicSafety@xcelenergy.com.

This awareness training program is provided to you compliments of Xcel Energy.

Also, RTUE Online is continually updated to ensure you have relevant, real-time information. The course incorporates interactive media and features former fire captain and nationally-recognized author Mike Callan.

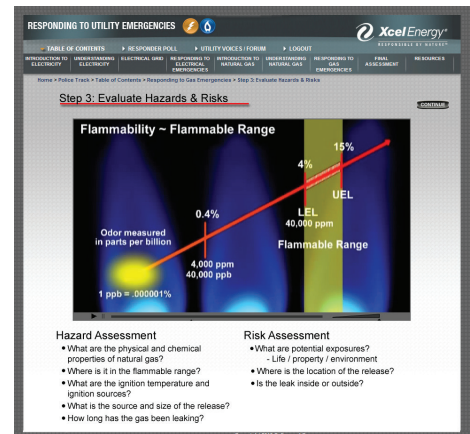
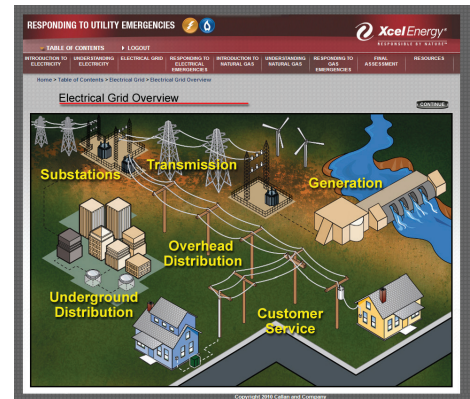


About Mike Callan

Mike Callan is a 40-year veteran of the fire service, serving 20 of those years as a Captain with the Wallingford, Connecticut Fire Department. In 2013, Mike was awarded the John M. Eversole Lifetime Achievement Award to recognize his distinguished career in hazardous materials emergency response. In addition to Responding to Utility Emergencies, Mike has written numerous training and instructor guides and conducts safety, chemical and emergency response programs for industrial and municipal hazmat teams throughout the U.S. Mike is passionate about accident prevention through education, and most importantly, about saving lives.



Want to learn more? Please visit us at <https://Xcel-Energy.RTUEonline.com> or contact us at PublicSafety@xcelenergy.com.



Training tracks for fire/rescue and law enforcement cover:

- Understanding Electricity
- The Electrical Grid
- Responding to Electrical Emergencies
- Understanding Natural Gas
- Responding to Natural Gas Emergencies

“Hello, My Name is Chief Wes Williams with the Ruggles–Troy Volunteer Fire Department in Nova, Ohio. I am writing to let you know that this site will be beneficial to ALL emergency first responders. The site is user friendly as well as informational without losing your interest. Job well done!”

Substation fire response

The overall mission of an emergency response involving Xcel Energy substations is always to:

1. Protect lives.
2. Establish a protective perimeter around the substation, protecting surrounding structures: DO NOT enter or extinguish any substation equipment until given authorization by Xcel Energy substation personnel.
3. Assist Xcel Energy in efforts to stabilize the incident, as directed/needed.

Responders must use extreme caution around high voltage areas due to the severe electric hazards. High voltages in these sites can exceed 500,000 volts, or 500 kilovolts (kV), and operating amperages (A) of 1000A or more. Substations contain transformers, circuit breakers, switch gear, capacitors, bus bars (large diameter, non-insulated metal conductors) and large banks of batteries to control power in control rooms.

Electrical emergencies at Xcel Energy substations should be approached cautiously. Responders should wait for Xcel Energy personnel to arrive before initiating any type of offensive actions (see note 2 above). Since there is extreme risk to responders during high voltage emergencies, decisions must be made by the emergency services incident command in conjunction with Xcel Energy's incident commander. Unified command is critical in these types of operations.

Caution

Substations can have a great deal of oil. It is used for cooling transformers and as an arc suppression agent while opening a circuit breaker. In some facilities the oil reservoir can be very large, or stored indoors.

When there is a fire or damage to oil-cooled equipment, an oil spill can result. Regular hazardous materials tactics can be employed if the area is free from any energized equipment. Most utilities have eliminated the polychlorinated biphenyl (PCB) problem in their cooling oils; however, the real hazards are the flammability of heated oils and the ever-present danger of energized equipment.

Emergency numbers

IMPORTANT: These numbers are for emergency responders only. **DO NOT release these numbers** to the public! Ensure that 911 dispatchers do not transfer calls to our Emergency Response Line.

Life-threatening

Electric emergencies

800.641.4400

Natural gas emergencies

800.541.8441

Non life-threatening

Emergencies or Essential Services Outages

800.771.7300

General public numbers

Xcel Energy electric outage

800.895.1999

Xcel Energy gas emergency/gas odor

800.895.2999

Xcel Energy residential customer service

800.895.4999

Xcel Energy business solutions center

800.481.4700

TDD/TYY (hearing-impaired service)

800.895.4949

xcelenergy.com/Safety



Fire safety response for substation emergencies



Any operation involving Xcel Energy substations requires de-energizing the affected equipment and isolating of the surrounding area. If entry is deemed necessary by a unified command team, emergency personnel should be guided by Xcel Energy substation electricians.



Unified command at utility emergencies

In large incidents, it is common to use a modified incident command structure, called unified command, whereby representatives from both the emergency services command and utility companies work together. They share information and coordinate personnel to develop an overall action plan that best solves the problem. The unified command team develops an incident action plan that uses agreed-upon strategies and tactics to accomplish the mission.

In high voltage emergencies involving an electric substation or a generation plant, the unified command process is the only way to guarantee success and assure the safety of all responders and utility personnel at the scene. Unified command at utility emergencies provides a joint method for incident management teams to:

- Determine incident priorities and identify strategic goals
- Select tactics for achieving the strategic incident goals and priorities
- Ensure joint planning for objectives and tactical activities
- Allow joint tactical operations to be conducted
- Maximize the use of all assigned resources
- Provide a method for resolving conflicts among the team players

Decision making for high voltage/substation emergencies

The initial task during high voltage emergencies involving Xcel Energy substations is to determine the tactical action plan. This is done by assessing the incident's potential. The incident commander (IC), based on input from the Xcel Energy, should estimate the likely outcome of the emergency and select the overall operating strategy to favorably impact this outcome.

Pre-planning for substation emergencies will help identify response strategies and tactics, as determined by representatives from both the emergency services and local utility companies, like Xcel Energy. The absence of a preplan for a substation or generation plant emergency raises the risk of disaster and injury.



Pre-planning questions

What type of incident is it?

Is it a generation substation or distribution substation incident? Is the equipment visible from the outside, or is it inside a surrounding wall or building?

Are all safety considerations identified?

Have all electrical safety hazards or considerations associated with the event been identified? Has the site been de-energized and verified by Xcel Energy substation electricians? Can the emergency area be isolated from electricity, and is it of a magnitude that would allow operations without fear of runoff, steam or extinguishing agent contacting energized equipment and causing an arc?

Is there an electrical hazard still present?

Even though the immediate area has been de-energized, equipment nearby may remain energized.

What is the location of the incident?

Is the substation in a rural or remote outside area (perimeter chain link fence), in a populated area (perimeter "fence" limiting view inside), or in the heart of the city (potentially inside a building)?

What is the external public impact?

Has Xcel Energy addressed the informational needs of the emergency services, the impact on the public and what will be necessary to lessen the public's fear, imposition and loss of power? Xcel Energy's communications team is ready to respond.

Are there any other hazards present?

Could there be an explosion, structural instability due to earthquake, mechanical equipment or hazardous materials present. In many substations there is combustible oil used to cool the circuit breakers and transformers. This hazard can create large flammable liquid fires outside and inside the substation.

Can the incident escalate?

What could possibly happen that would make this incident worse and has it been addressed? Can oil in transformers ignite or explode? Will the oil flow through duct openings or travel to lower floors?

Strategy and tactics for substation emergencies

Strategy is the overall goal of the response effort. Strategies are general in nature, such as life safety, incident stabilization, environmental impact and utility service restoration. Examples of common strategic goals at utility emergencies could include the following:

- Rescue (if possible and can be done safely)
- Public protective actions (isolate downed wires, arc safety and downwind evacuation)
- Preventing cooling oil from impacting the environment
- Controlling the spread of oil around the substation
- Fire suppression and control
- Safety during restoration operations

Tactics are action specific and they are implemented to achieve the strategic goals. Tactics could include:

- Protecting in place vs. evacuating
- Use extinguishing agents rather than water spray
- Cooling exposures from radiant heat

Operational modes

Mitigating a utility emergency must be implemented in an overall operational mode. The three modes are non-intervention, defensive and offensive. Criteria for evaluating operational modes include:

- Level of available resources (e.g. personnel and equipment)
- Level of training and capabilities of emergency responders
- Potential harm created by the incident

Nonintervention

"No action" is taken. The risks of intervening are unacceptable when compared to the dangers of fighting the electrical fire. All personnel are withdrawn to a safe location.

Defensive

Conditions indicate that the defensive actions chosen will buy time, enabling the response effort to be directed towards limiting the overall spread of the problem.

Offensive

The offensive mode must never be initiated without Xcel Energy substation electricians present to advise the responder. All operations must be done in conjunction with, and under the direct supervision of substation personnel.