ATTACHMENT T: FIRE DISTRICT COORDINATION LETTERS

1800 Larimer Street
Denver, CO 80202

October 14, 2024

Big Sandy Fire Protection District
219 Sioux Avenue
Simla, CO 80835

Via email: simlafire@gmail.com

RE: Colorado's Power Pathway – Fire District Coordination

To Big Sandy Fire Protection District Fire Captains:

Public Service Company of Colorado (PSCo), a Colorado corporation conducting business as Xcel Energy, is seeking approval of a permit to locate and construct major facilities of a public utility (1041 permit) from El Paso County to construct and operate a portion of Colorado's Power Pathway (Pathway) located in El Paso County. Pathway is a $1.7 billion investment to improve the state's electric grid and enable future renewable energy development around the state. Pathway will increase electric reliability, boost the regional economy, and create jobs during construction. Pathway includes:

- Installation of approximately 550 miles of new 345-kilovolt (kV) double-circuit transmission line in 12 counties;
- Construction of four new electric substations (Canal Crossing, Goose Creek, May Valley, and Sandstone); and
- Expansion, equipment additions, or equipment upgrades at four existing electric substations (Fort St. Vrain, Pawnee, Harvest Mile, and Tundra).

Pathway will be constructed in five segments. Each new or expanded electric substation will serve as an endpoint for the transmission line segments:

- Fort St. Vrain – Canal Crossing (Segment 1)
- Canal Crossing – Goose Creek (Segment 2)
- Goose Creek – May Valley (Segment 3)
- May Valley – Sandstone – Tundra (Segment 4)
- Sandstone– Harvest Mile (Segment 5)

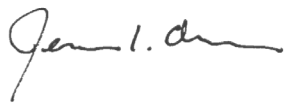
Pathway facilities proposed in El Paso County include 45 miles of 345-kV transmission line within Segment 5. The proposed route in El Paso County is generally oriented in a north to south direction in the area south of Simla, near the El Paso/Lincoln county line (see Attachment 1, Vicinity Map).

Xcel Energy submitted a 1041 permit application to El Paso County in June 2024. As part of the El Paso County referral agency review process, El Paso County has requested that Xcel Energy coordinate with the applicable Fire Districts where Pathway facilities will be located.

El Paso County has requested that Xcel Energy work with each Fire District and devise a plan for fire response, based on the resources of each district. Xcel Energy has prepared materials for your review (Attachment 2), including a Fire Prevention Plan, Fire Prevention and Mitigation training materials for construction workers, and Xcel Energy's Emergency Response Procedures. Please let us know if any additional materials are necessary to facilitate your review.

If any additional information is needed, please feel free to contact me by telephone at (303) 285-6533 or email at jennifer.l.chester@xcelenergy.com, or contact Tiffany Hennig at (806) 378-2146 or Tiffany.A.Hennig@xcelenergy.com.

Sincerely,



Jennifer Chester
Xcel Energy
Siting & Land Rights, Senior Manager
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jennifer.l.chester@xcelenergy.com

Cc:

Tiffany Hennig, Xcel Energy, Siting & Land Rights
Stephanie Phippen, Tetra Tech Inc.

Attachment 1: Vicinity Map

Attachment 2: Fire Prevention Plan, Fire Prevention and Mitigation Training Materials, and Emergency Response Procedures

Attachment 1: Vicinity Map

COLORADO'S POWER PATHWAY

Legend

- Proposed Transmission Route
- Proposed Laydown Yard

Boundary
(CDOT 2021, DOLA 2021)

- Municipal Boundary
- County

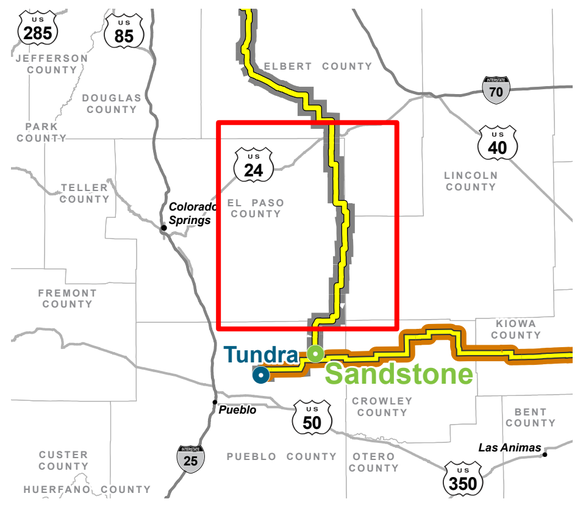
Transportation
(CDOT 2021, BTS 2020)

- U.S. Highway
- State Highway
- Local Road

Hydrology
(NHD 2020)

- Perennial Stream
- Intermittent Stream
- Waterbody

0 2.5 5
Miles



PRELIMINARY, SUBJECT TO CHANGE

The information contained herein is believed to be accurate and suitable for limited internal uses only. Xcel Energy/Public Service Company of Colorado makes no warranty as to the accuracy or suitability of any information contained herein for use by third parties. The accuracy of this map and the information depicted should be verified prior to use. The user shall assume all risk and responsibility for any and all damages, including consequential damages, which may arise from the user's reliance on this information.

Revised: 8/29/2024 | **NOT FOR CONSTRUCTION**

Path: Z:\Projects\DEN\1163_0039_CO_Pathway_Permits\GIS\Layouts\Permitting\El_Paso_Co\El_Paso_Co_Permit.aprx

El Paso County Vicinity

Attachment 2: Fire Prevention Plan, Fire Prevention and Mitigation Training Materials, and Emergency Response Procedures

Fire Prevention Plan

CHANGE RECORD:

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

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.

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.

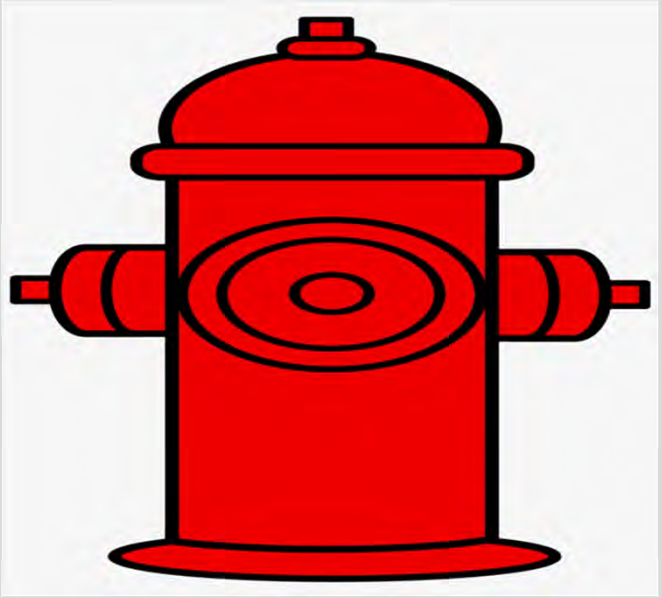
H. PAR supervision will work with Customer, as deemed necessary, to discuss, evaluate, consider, and implement, as applicable, additional fire safety considerations.

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

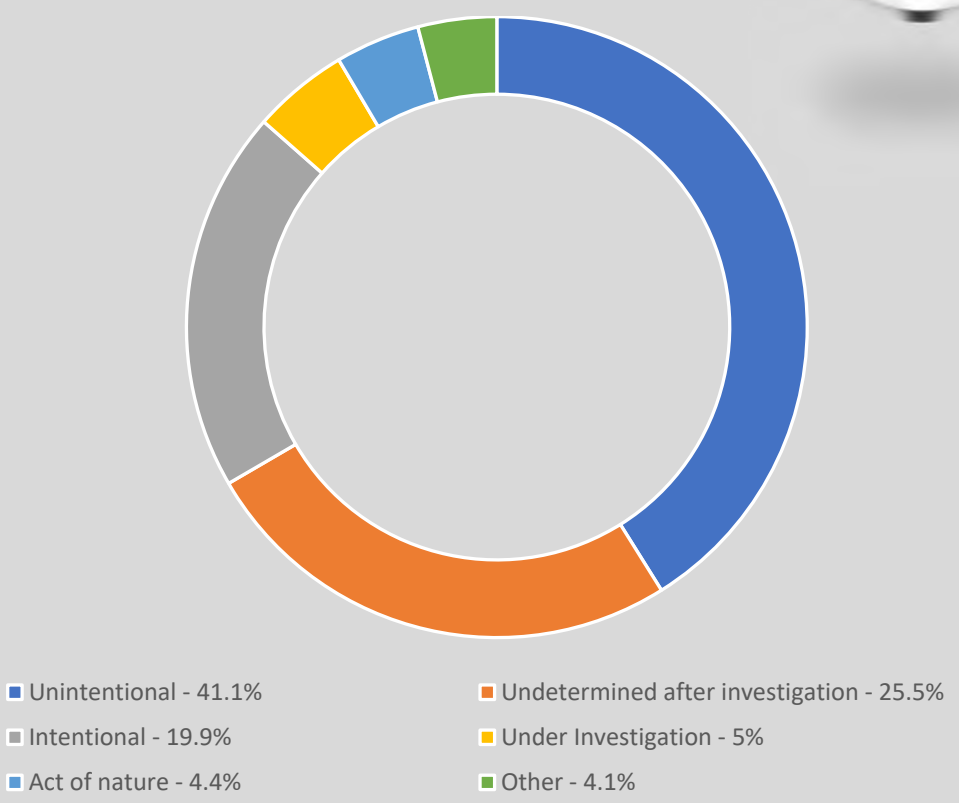


FIRE PREVENTION AND MITIGATION

- 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

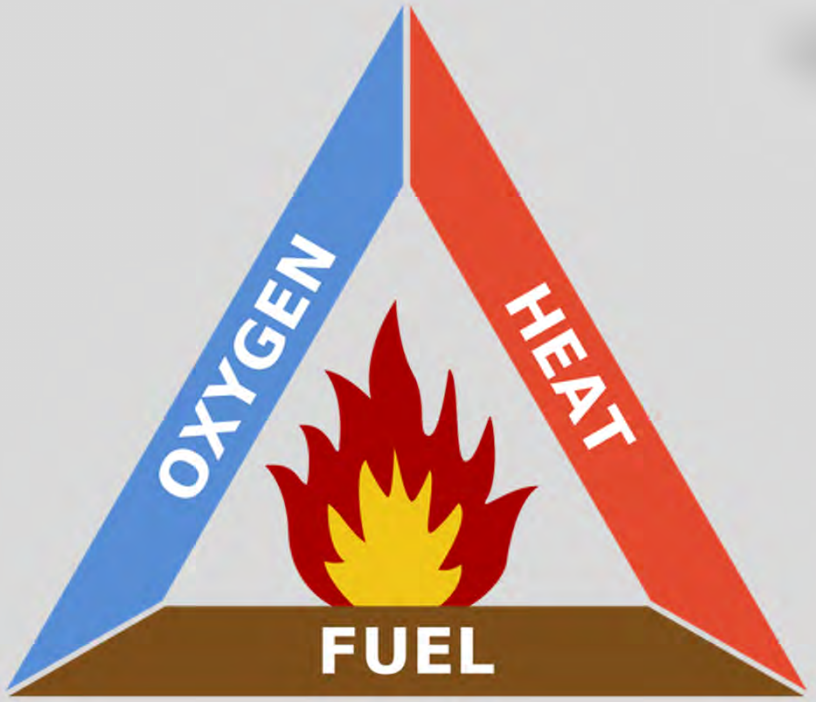
- From 2019 to 2021, there was a 17% increase in U.S. wildfires. (National Interagency Fire Center)
- This U.S. Fire Administration's graphic highlights the causes of outside fires in 2019.
- In 2019 alone, there were 492,500 fires



GRAPHIC BY usfa.fema.gov

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 / **K**itchen

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

CO | MI | MN | ND | NM | SD | TX | WI

Xcel Energy®

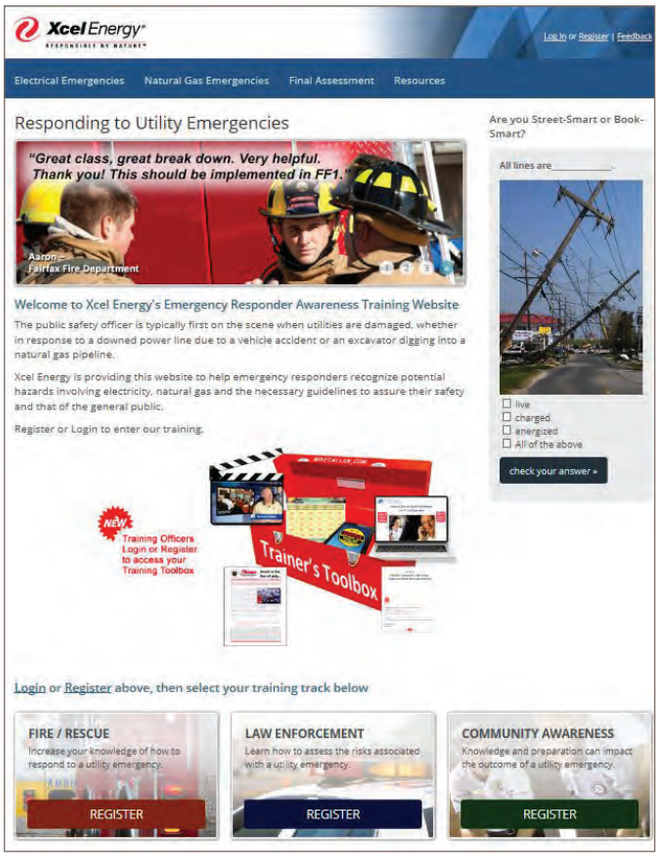
You're first on the scene. What's next?

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.



"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.

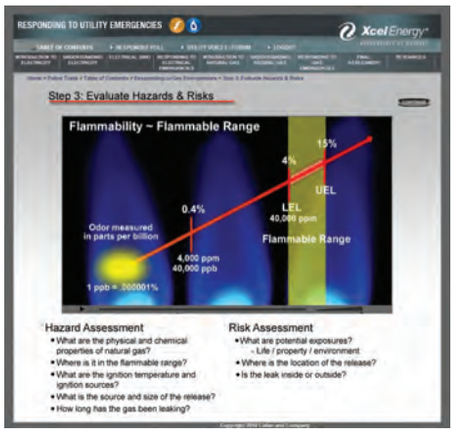
This awareness training program is provided to you compliments of Xcel Energy.

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

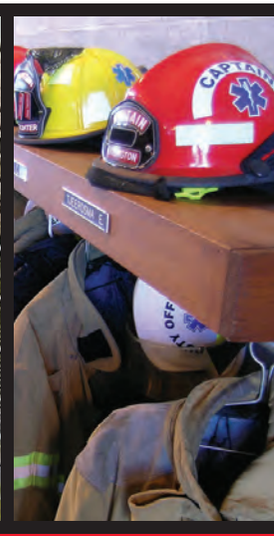
TDD/TYY (hearing-impaired service)
800.895.4949

xcelenergy.com/Safety

Xcel Energy®
RESPONSIBLE BY NATURE®

Xcel Energy®

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.

1800 Larimer Street
Denver, CO 80202

October 14, 2024

Edison Fire Protection District
14550 Edison Road
Yoder, CO 80864

Via email: PIO@edisonfire.org

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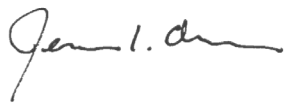

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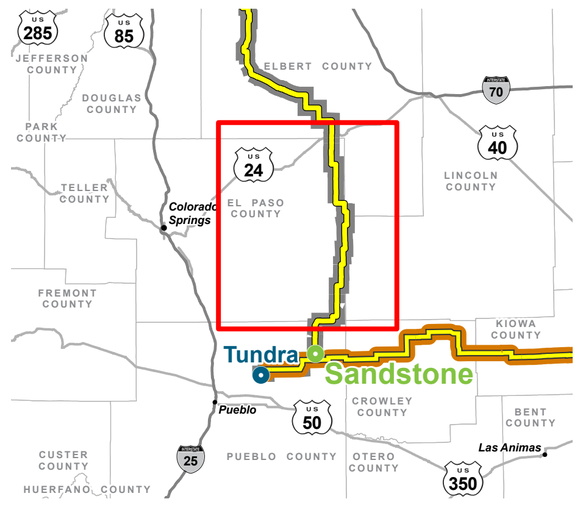
(NHD 2020)

- Perennial Stream
- Intermittent Stream
- Waterbody

0 2.5 5
Miles



PRELIMINARY, SUBJECT TO CHANGE

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Revised: 8/29/2024 | **NOT FOR CONSTRUCTION**

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El Paso County Vicinity

Attachment 2: Fire Prevention Plan, Fire Prevention and Mitigation Training Materials, and Emergency Response Procedures

Fire Prevention Plan

CHANGE RECORD:

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

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.

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.

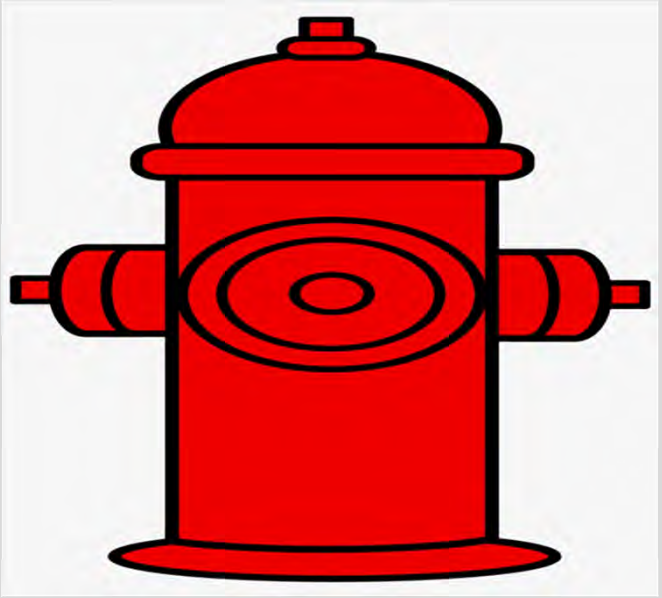
H. PAR supervision will work with Customer, as deemed necessary, to discuss, evaluate, consider, and implement, as applicable, additional fire safety considerations.

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

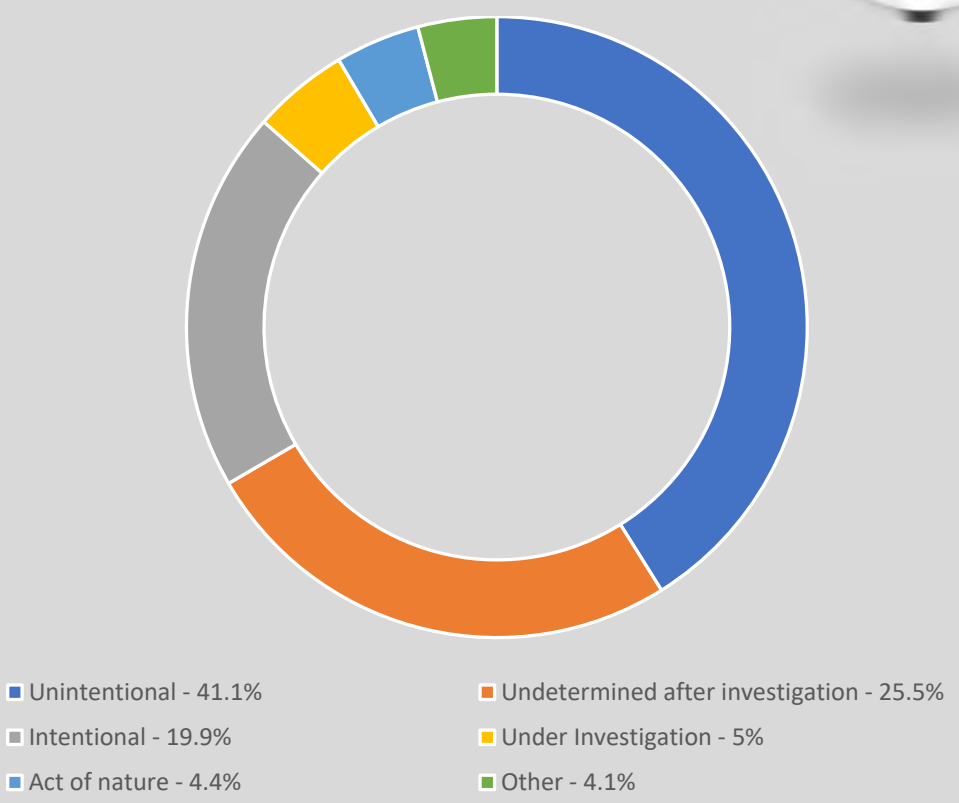


FIRE PREVENTION AND MITIGATION

- 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

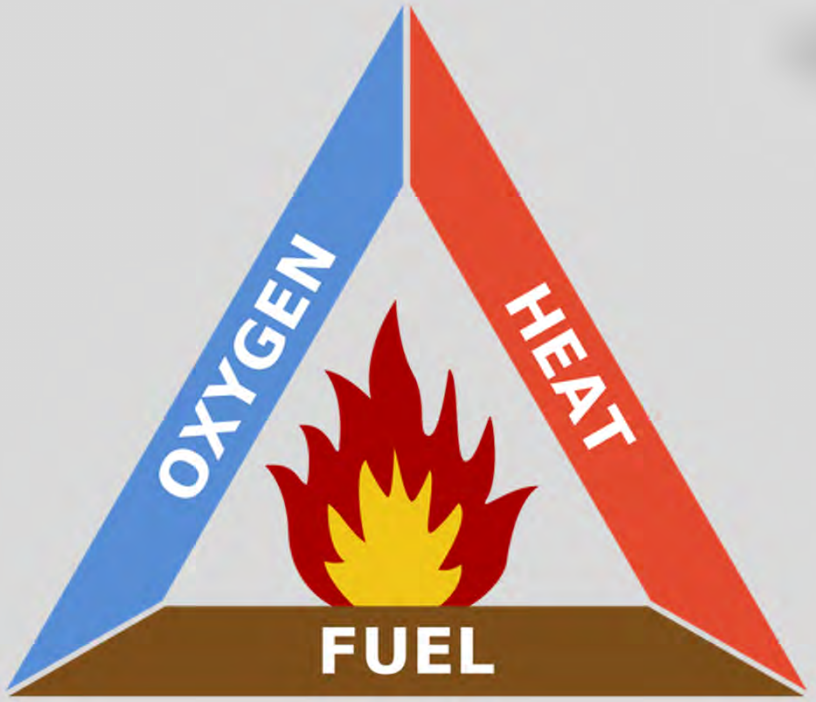
- From 2019 to 2021, there was a 17% increase in U.S. wildfires. (National Interagency Fire Center)
- This U.S. Fire Administration's graphic highlights the causes of outside fires in 2019.
- In 2019 alone, there were 492,500 fires



GRAPHIC BY usfa.fema.gov

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 / **K**itchen

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

CO | MI | MN | ND | NM | SD | TX | WI

Xcel Energy®

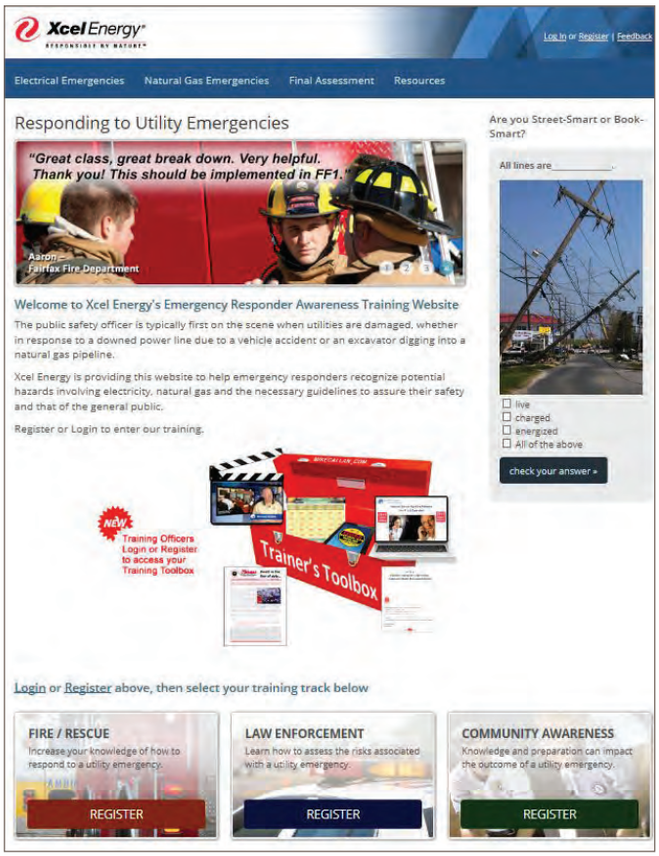
You're first on the scene. What's next?

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.



"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.

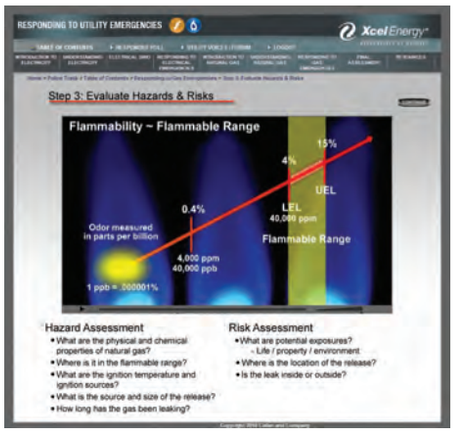
This awareness training program is provided to you compliments of Xcel Energy.

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

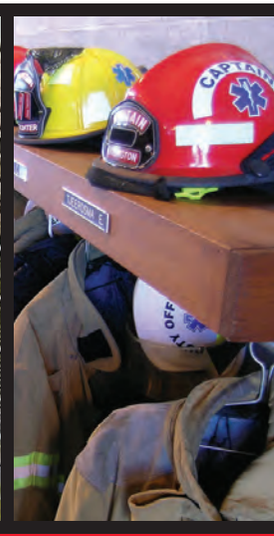
TDD/TYY (hearing-impaired service)
800.895.4949

xcelenergy.com/Safety

Xcel Energy®
RESPONSIBLE BY NATURE®

Xcel Energy®

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.

1800 Larimer Street
Denver, CO 80202

October 14, 2024

Tri-County Fire Protection District
590 N Rush Road
Rush, CO 80833

Via email: trc.chief@elpasotel.net

RE: Colorado's Power Pathway – Fire District Coordination

To Tri-County Fire Protection District Fire Chief:

Public Service Company of Colorado (PSCo), a Colorado corporation conducting business as Xcel Energy, is seeking approval of a permit to locate and construct major facilities of a public utility (1041 permit) from El Paso County to construct and operate a portion of Colorado's Power Pathway (Pathway) located in El Paso County. Pathway is a $1.7 billion investment to improve the state's electric grid and enable future renewable energy development around the state. Pathway will increase electric reliability, boost the regional economy, and create jobs during construction. Pathway includes:

- Installation of approximately 550 miles of new 345-kilovolt (kV) double-circuit transmission line in 12 counties;
- Construction of four new electric substations (Canal Crossing, Goose Creek, May Valley, and Sandstone); and
- Expansion, equipment additions, or equipment upgrades at four existing electric substations (Fort St. Vrain, Pawnee, Harvest Mile, and Tundra).

Pathway will be constructed in five segments. Each new or expanded electric substation will serve as an endpoint for the transmission line segments:

- Fort St. Vrain – Canal Crossing (Segment 1)
- Canal Crossing – Goose Creek (Segment 2)
- Goose Creek – May Valley (Segment 3)
- May Valley – Sandstone – Tundra (Segment 4)
- Sandstone– Harvest Mile (Segment 5)

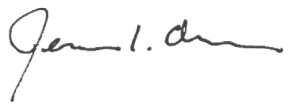
Pathway facilities proposed in El Paso County include 45 miles of 345-kV transmission line within Segment 5. The proposed route in El Paso County is generally oriented in a north to south direction in the area south of Simla, near the El Paso/Lincoln county line (see Attachment 1, Vicinity Map).

Xcel Energy submitted a 1041 permit application to El Paso County in June 2024. As part of the El Paso County referral agency review process, El Paso County has requested that Xcel Energy coordinate with the applicable Fire Districts where Pathway facilities will be located.

El Paso County has requested that Xcel Energy work with each Fire District and devise a plan for fire response, based on the resources of each district. Xcel Energy has prepared materials for your review (Attachment 2), including a Fire Prevention Plan, Fire Prevention and Mitigation training materials for construction workers, and Xcel Energy's Emergency Response Procedures. Please let us know if any additional materials are necessary to facilitate your review.

If any additional information is needed, please feel free to contact me by telephone at (303) 285-6533 or email at jennifer.l.chester@xcelenergy.com, or contact Tiffany Hennig at (806) 378-2146 or Tiffany.A.Hennig@xcelenergy.com.

Sincerely,



Jennifer Chester
Xcel Energy
Siting & Land Rights, Senior Manager
Telephone: (303) 285-6533
jennifer.l.chester@xcelenergy.com

Cc:

Tiffany Hennig, Xcel Energy, Siting & Land Rights
Stephanie Phippen, Tetra Tech Inc.

Attachment 1: Vicinity Map

Attachment 2: Fire Prevention Plan, Fire Prevention and Mitigation Training Materials, and Emergency Response Procedures

Attachment 1: Vicinity Map

COLORADO'S POWER PATHWAY

Legend

- Proposed Transmission Route
- Proposed Laydown Yard

Boundary
(CDOT 2021, DOLA 2021)

- Municipal Boundary
- County

Transportation
(CDOT 2021, BTS 2020)

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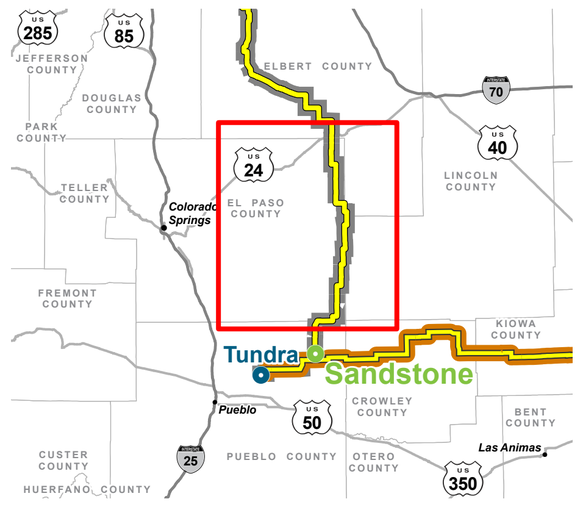

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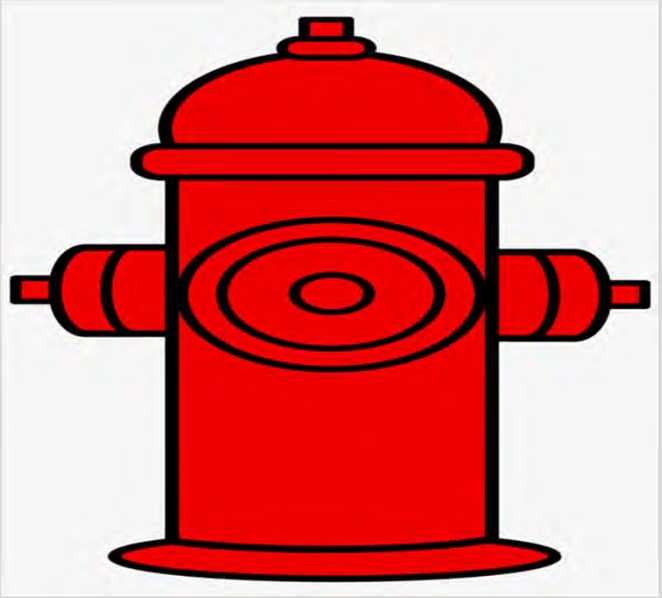
   4. Notify PAR Leadership
   5. If the fire is manageable, use tools and equipment to extinguish
   6. If fire spreads or becomes unmanageable, move all personnel to safety zone

Fire Prevention & Mitigation

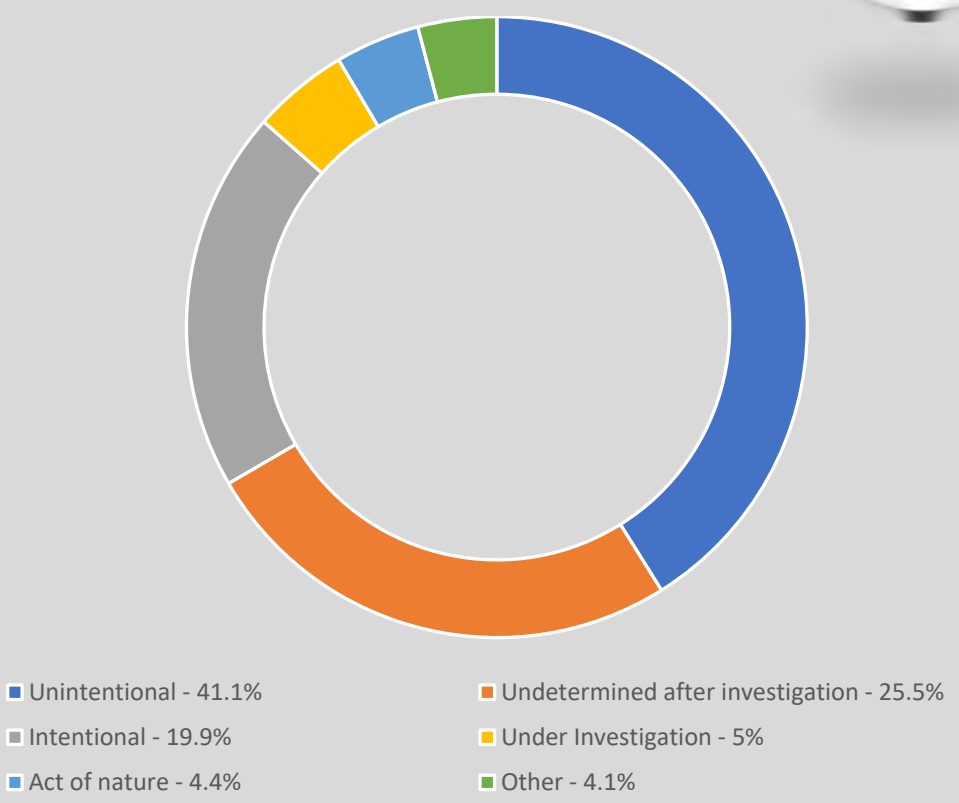


FIRE PREVENTION AND MITIGATION

- 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

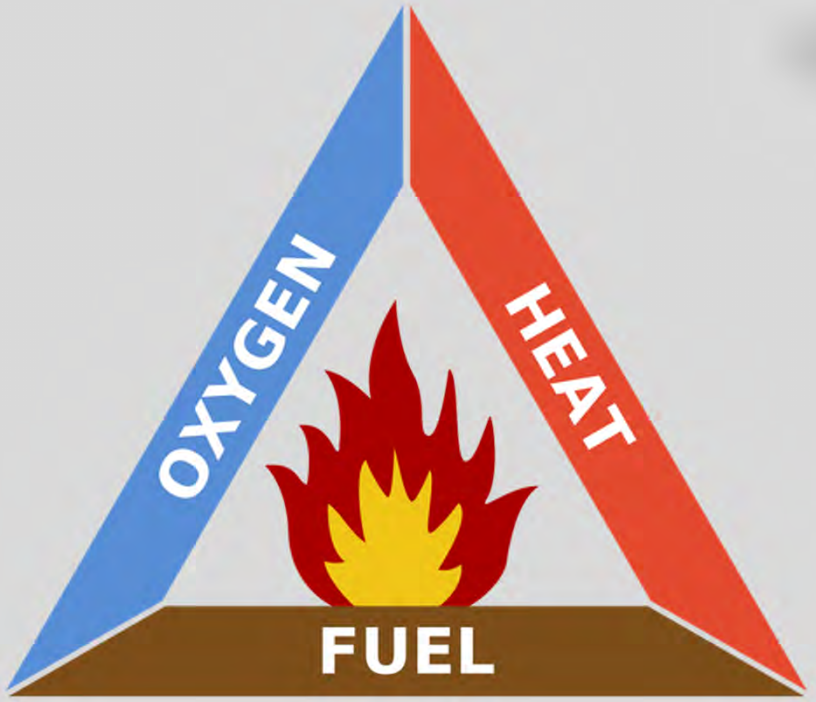
- From 2019 to 2021, there was a 17% increase in U.S. wildfires. (National Interagency Fire Center)
- This U.S. Fire Administration's graphic highlights the causes of outside fires in 2019.
- In 2019 alone, there were 492,500 fires



GRAPHIC BY usfa.fema.gov

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 / **K**itchen

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

CO | MI | MN | ND | NM | SD | TX | WI

Xcel Energy®

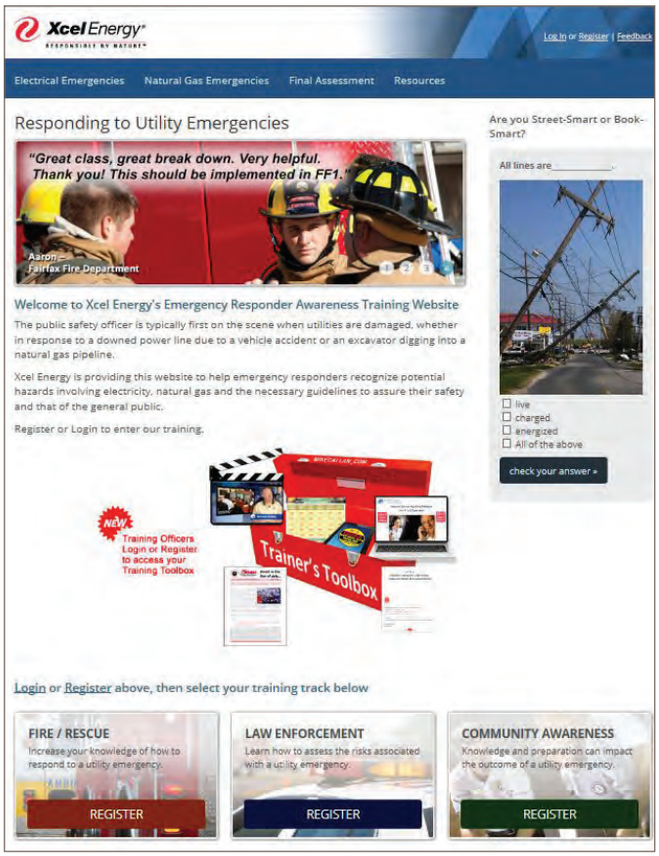
You're first on the scene. What's next?

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.



"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.

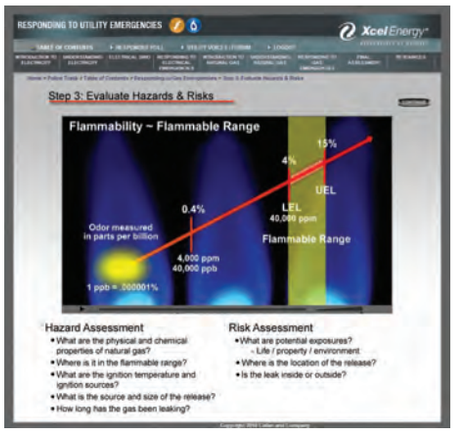
This awareness training program is provided to you compliments of Xcel Energy.

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

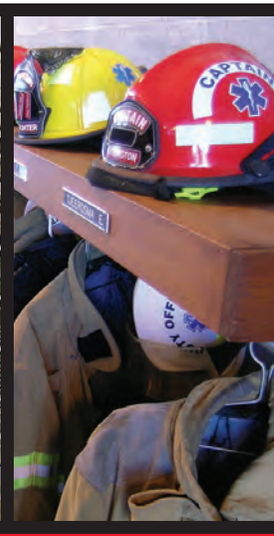
TDD/TYY (hearing-impaired service)
800.895.4949

xcelenergy.com/Safety

Xcel Energy®
RESPONSIBLE BY NATURE®

Xcel Energy®

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.