ARE YOU IN THE LINE OF FIRE?

ENERGY SAFETY CANADA

When stored energy is released it can cause serious or fatal harm to those in its path. Identifying and controlling hazardous energy reduces the risk of being struck or caught by workplace equipment.

EXAMPLES OF HAZARDOUS ENERGY

THERMAL

» Standing at the end of a pipe that is being steamed

» Disconnecting thermal piping

PNEUMATIC

» Opening valves to release pressured gas such as air, nitrogen, steam or natural gas where the discharge vent is located next to the worker

» Viewing sand levels through the thief hatch during pneumatic in-loading of proppant

» Removing a stuck pig from a pipeline

HYDRAULIC

» Working around worn or damaged hose and piping

» Passing your hand over a hydraulic line to feel for leaks

MECHANICAL

» Standing next to drilling catwalk and V-door areas when pipe is being moved

» Standing in front of moving equipment to direct traffic

ELECTRICAL

» Working on equipment that has not been de-energized

» Standing on equipment during a lightning storm

» Standing directly in front of a panel when activating a breaker

CHEMICAL

» Opening thief hatches on production storage tanks

» Working in potentially flammable atmospheres (greater than 20% LEL)

NUCLEAR

» Working down line of non-destructive x-ray testing

» Working around nuclear gauges

GRAVITATIONAL

» Standing beneath suspended loads or where unsecured tools and equipment are used

» Standing down line of a tree about to be felled on a seismic line

THE WORKER SHOULD:

» **Conduct a hazard assessment and include line of fire hazards**

» **Bring line of fire hazards to the attention of your supervisor**

» **Be mindful of body position and what's going on around you i.e. adjacent line of fire hazards**

» **Be aware of equipment and work situations, especially where stored energy may be present**

» **Stop the work when existing controls are not adequate to mitigate the risk**

THE EMPLOYER/SUPERVISOR SHOULD:

» **Assess work situations where a line of fire may be present and determine what controls can mitigate the risk**

» **Ensure workers include line of fire hazards in their risk assessments**

» **Seek engineering support for those situations that cannot be effectively mitigated (i.e. equipment design and human factors)**

» **Consider both line of fire and human factors in design reviews, Hazops, etc.**

ASK YOURSELF: Am I putting myself or others in the line of fire while I complete this work?

For more information, please visit **EnergySafetyCanada.com**

PRESENT LIKE A PRO

ENERGY SAFETY CANADA

BEFORE YOU BEGIN

- ☑ Review this material before you present it and make sure you understand the material and how the topic can be applied.
- ☑ Anticipate any questions or concerns your audience might have regarding the topic. Be prepared to address them with an answer or discussion.
- ☑ If you can't answer their question, let them know you will find the information and get back to them. Make sure you follow up.

PRESENTATION TIPS

- ☑ Consider the audience you are speaking to and their experience with the topic.
- ☑ It is important for your audience to understand the topic, why it is important and how it applies to their work.

ENGAGE YOUR AUDIENCE

- ☑ During the presentation, guide your participants to interact with you as much as possible.
- ☑ Here are some example questions to engage your audience:
  1. Have you ever uncoupled a pressurized hose?
  2. When was the last time you worked around moving equipment?
  3. What types of line of fire hazards have you identified in the past?
  4. Can you think of any additional examples where line of fire may be a hazard?

CHALLENGE YOUR GROUP

- ☑ Challenge your group to find line of fire hazards in the work they are doing today. See if they can find combinations for line of fire hazards as well.
- ☑ Discuss possible line of fire in concurrent work site operations.

NOTES