SAFETY BULLETIN #9

September 26, 2024

Confined Spaces - Part 2

Permit Required Confined Spaces

- ★ *Recap: OSHA defines a confined space as any space meeting these 3 requirements: 1) is large enough for a worker to enter it, 2) has limited means of entry or exit, & 3) is not designed for continuous occupancy*
- ★ *A confined space may also be a **permit-required** confined space if it has:*
  - *The potential for a hazardous atmosphere,*
  - *The potential for engulfment or suffocation,*
  - *A layout that might trap a worker through converging walls or sloped/tapered floor,*
  - *Or any other serious safety or health hazard (toxic vapors, lack of oxygen, drowning, etc)*

Safe Entry Requirements for Permit Required Confined Spaces

- ★ Before entering a permit required confined space, the Division Lead & Project Lead will:
  - Complete a hazard assessment to identify sequence of work, list specific hazards known or anticipated, and implement control measures to eliminate or reduce the hazards. **No entry will be permitted until the hazard assessment has been reviewed and discussed by all persons engaged in the activity.**
  - Test the air in the space before (and during entry) for oxygen levels and flammable or toxic substances. **Do not enter a space if results are outside of the acceptable limits.**
  - Establish a safety barrier around the site. This is to prevent accidental falls into the space and to protect employees who enter the space from objects falling on them from above.
  - Identify the trained individuals for attendant, entrant, and rescues/retrievals.
- ★ When working in manholes, all individuals entering a permit required confined space must wear a harness. The harness will be attached at all times to an appropriate extraction tool allowing for retrieval without requiring other individuals to enter the confined space.
- ★ Rescue and retrieval attempts shall be by trained personnel. More than 60% of confined space fatalities occur among would-be rescuers:
  - In 2022, two **Arkansas** construction workers were found dead inside a newly installed sewer manhole. The two men were grouting inside the manhole to prepare for manhole pressure testing. They passed out from lack of oxygen.
  - In 2017, a pipe layer entered the manhole and quickly became unresponsive. A laborer entered the hole and attempted to rescue the first guy. After the second guy also became unresponsive, the equipment operator followed to help his fallen coworkers. All three men died. Post-incident atmospheric testing revealed lethal levels of hydrogen sulfide and carbon monoxide.
  - In 2023, three Kentucky workers were doing a confined space entry at a sewage pump station. Elevated sewage level pressure caused a pipe plug to pop. The workers were engulfed in sewer water and two of the workers were killed.

- ★ For additional information, please refer to the “Confined Space Program” section of the Steep Creek Safety Plan.

Discussion Points:

- ★ Review the picture below.
- ★ Is this a permit required confined space?
- ★ Identify at least 2 correct steps being taken for entry into the confined space.
  1.) …
  2.) …
- ★ What else needs to be done prior to his entry?

