Working in Confined Spaces

Introduction:

A confined space is an enclosed or partially enclosed area that has restricted entry and exit, and is not intended for continuous occupancy. A specific feature of a confined space is that it is large enough to allow an employee to enter to perform work. Some examples of confined spaces include: crawl spaces, manholes, tanks, elevator shafts, pits, vaults, and ditches. Confined spaces fall into two categories: permit-required and non-permit. Permit-required confined spaces must have signs posted that state “Enter by Permit Only”. Many confined spaces contain potentially hazardous conditions. Hazards must be identified and eliminated before entry into the confined space. These hazards may include: poor air quality, toxic gases, explosives, flammables, and structural, electrical, noise, heat, cold, vibration, or physical hazards.

Discussion Points:

- What are Confined Spaces?
- Hazards of Confined Spaces
- Safety Precautions
- Responsibilities of Employer and Employees

Discussion:

Potential risks resulting in accidents involving confined spaces are numerous and often involve serious injuries or fatalities. Many fatalities involve would-be rescuers or occur in spaces that have been tested and found to be safe to enter. Employees are required to receive appropriate training prior to working in any confined space. Personal Protective Equipment (PPE) is required to enter a confined space. The general PPE required for all workers includes: hard hat, eye protection with side shields, heavy-duty leather gloves, protective footwear, appropriate clothing, full-body harness, and respiratory protection as necessary for the conditions. In addition to PPE, other equipment that may be required for safe entry into a permit-required confined space include: testing, monitoring, ventilating, lighting, and communication equipment. OSHA requires attached entries using a rescue line and winch system, when possible, with an attendant outside, and a trained rescue team in more complicated entries.

Pre-planning is important, and should include employers and employees reviewing entry procedures, and covering specific hazards. In order to help maximize safety for workers in confined spaces, there are safety procedures to follow prior to entry. OSHA requires a signed permit for entry into any confined space with hazards. The permit should document three steps taken to safely enter the space: Identification and recognition of hazards in confined spaces, evaluation of hazards using methods such as atmospheric monitoring, and control and elimination of hazards using methods such as locking out equipment in the space, and ventilation of the space to remove atmospheric hazards prior to entry.

Before work begins in confined spaces, employers are required to have an emergency rescue plan, a list of required equipment, and required permits at the worksite.

As always, stay safe out there!