Many Cornell University facilities and utilities infrastructures contain confined spaces where entry may be necessary to perform repairs, inspection and maintenance. Examples of confined spaces include manholes, storage tanks, boilers, vaults and pipelines. Confined spaces may present a hazard to entrants and safe entry procedures and practices must be strictly adhered to ensure safe entry. All entry into confined spaces must be in accordance with the University Confined Space Program.

**Confined Spaces**
A space must meet all of the following criteria to be considered a confined space:

- A space that is large enough to bodily enter
- A space that has limited means of entry or exit
- A space not designed for continuous employee occupancy

**Confined Space Hazards**

- **Atmospheric Hazards**
  - Oxygen concentration below 19.5% or above 23.5%, Flammable gas greater than 10% of the Lower Explosive Limit (LEL), Atmospheres exceeding the OSHA Permissible Exposure Limit (PEL), Airborne combustible dust that obscures vision at 5ft. or less.

- **Configuration Hazards**
  - Internal configurations that could entrap or asphyxiate an entrant by inwardly converging walls or floors that taper to a smaller cross-section. Example: hoppers, bins and tanks

- **Engulfment Hazards**
  - Where there is a potential for a liquid or solid material to drown, capture or asphyxiate an entrant. Examples include water, grains and soils.

- **Other Hazards**
  - Other hazards may include electrical hazards, mechanical hazards, chemical hazards, steam hazards, extreme temperatures, slippery floors, poor and noise.

**Confined Space Entry Procedures**

- All personnel involved with the entry must have received confined space training within the last 3 years covering confined space hazards, employee responsibilities, confined space safety equipment and safe entry procedures.
- Prior to entry, **the space must be assessed for all real and potential hazards** and the applicable permit must be completed.
- Eliminate all hazards prior to entry when feasible. Utilize Lock/Tag/Verify procedures when required.
- Complete and record pre-entry air quality measurements. **Continuously** monitor the space during entry.
- Obtain and set up all safety equipment including air monitors, barricades, and ventilation equipment when required.
- Utilize a trained **Attendant**.
- Entrants must wear a **body harness for underground entries**.
- **Inspection Activities** – brief entries where no physical work is performed or tools are utilized. An initial hazard assessment must be conducted. If no hazards are identified, entry may be made without an attendant or body harness.
- Contact EH&S at 255-8200 if the hazards within the space cannot be eliminated prior to entry and the entrant cannot be connected to retrieval equipment due to the configuration of the space.
- All completed entry permits must be returned to dso1@cornell.edu or mailed to Occupational Safety and Health, 395 Pine Tree Rd., Suite 210

Please return sign-in sheet to Environmental Health & Safety for recordkeeping.
Toolbox Safety Talk
Confined Spaces

Date: __________ Start Time: __________ End Time: __________

Location: ______________________________________________________

Presenter Name: ________________________________________________

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Environmental Health & Safety
Facilities Safety & Health Section
395 Pine Tree Rd. Suite 210
Ithaca, NY 14850
607.255.8200

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v. 4/6/11
Toolbox Safety Talk

Confined Spaces

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