A confined space…

1) Has limited means of entry or exit 2) is large enough for someone to enter and work, and 3) is not designed for human occupancy

Entry into confined spaces requires additional EH&S training

**Confined Space Hazards**

- **Silo**
  - Toxic gases, unloader
- **Grain Bin**
  - Dust, unload auger, grain engulfment, low oxygen
- **Manure pit/tank**
  - Toxic gases (methane, hydrogen sulfide, ammonia), drowning
- **Well pit or water tank**
  - Drowning, electric shock, slip and fall, low oxygen

**Permit-Required vs. Non-Permit Confined Spaces**

- Permit-required spaces contain a hazardous atmosphere, engulfment hazard, entrapment hazard, or other serious safety hazard
  - Permits must be filled out prior to entry and retained for one year
- Non-permit spaces do not contain the above hazards at the time of entry. However, hazards still need to be evaluated before entry.

**How to prevent injury**

- Communicate with all affected workers before and during entry
- Follow lockout/tagout (LOTO) procedures until work is complete
- Have an entry attendant present at all times
  - Entry attendant remains outside of the space to monitor entrant
- Monitor hazards throughout entire procedure
  - Four gas monitors should be used to detect toxic gases or low oxygen that result in the majority of confined space entry deaths
- Entrant must exit immediately if conditions change, hazards are present, or any exposure symptoms arise

**Additional Resources**

- [Click here](#) for the ISU EH&S Confined Spaces manual