Addressing Manure System Hazards and OSHA Compliance

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Today’s Discussion

- In fine print – worker safety regulations
- Fast facts – confined spaces
- Hazard assessment of manure storage and handling facilities
- Your questions and comments
Caution
If you think OSHA is a town in Wisconsin, your safety program is in trouble.
OSHA? Who? What? How?

1. Occupational Safety and Health Act signed by President Nixon, 1970.
2. Created Occupational Safety and Health Administration (OSHA) to protect workers and create safe workplaces.
3. Part of Department of Labor
4. Annually, federal appropriation rider to limit impact on small businesses (10 or fewer employees)
OSHA Mission

To assure so far as possible every working man and women in this nation a safe and healthful working conditions.
A farming operation is **exempt** from all OSHA activities if it:

- Employs 10 or fewer employees currently and **at all times** during the last 12 months; and
- Has not had an active temporary labor camp during the proceeding 12 months.

**Family members are not counted as employees.**

**A request has been made to clarify family member relationships.**
Section 5(a)(1) of the Act

"...that each employer shall furnish...employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

Applies when there is no specific standard
What standards apply to agriculture?

29 CFR 1928: Agriculture

29 CFR 1910: General Industry: As Referenced

General Duty Clause – Section 5(a)(1)

CFR = Code of Federal Regulations
How do these standards apply to my manure storage and handling system?
OSHA Common Hazards

- Toxic Substances/Airborne Dusts
- Electrical
- Fall
- Hazardous Waste / Hazardous chemicals
- Fire and Explosion
- Dangerous Atmospheres
- Machine Guarding
- Confined Space
- Lockout – Unexpected Energy Release
- Noise
Review of Practices and Recommendations for Wisconsin Livestock Farms

Download report at:

UWEX site: http://fyi.uwex.edu/agsafety


NRCS site: http://www wi nrcs usda gov/technical/enghome asp
What is a confined space?

A confined space is a space that:

1. Is large enough and so configured that a person can bodily enter and perform assigned work;
2. Has limited or restricted means for entry or exit;
3. Is not designed for someone to continually be in it;
What is a permit required space?

1. Contains or has a potential to contain a hazardous atmosphere;
2. a material that has the potential for engulfing an entrant;
What is a permit required space?

3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section, or

4. Contains any other recognized serious safety or health hazard.
OSHA 29 C.F.R 1910.146

It requires facilities to:

- Compile **a written program** that identifies confined spaces that may pose hazards to employees and spell out implementation procedures;
- **Train** all affected employees;
- **Post** any space determined to be a confined space under the standard, and
- **Retain** record and review programs annually.
At what point does “entry” occur?

Entry occurs as soon as any part of the body breaks the plane of an opening into the space.
Pre-Entry

1. Assess the need to enter the confined space
2. Contact the supervisor for to request a written permit for entry
3. Lockout/Tagout per procedures
4. Monitor for gases, hazardous situations
5. Ventilate the confined space
Manure Gases

- Methane
- Carbon Dioxide
- Ammonia
- Hydrogen Sulfide
Other dangers

- Electrical
- Falls from ladders
- Augers
- Hot/cold
- Working alone
Why monitor?

1. There may not be enough oxygen present in the confined space for you to breathe.
2. Poisonous gases may be present and not safe for you to breathe.
Ventilation

- Powered fresh air supply
  (7 air exchanges)
- A place for exhaust ventilation
- Explosion-proof equipment
- At least 5 ft between confined space opening and gasoline powered blower

Monitoring and Ventilation can reduce risk of confined space entry by 80%
Entry

- Permit issued
- Wear lifeline and body harness
- PPE
  - Respirator - SCBA
  - Gloves
  - Boots
- Have an attendant
- Keep monitoring- any changes – GET OUT!
Entry-attendant

- Reads the permit.
- Knows emergency reporting procedures and who to call.
- Keeps in constant touch with the authorized attendant.
- Knows hazards present and symptoms of exposure.
- Ready to order evacuation.
Rescue

- Over 50% of confined space fatalities were individuals who went into rescue someone.
- Rescue is to occur within 15 minutes.
- Requires 4-6 individuals
If someone is down ...

Think

Call 911

Don’t go in
Manure System Hazards
Drive-In Tunnel/Channel
Adequate Ventilation ??
Action Steps

1. Remove the hazards
2. Safe guard technology
3. Warning Signs
4. Train and Instruct
5. PPE
Be Aware of Your Surroundings