Confined Space Entry Program Management

Wood Pellet Safety Conference

Prince George, BC

June 15, 2016

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- Who am I
  - Peter Leitch: BSc (chem); CIH
  - Involved in Occupational Health and Safety since 1986
  - Forest Products Manufacturing – Primarily Pulp and Paper, some sawmills MacBlo/Pacifica/Norske/Catalyst
  - Specialist in Occupational Hygiene – Confined Space was a major focus
  - Very involved in facility auditing (HSE)
  - Participated in WCB Regulation Review in 1990s. Co-authoured industry submissions on several sections, including Confined Space Regulations
  - Retired injury free in 2014

I hope that by the time we adjourn participants will understand:

- **The requirements of a CSE Program in real language. (what the hell are you talking about)**
- **How Pellet Manufacturing Facilities can develop a program without breaking the bank**
- **Confined Space Risk Assessments**
- **How procedures are developed**
- **How to Consult with Consultants**

1. Brief historical perspective (evolution of CSE procedures)
2. CSE Programs
   - What is a CSE program?
   - Do I need one?
   - What are the program elements
3. Risk Assessments
4. Procedures
5. Discussion: Developing Risk Assessments and Procedures

In the good old days:

- Ad-Hoc procedures based on “local customs”
- Regulations were incomplete
  - definition was not definitive (2 criteria – lots of inconsistency (boilers)
- Workers died … the same mistakes over and over again
  - Asphyxiation (gas testing/ventilation)
  - Explosion/Fire (gas testing/ventilation)
  - Engulfed or Tangled up in machinery (lock out)
  - Failed rescue attempt (usually more people than the initial victims)

WCB/Industry/Government Regulation review in the 1990s ushers in the RISK ASSESSMENT era

Do I need a Confined Space Program?

- If there are confined spaces in your facility you need a confined space program – even if you hire contractors for all entries.

My guess is that everyone in this room needs to have a Confined Space Program

WSBC Regulations and Guidelines Section 9 contains 51 clauses that provides guidance.

Start with a document that assigns responsibilities to, and vests authority in, those who will ensure consistent application of safe work procedures for confined space entry in the facility.

I recommend referring to positions – not people

eg. Maintenance Supervisor … not Bob

Build a program step by step

STEP 1: Assign responsibilities/authorities for the program … for example

- **General Manager** has overall responsibility/authority

- **Maintenance Supervisor**:
  - ensures risk assessments are done and procedures are developed.
  - assigns responsibilities for each confined space entry (puts people in charge of the job tasks)
  - ensures that confined space equipment is maintained (fans, harnesses, etc)

- **Head electrician** ensures that gas monitoring equipment is maintained

- **Administrative assistant** ensures procedures and program documents are kept current and arranges training based on direction from the Manager and Supervisor.

A one pager that describes how things are done around here

STEP 2: Identify Confined Spaces (WSBC Reg 9.1)

and ask yourself.

Is there ever going to be a reason for anyone to go inside the space ?

if no - then note it, put a sign on it … and move on

if yes - then note it, sign it and list the most likely tasks

(inspection, cleaning, repair)

STEP 3: Conduct a Risk Assessment for the most likely tasks.

STEP 4: Develop procedures based on the risk assessment.

Make note of procedure limitations – supplementary procedures for tasks outside the scope of the risk assessment.

STEP 5: Dot the I's – Cross the T's.

Documents are organized and easily accessed by employees

- **Responsibilities**
- **List of Confined Spaces**
- **Risk Assessments, Procedures, Permits**
- **Training Records (includes course synopsis)**
- **Safety Equipment Maintenance and calibration records**

Make sure to shore up other programs; specifically Lock Out and Respiratory Protection.

Other Considerations:

- Gas Monitoring and Ventilation
- Training Levels:
  - Awareness level, working level, technician/administrator level
- Attendant Worker
- Rescue
- Getting the help you need (consulting)

A Few Points.

The difference between hazard and risk

What level of risk is acceptable

With respect to Confined Spaces risk assessments …

WHO IS QUALIFIED and HOW DOES ONE GET QUALIFIED ?
(don't underestimate the collective knowledge of your workforce)

Making effective use of consultants

- **clearly define the scope of work and assign someone to work closely with them**

DEVELOP RISK ASSESSMENTS AND PROCEDURES

- **Basic vessel information:**
  - Materials of construction
  - Geometry
  - Use and contents
  - Inputs/outputs
  - Temperature and pressure

- **Define the scope of work intended for the Risk Assessment**
  - Generally inspection, cleaning and repair

Identify the hazards

- Develop of systematic method of identifying hazards
- A checklist of some kind is essential
- Brainstorm with employees – get several perspective from the workers

Consider one particular methodology which looks at sources of energy:

- **Electrical**
- **Mechanical**
  - Struck by, strike against, potential/kinetic, ergonomics
- **Chemical**
  - Solid, liquid, gas
- **Fire**
- **Radiation**
  - Heat, cold, uv, x-ray, gamma

It is important to identify ALL the hazards … then evaluate the risk

Alternately a comprehensive checklist can be developed which lists all known hazards in these sections.

1. **atmospheric hazards**
2. **configuration hazards**
3. **material and equipment hazards**
4. **hazards created by work activities**
5. **external hazards**

Developing the checklist with a group of employees can be a valuable training exercise

Develop procedures based on the risk assessment

- **Step-by-step instructions that reduces the risk of each hazard identified. Often in the form of a PERMIT**
- **Rescue considerations**
- **If the task is outside the scope of the risk assessment then it must be revised and supplementary procedures added**
- **If processes or equipment changes the assessments must be reviewed and revised.**

FINAL THOUGHTS