PERMIT-REQUIRED CONFINED SPACE PROGRAM

NOTE: *This Recommended Industry Safety Practice (RISP) is intended solely as an introduction and guide to an OSHA mandated Permit Required Confined Space Program. Individual companies must evaluate the specifics of their own facilities and incorporate the elements of this RISP as necessary to ensure the safest possible confined space entry conditions. This RISP should not be interpreted as a comprehensive guide to all confined spaces, and should not be considered a substitute for site-specific procedures and training.*

The first consideration for all employers is: 1910.146(c)(1) The employer shall evaluate the workplace to determine if any spaces are permit-required confined spaces.

The OSHA Decision-tree Flowchart can serve as a useful tool to help your company determine which best methods and practices work for you. As always, there may be additional state or even local considerations.

The employer shall evaluate the workplace to determine if any spaces are permit-required confined spaces. **1910.146(c)(1)**

Definitions:

"Confined space" means a space that:
(1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and
(2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
(3) Is not designed for continuous employee occupancy.

"Non-permit confined space" means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

"Permit-required confined space (permit space)" means a confined space that has **one** or more of the following characteristics:
(1) Contains or has a potential to contain a hazardous atmosphere;
(2) Contains a material that has the potential for engulfing an entrant;
(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.

"Permit-required confined space program (permit space program)" means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

IDENTIFICATION OF CONFINED SPACES

Examples of Potential Confined Spaces:

The following list is designated to aide in identifying confined spaces which may be found in a recycling facility. Confined spaces should not be limited to this list and should be considered permit required until proven otherwise.

Automobile crushers
Bag house
Baler/hopper pits
Barges(for scrapping or loading)
Compactors
Conveyor pits
Cyclones
Free standing shears
Manholes
Oil/water septic systems
Scale pits
Sewers
Shredder mills
Silos
Storm water collection pits
Tanks/tank cars
Trucks

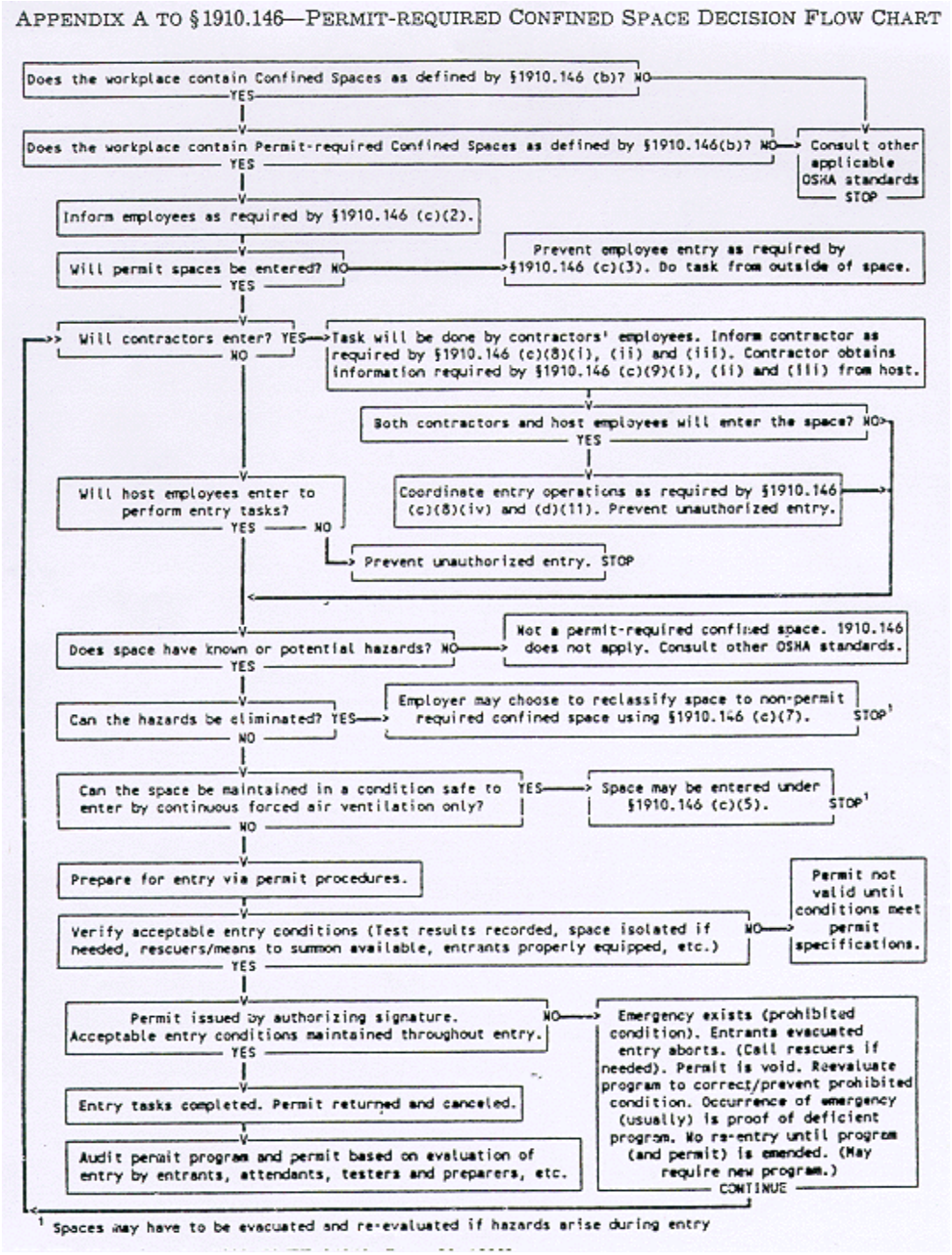
Potential Hazards:

Note that operations performed in spaces classified as non-permit required confined spaces (e.g., welding, cutting, use of solvents or gasoline engines) can introduce hazards that would cause the space to be requalified as a permit-required confined space.

Atmospheric – oxygen, flammable/explosive, toxic
Engulfment
Entrapment
Fall hazard
Fire
Changing atmosphere – oxygen, flammable, toxic
Falling material from conveyors
Dust/Combustible Dust
Aerosolized particles
Electric shock
Moving hydraulic parts
Noise
Pinch points
Slippery walking/working surfaces
Jagged edges on finished product
Mobile equipment traffic

FLOW CHART – DECISION-TREE

Appendix A to §1910.146 -- Permit-Required Confined Space Decision Flow Chart



Protective Equipment:

4 gas meter (and means or method to test for any other potential atmospheric hazard, ie methane)
Hard hats as needed
Safety glasses as needed
Steel toe/steel shank work boots
Gloves as needed
Hearing protection as needed
Gloves as needed
Respirator as needed
Communication equipment
Lighting (may need to be non-explosive)
Air Blowers if needed (forced ventilation -(may need to be non-explosive))
Retrieval and Rescue equipment including anchorage, body wear (harness) & connector; retrieval systems, personnel hoists, SCBA, and other specialized equipment.

SAMPLE ENTRY PERMIT FORM – SEE ATTACHMENT 1

ADDITIONAL CONSIDERATIONS

If employees **are** to enter permit required confined spaces, additional considerations include:

1.CLASSIFICATION OF EMPLOYEES:

Authorized entrants, Attendants, and Entry supervisors.

2. TRAINING REQUIREMENTS:

Provide training so that all employees have the necessary understanding, skills, and knowledge to perform the job safely. This includes training for: Authorized entrants, Attendants, and Entry supervisors. Training certification must include the employee's name, the signature or initials of the trainer, and the dates of training.

REFRESHER TRAINING - Provide refresher training whenever an employee's duties change, hazards in the confined space change, or an evaluation of the confined space entry program identifies inadequacies in the employee's knowledge. Refresher training must also be certified.

3. RESCUE and EMERGENCY SERVICES:

"OSHA (See 1910.146 Non-Mandatory Appendix F -- Rescue Team or Rescue Service Evaluation Criteria) believes that compliance with all the provisions of §1910.146 will enable employers to conduct permit space operations without recourse to rescue services in nearly all cases. However, experience indicates that circumstances will arise where entrants will need to be rescued from permit spaces. It is therefore important for employers to select rescue services or teams, either on-site or off-site, that are equipped

and capable of minimizing harm to both entrants and rescuers if the need arises."

Sample policy for internal rescue plan:

Our company utilizes its own employees to perform rescue services in the event of a permit space emergency. This group of employees has been trained, at a minimum, to:

- Perform the assigned rescue duties;
- Correctly use personal protective equipment (PPE) required for the job;
- Establish proficiency as an authorized entrant, as provided by 1910.146(g) and (h); and
- Perform basic first-aid and cardiopulmonary resuscitation (CPR).

Our company also ensures that at least one member of the rescue team holds a current certification in first-aid and CPR, and that affected employees practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces will, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

_____ conducts our rescue and emergency training. The following designated persons currently make up our emergency rescue team _____.

Contractors

When contractors enter a confined space, your company must ensure that the contractor utilizes an effective confines space entry program. Furthermore, your company must inform the contractor of the known hazards of the space, and likewise require them to inform your company of any new hazards that are discovered during the course of their operations.

ATTACHMENT 1

Confined Space Entry Permit – VALID FOR 8 HOURS ONLY

Date and Time Issued: _____ Date and Time Expires: _____
Job site/Space I.D.: _____ Job Supervisor:_____
Equipment to be worked on: _____ Work to be performed: _____

Stand-by personnel: _____ _____ _____

1. Atmospheric Checks: Time _____
   Oxygen _____%
   Explosive _____% L.F.L.
   Toxic _____PPM

2. Tester's signature: _____

3. Source isolation (No Entry):

	N/A	Yes	No
Pumps or lines blinded,	( )	( )	( )
disconnected, or blocked	( )	( )	( )

4. Ventilation Modification:

	N/A	Yes	No
Mechanical	( )	( )	( )
Natural Ventilation only	( )	( )	( )

5. Atmospheric check after isolation and Ventilation:
   Oxygen _____% (IDLH at <19.5% or >23%)
   Explosive _____% L.F.L (maximum of 10%)
   Toxic _____PPM
   Time _____
   Testers signature: _____

6. Communication procedures: _____

_____

7. Rescue procedures: _____

_____

_____

_____

8. Entry, standby, and back up persons:	Yes	No
Successfully completed required training?	( )	( )
Is it current?	( )	( )

9. Equipment:	N/A	Yes	No
Direct reading gas monitor - tested	( )	( )	( )
Safety harnesses and lifelines for entry and standby persons	( )	( )	( )
Hoisting equipment	( )	( )	( )
Powered communications	( )	( )	( )
SCBA's for entry and standby persons	( )	( )	( )
	N/A	Yes	No
Protective Clothing	( )	( )	( )
All electric equipment listed Class I, Division I, Group D and Non-sparking tools	( )	( )	( )

10. Periodic atmospheric tests:

Oxygen	____%	Time ____	Oxygen	____%	Time ____
Oxygen	____%	Time ____	Oxygen	____%	Time ____
Explosive	____%	Time ____	Explosive	____%	Time ____
Explosive	____%	Time ____	Explosive	____%	Time ____
Toxic	____%	Time ____	Toxic	____%	Time ____

Toxic ____% Time ____ Toxic ____% Time ____

We have reviewed the work authorized by this permit and the information contained here-in. Written instructions and safety procedures have been received and are understood.

Entry cannot be approved if any squares are marked in the "No" column.

This permit is not valid unless all appropriate items are completed.

Signatures

Permit Prepared By: _____

Approved By: _____

Reviewed By: _____

This permit to be kept at job site. Return job site copy to Safety Office following job completion.