

Confined Space Entry

What is the hazard?

Employees must sometimes enter awkward or “confined” spaces to conduct inspection or repair of equipment or to work on utilities. These spaces could be underground, have small entry openings, contain pipes or equipment that get in the way, etc. A confined space is more difficult to enter and exit and is not designed for continuous human occupancy. The real problem occurs when there is an additional hazard in one of these spaces, in particular a problem with the air such as not enough oxygen or a chemical contaminant. In the case of not enough oxygen, the employee could quickly become unconscious. Because of the awkward nature of the space, it is extremely difficult to get the employee out to safety.

Do you have employees exposed to this hazard?

Examples: Entering a boiler to inspect it, entering a manhole for utility work, entering a storage tank for cleaning (including underground storage tanks), entering vaults, etc, at water and wastewater treatment facilities.

Level of Employee Exposure

YES / NO

If you answered NO, you never have any employees exposed to this hazard, you have completed this hazard assessment tool.

If you answered YES, please complete the table below and continue on with the remainder of this hazard assessment tool.

List the tasks that expose your employees to this hazard, estimate the number of employees conducting each task, and the estimated frequency that each task is conducted (both per employee and also for the agency overall (e.g., how many times per day/week/month or year)).

1. Describe task that exposes employees to this hazard	2. How often, on average, would an individual employee conduct this task? (list either times per week, per month, or per year, whichever best applies).	3. How many employees do you have who conduct this task?	4. Multiply the answer for #2 by the answer for #3 to get a total exposure for your employees.
<i>Example: Clean boiler interiors</i>	<i>1 time per year</i>	<i>2 employees</i>	<i>2 times per year</i>
Total of all #4 rows:			

Use of Technical Standard / Regulation / Guideline

What regulation or standard do you follow to protect employees from this hazard, if any?

Upper Management Support / Policy / Full Hierarchy Accountability

Is there a written policy/program on this hazard?

Who is in charge of ensuring that employees are kept safe from this hazard? A) At the senior management level. B) During day-to-day operations.

How does the agency ensure that the regulation or policy relative to this hazard is followed by all employees?

Training / Certification

What training have employees received relative to this hazard?

Is this a one-time training?

If no, how often does re-training occur?

When are new employees trained?

Please provide general information on training content.

CONTROLS

Controls - Administrative

Have you identified all of your confined spaces?

Do you have a written plan for entry into any of your specific confined spaces?

Are permits used prior to employees entering any confined spaces?

If yes, what is the criteria to determine which spaces are permit-required?

Have you put signs on all of your permit-required confined spaces where feasible, identifying them and limiting entry?

For permit-required confined spaces, do you ever take steps to eliminate the hazard, such as by ventilating the space, prior to employee entry so that it is no longer a permit-required confined space? Please describe any spaces for which you use this method.

Do you have a policy relative to how many employees are required for a confined space entry?

How many of these employees remain outside the space to monitor and perform rescue?

What are the criteria for the confined space dictating the required number of employees?

Have you evaluated methods to eliminate the need for an employee to enter each of your confined spaces? (e.g., use of remote cameras, moving valves and other equipment outside of the space).

Controls - Safety Equipment - Have

What safety equipment do you have for this hazard?

What condition is it in?

How often is it inspected?

Were employees trained in its use and maintenance?

Is it labeled with any "approval" designation?

How was this equipment selected?

Are there manufacturer's instruction for use?

Do you still have these instructions?

Are they followed?

Typical safety equipment for confined space entry would include: emergency personnel retrieval system (tripod, winch, harness), air monitoring equipment such as a 4-gas monitor (typically oxygen, hydrogen sulfide, carbon monoxide, flammables).

If an air monitor is used, how often is it fully calibrated?

Is field calibration also performed before each use?

Do you have the all the correct types of confined space entry safety equipment you need to cover all the types and configurations of confined spaces you have?

Do you have enough of this equipment to cover all active worksites, given that there may be multiple jobs going at the same time?

Controls - Safety Equipment - Use

How is it determined when this safety equipment should be used?

By regulation or standard?

By your written policy?

By specific criteria?

Always use for certain tasks?

Case-by-case or field determination?

There is no method for determining when safety equipment is used.

When safety equipment is supposed to be used, how frequently is it actually used?

Always mostly half-the-time sometimes never

Controls - Personal Protective Equipment - Have

What personal protective equipment do you have for this hazard?

What condition is it in?

How often is it inspected?

Is it shared or individually assigned to employees?

Were employees trained in its use and maintenance?

Is it labeled with an ANSI number or Class or other "approval" designation?

How was this equipment selected and by who?

How often is it replaced? How is this determined?

For confined space entry, do you have the all the correct types of personal protective equipment you need to cover all the types of work sites or work tasks you have?

Do you have enough of this personal protective equipment for all of the employees who need to use it at the same time?

Controls - Personal Protective Equipment - Use

How is it determined when personal protective equipment should be used?

By regulation or standard?

By your written policy?

By specific criteria?

Always use for certain tasks?

Case-by-case or field determination?

There is no method for determining when personal protective equipment is used.

When personal protective equipment is supposed to be used, how frequently is it actually used?

Always mostly half-the-time sometimes never

Do employees wear respirators in any of your confined spaces?

If yes, answer the following questions in addition to the PPE questions above.

Do you have any type of formal and/or written respiratory protection program? If yes, please describe.

Are employees medically screened for their ability to tolerate a respirator prior to respirator use?

Are employees fit-tested with the respirators prior to respirator use?

Is there a plan in place to respond to an accident or emergency with this hazard?

Are you relying on outside responders or do you have an internal response team?

If you are relying on outside responders, have they been made aware of the (name) hazards at your facility?

Do you know if they are trained and equipped to respond to this type of emergency?

If you plan to use internal responders, what type of training did internal responders receive?

Has the emergency response plan for this hazard been tested with a drill?

Emergency Response Planning

Is there a plan in place to respond to an accident or emergency with this hazard?

Are you relying on outside responders or do you have an internal response team?

If you are relying on outside responders, have they been made aware of the (name) hazards at your facility?

Do you know if they are trained and equipped to respond to this type of emergency?

If you plan to use internal responders, what type of training did internal responders receive?

Has the emergency response plan for this hazard been tested with a drill?

Concerns / Near Misses / Accidents

Is there a designated person to whom employees go with complaints or concerns about this hazard?

Is there a formal reporting procedure for near misses (narrowly avoided accidents)?

Is there a formal reporting procedure for accidents/injuries/illnesses with this hazard?

Have you had any accidents or near misses with this hazard? Please give an estimated date and brief description.

Prevention

In the "Level of Employee Exposure" section, you identified tasks that expose employees to the hazard assessed in this tool.

Can you identify any ways that would eliminate or reduce employee exposure to this hazard?

For example, can you eliminate the hazardous task?

Modify the hazardous task?

Use a tool instead to eliminate the need for the employee to enter the hazardous area?

Do the task remotely, for example with cameras?

What would be needed to implement these preventive measures?

Other / Comments / Anything You Want to Add

Are there any other specific controls to protect employees from this hazard?

Any other general comments:

IF YOU HAVE QUESTIONS OR NEED ASSISTANCE WITH THIS DOCUMENT,
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