



OREGON DEPARTMENT OF FISH AND WILDLIFE POLICY

Human Resources Division

Title:	Confined Space Entry: Hatcheries and Wildlife Areas	HR_480_09
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Applicability:	All employees and contract service providers	
Reference:	OAR 437, Division 2, Subdivision J, 1910.146	
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I. PURPOSE

The purpose of this policy is to establish confined space entry standards for all ODFW employees and contractors at ODFW agricultural, general industry, construction sites, or other like sites under the control of ODFW.

II. DEFINITIONS

- A. **Confined space:** An area that (1) is large enough that an employee can enter and perform assigned work, and (2) that has limited openings for entry and exit, and (3) is not designed for continuous worker occupancy. Examples of such confined spaces include, but are not limited to, storage tanks, pits, weirs, permanent fish traps, irrigation sumps, tunnels, tanks on liberation trucks storage bins, sumps, sewers, septic tanks and excavations.
- B. **Permit-required confined space hazards:** A confined space that has one or more of the following characteristics: (1) contains or may contain a hazardous atmosphere; or (2) contains a material that has the potential to engulf an entrant; or (3) may trap or asphyxiate an entrant; or (4) contains any other recognized serious safety or health hazard.
- C. **Flammable Atmosphere:** Flammable gas, vapor, or mist in excess of 10 percent of the lower flammable limit of the material in question. These are often toxic as well as flammable. Atmospheric concentrations of dust which obscure vision at a distance of five feet or less are also potentially flammable.
- D. **Oxygen Deficient Atmosphere:** Atmospheres that contain less than 19.5 percent oxygen.
- E. **Oxygen Enriched Atmosphere:** Atmospheres that contain more than 23.5 percent oxygen.
- F. **Toxic Atmosphere:** Atmospheres having concentrations of airborne chemicals in excess of permissible exposure limits (PELs) as defined by OSHA or American Congress of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs). Material Safety Data Sheets (MSDS) can provide guidance in establishing atmospheric conditions for air contaminants with no PEL.
- G. **Engulfment Hazard:** Liquid flows, standing pools of liquid presenting a drowning hazard, or loose solid materials such as wood chips, sand, gravel or sludge that could bury someone in a confined space.

- H. **Entrapment Hazards:** Someone falls into loose solid materials and suffocates due to pressure on the upper torso. Most entrapment hazards fall into one of three categories:
- a. **The “Cone Trap”** found in the bottom of cyclones and precipitators.
 - b. **The “Cylinder Trap”**- a pipe or similar opening in the bottom of a confined space, big enough for someone to fall into. The pipe up to an elevated water tower is a good example.
 3. **The “Wedge Trap”**- converging walls that could entrap someone who fell into them. They are commonly found in grain bins.
- I. **Recognized Serious Safety or Health Hazards:** These hazards could consist of moving conveyers, agitators, electric energy, zoological diseases, cut hazards, burn hazards, fall hazards and other hazards causing serious injury or death. .

III. POLICY

It is the policy of the Department of Fish and Wildlife (ODFW) to provide a safe workplace for all employees. To that end, the department shall establish confined space entry standards for all ODFW employees and contractors at ODFW agricultural, general industry facilities, construction sites or similar sites under the control of ODFW. ODFW shall enforce this policy as a means of protecting the health and safety of workers while entering, working in, and exiting confined spaces. Failure of employees to adhere to the provisions of this program may result in disciplinary action, up to and including dismissal. Before entry, the worker(s) shall be made aware of the hazards of confined space work and the safe work practices necessary.

A. Workplace Evaluation

1. Each workplace will be evaluated to determine if there are any permit-required confined spaces at the site with real or potential hazards. It is important to determine which spaces are permit-required confined spaces (permit-spaces) and which are non-hazardous confined spaces (see Definitions).
2. ODFW employees working at non-ODFW sites are still subject to this policy. If they enter permit-required confined spaces they must do so according to this policy. In addition, the host employer (i.e., the non-ODFW site manager) may also have confined space policies for work on the host sites. ODFW employees must also abide by the host employer’s policy, so long as it is as least as protective as this ODFW policy.

B. Labeling and Posting

1. At all entrances to confined spaces, signs will be posted that include the following or similar language:

Danger
Permit-Required Confined Space
Do Not Enter



2. The following statements will be added where necessary:

Respirator Required for Entry
Lifeline Required for Entry
Hot Work Permitted
Or
No Hot Work

C. Unauthorized Entry

Measures to prevent unauthorized entry include, but are not limited to, bolting of access doors, posting the spaces, and erecting temporary barriers at open spaces.

D. Hazard Identification, Evaluation and Control

All permit-space confined space hazards will be identified and controlled prior to entering the space. Measures for identifying hazards must include atmospheric testing. Control measures include isolation, lockout/tagout, and ventilation. Entrants will be protected from external hazards, such as vehicles, by the use of barriers or other means.

E. Permit-Space Confined Space Entry Equipment

1. For permit-space confined space entry the following types of equipment will be used as necessary:

- Atmospheric monitoring equipment (mandatory);
- Ventilation equipment (if needed);
- Ladders, if space is not so equipped;
- Rescue equipment (needed for that space);
- Lighting (if needed);
- Communications equipment; (if not able to hear or maintain sight of entrant.)
- Barriers and shields;
- Personal protective equipment, including respirators (if needed).
- Lanyard and safety belt/harness for entry into loose material.

2. The equipment to be used will be dependent upon the confined space on a case by case basis. Specific equipment to be used will be listed on the entry permit for that specific entry.

F. Personnel Needed for Entry

For each permit-required confined space entry (unless using the Alternate Entry Procedures described in that section of this policy), the following personnel will be necessary:

1. Authorized Entrants

The entrant(s) will be stated on the permit prior to entry. These are the only individuals who may enter the space while the permit is in effect.

2. Outside the space employee (Attendant)

During entry into permit-required confined spaces, at least one employee will be stationed outside the space to maintain constant communication with the entrant. The outside employee is not necessarily the designated rescue person and should only attempt non-entry rescues. In the event of an emergency, the employee will summon rescue personnel.

3. Entry Supervisors

Each permit-required confined space entry will have an entry supervisor who is responsible for all aspects of the entry. The entry supervisor may also be the authorized entrant or attendant for a given entry.

4. Rescue services will also be available during entry. The rescue services contact will be listed on the permit.

G. Training

1. All personnel involved in permit-required confined space entry will be trained on the hazards associated with the workspace(s). The training will be provided before the employee is assigned duties under this policy and whenever there is a change in assigned duties or a new hazard is introduced. This training will comply with OR-OSHA regulation 437-004-1250(4) and, as a minimum, cover the following:

- Hazard recognition, including symptoms of exposure to hazards;
- Proper use of personal protective equipment, respirators, and other safety equipment;
- Communication procedures;
- Emergency plan(s) for the space(s);
- Prevention of unauthorized entry;
- Air monitoring procedures;
- Performing non-entry rescue;
- Hazard control procedures including ventilation and lockout/tagout procedures.
- Properly filling out permits; and
- Termination procedures.

2. The training program will be designed so that personnel involved in permit-required confined space entry will be able to act as entrant, outside attendant or entry supervisor. Records of this training will be maintained on site. The record will consist of a roster with class title, student's printed name, signature, date/time of the training, at a minimum, the above bullet points and any other topics covered and the instructor's signature and date. The record will be entered into i-Learn by the region.

H. Space Evaluation

1. Prior to entering a confined space, the hazards of the space will be evaluated. Standard operating procedures for specific spaces will be developed.

2. As a minimum, the following steps will be followed during permit-required confined space entry activities:

- a. Calibrate the air monitoring instrument prior to any atmospheric monitoring. A competent person will calibrate the instrument. The calibration record will be recorded on the entry log.
- b. Perform initial air monitoring from outside the space.
 - 1) The appropriate instrument readings should be:
 - Oxygen between 19.5 and 23.5 percent; and
 - Combustible gases and vapors less than 10 percent of the LEL.
 - 2) Other contaminants may need to be monitored on a case-by-case basis. The above readings are considered acceptable entry conditions.
3. No entry is permitted in the space if the instrument readings are not within the above parameters. If the atmospheric concentrations of the above contaminants inside the space cannot be brought within the given parameters, then the site supervisor or his designee must be notified and the entry aborted.
4. In addition to atmospheric testing, the space should be isolated and all equipment locked and tagged out prior to entering the space. It is the duty of the entry supervisor or designates to verify that this has been accomplished.
5. The site supervisor or designate will determine how often air monitoring must be performed once entry activities have been undertaken. The results and time of the measurements will be recorded on the entry permit

I. Permit System Recordkeeping

1. The confined space entry permit used by ODFW sites where confined space entry takes place will keep a journal or log that records the following information:
 - a. Calibration of air monitor date.
 - b. Confined-space to be entered;
 - c. Date;
 - d. Work being done;
 - e. Entrant and attendant names;
 - f. Other applicable information and additional permits (i.e., hot work).
2. A copy of the ODFW confined space entry permit is provided as Attachment C.
3. All permit-required confined space entries will require a permit to be filled out prior to entering the space. These permits are valid for the duration of the job or one work shift, whichever is less. Work that carries over into a second work shift will require a new permit to be issued. Subsequent entry into a space that has had the permit canceled will also require a new permit.

J. Alternate Entry Procedures for Permit-Spaces with Potential Atmospheric Hazards Only

The hazards in some permit-confined spaces are limited to potential atmospheric hazards that can be controlled by continuous forced-air ventilation. These spaces include fully enclosed concrete headboxes. For these types of spaces, the following alternate procedures can be used for entry:

1. Prior to removing the entrance cover, eliminate any condition that may make removing the cover unsafe. Once open, barricade or guard the opening to protect people from falling into the space.
2. Perform air monitoring as described in the section on space evaluation to determine if acceptable entry conditions exist.
3. Use forced-air ventilation to control atmospheric hazards prior to employees entering the space. The forced-air ventilation will continue until all employees have left the space.
4. Note: In enclosed headboxes and other spaces where there is constant running water inducing air movement, utilizing natural ventilation is acceptable. However, air monitoring must still be done prior to employees entering the space, and the monitor should be brought into the space when employees are working to continuously monitor the air within the space.
5. Periodically test the atmosphere inside the space to assure no hazardous atmospheres exist.
6. If an potentially dangerous atmospheric hazard is detected inside the space, all employees will immediately leave the space and the situation will be corrected before anybody reenters the space;
7. Entry permits shall be completed when using these alternate entry procedures.
8. Use of the alternate entry procedures does not require the use of attendants outside of the space, nor does it require an emergency rescue service to be immediately available. However, the use of attendants and rescue procedures is advisable.

K. Entry into Non-Hazardous Confined Spaces

1. Spaces such as some intakes, fish ponds, most liberation trucks and vessel fish holds are not expected to have atmospheric hazards since there is continuous water and air movement, and/or there is no decaying organic matter or other chemical use in the space. However, there may be physical hazards associated with these spaces such as high water flow or difficult entry or egress.
2. If all the hazards (physical and atmospheric) inside of a space can be eliminated without having to first enter the space, it can be classified as a non-hazardous confined-space and entered without using permit-space entry procedures. If ventilation must be used to control potential atmospheric hazards, the space cannot be classified as non-hazardous. At the minimum, the Alternate Entry Procedures must be used.

L. Multiple Employers, Contractors and Visitors

1. All non-ODFW personnel entering confined spaces at ODFW facilities will follow the requirements of the ODFW confined space program. Exceptions will be made on a case-by-case basis if the non-ODFW employer has a confined space entry program and that program has been reviewed and deemed satisfactory by ODFW.
2. ODFW site supervisors will inform visitors and contractors of the locations and hazards of the confined spaces at the site. In addition, the visitors will be informed of any control procedures in place to minimize or eliminate the hazards.
3. If multiple employers are working in or near the same confined space, their activities will be coordinated so that the actions of one employer will not pose a danger to others. Coordination of activities will also be done if visiting employers and ODFW employees are working in or near the same confined space.
4. The means by which visitors and contractors will be informed of confined spaces at the facility and coordination of activities will be handled on a case-by-case basis. Possible methods include pre-entry meetings with all affected parties and written correspondence.
5. At the end of confined space entry activities, visiting employers will notify the ODFW site supervisor that they have completed their work. The visiting employer will be debriefed as to the nature of the work and the presence of any hazards in the spaces.

M. Rescue Procedures

1. Prior to any permit-space work (unless using the Alternate Entry Procedures described in that section), a site-specific rescue plan must be developed that addresses any specific procedures to be followed. The rescue plan for the permit confined space work will be integrated with the medical and fire emergency response plans for the site. All personnel involved with the entry will review the plan.
2. Equipment will be available at the entrance to the permit-space to allow attendants to make non-entry rescues. This equipment may include body harnesses and belts, lifelines, and retrieval devices. The choice of equipment will be dependent upon the space that is entered and will be listed on the permit. If vertical entries greater than five feet deep are made, a mechanical retrieval device, such as a tripod with a hand-powered lifting winch, must be used to facilitate non-entry rescue.
3. If outside emergency rescue service providers will be used, the site manager will evaluate these providers with respect to their ability to respond in a timely manner to a confined space emergency. Attachment D of this policy is a copy of a Rescue Provider Evaluation Form.
4. Outside emergency rescue providers must state that they are willing and able to perform rescues. These providers will be informed of the types of confined spaces they may encounter at the site and will be invited to the site to visit all confined spaces from which rescue may be required. Every effort will be made to allow the emergency rescue service providers to practice rescues at the site.

N. Confined Space Entry Program Review

1. The confined space entry program shall be reviewed at least annually. Canceled permits will be utilized to facilitate review of the program. Revisions of the program will be performed to ensure employee safety and compliance with applicable regulations.
2. The program shall also be reviewed whenever deficiencies are suspected. Deficiencies may be suspected when employees note them or there is an incident or near-miss. The program shall be reviewed immediately with corrective actions taken if required.

O. Responsibilities

1. Employees shall:
 - a. Not enter permit-required confined spaces unless authorized to do so; and
 - b. Follow all procedures for entering confined spaces.
2. Supervisors shall:
 - a. Implement the ODFW confined space program at their facility;
 - b. Label all permit-required confined spaces;
 - c. Ensure personnel are trained on the ODFW confined space program; and
 - d. Consult with contractors regarding confined space entry procedures.
3. The Safety and Health Manager shall:
 - a. Assist sites in developing site-specific confined space entry procedures;
 - b. Assist sites in confined space entry training; and
 - c. Provide resources to sites for acquiring needed equipment.

P. Clarification of ODFW Confined-Space Policy

1. This policy covers all ODFW confined spaces in hatcheries, wildlife areas, fish weirs permanent traps, offices, screen shops, or other ODFW non-agricultural facilities that have identified confined spaces at their location. The State Safety and Health Manager can help identify potential hazards and to determine if that confined space should be designated a permit-required confined space.

Attachment A - Confined Space Entry Evaluation Sheet
Attachment B - Rescue Evaluation Criteria
Attachment C – ODFW Entry Permit
Attachment D – Rescue Service Evaluation