

 <p>pennsylvania DEPARTMENT OF PUBLIC WELFARE</p>	<p align="center">Department of Public Welfare Accident and Illness Prevention Program Manual</p>		
<p align="center">P.7 Safety Standards for Confined Space</p>			
<p>By Direction of:</p> <p align="right">Glenn E. Williams, Director <i>Glenn E Williams</i> Bureau of Administrative Services</p>			
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<p>Category:</p>	<p>Safety</p>		

Implementing Instructions: This policy updates DPW Accident and Illness Prevention Program Manual P.7 Safety Standards for Confined Space, June 2, 2009. Please share this information with your local Safety Manager/Coordinator, Maintenance Manager, and other local supervisors and managers as appropriate.

Comments and questions regarding this Accident & Illness Prevention Program Manual Section should be directed to: The Bureau of Administrative Services, Division of Emergency Planning and Safety Operations (DEPSO), Safety and Environmental Section, Program Manager at (717) 772-2076.

A. General

The Confined Space Safety program addresses practices and procedures for employee protection from confined space hazards in DPW operated hospitals, centers, camps and facilities (ODP, OMHSAS, and OCYF).

B. References

This manual section references and enhances the following Code of Federal Register (CFR), National Institute for Occupational Safety and Health (NIOSH) and American National Standards Institute (ANSI) standards relating to confined space.

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| 29 CFR 1910 146 | Permit-required confined space. |
| NIOSH 87-113 | Guide to Safety in Confined Space. |
| ANSI A117.1-2003 | Safety Requirements for Confined Space. |
| ANSI Z359-1992 | Personnel Riding Systems for Confined Space. |
| ANSI A10.4-1988 | Hoists and Lifts for Confined Space. |

C. Policy

Confined space represents a major health and safety risk for employees. All DPW facilities shall identify and control access to all confined space (see definition) on the facility in compliance with standards set forth in this section.

D. Definitions

Atmosphere	Gases, vapors, mists, fumes, and dust within a confined space.
Attendant	An individual stationed outside confined space who monitors the authorized entrants and who performs all of the attendant's duties assigned in this policy.
Authorized Entrant	An employee who is authorized entry into the confined space.
Ceiling Level	The maximum airborne concentration of a toxic agent to which an employee may be exposed for a specified period of time.
Combustible Dust	A dust capable of undergoing combustion or of burning when subjected to a source of ignition (not measured with explosive meter).
Confined Space	A space which, by design, is large enough and so configured that an employee can bodily enter and perform assigned work, has limited opening for entry and exit; unfavorable natural ventilation which could contain or produce dangerous air contaminants, and which is not intended for continuous employee occupancy. Confined space(s) include but are not limited to storage tanks, process vessels, pits, silos, vats, degreasers, boilers, ventilation and exhaust systems, sewers, tunnels, underground utility vaults, and pipelines.
Emergency	Any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the confined space that could endanger entrants.
Entry	The action by which a person passes through an opening into a confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

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- Entry Permit** The written or printed document that is provided by the safety manager, maintenance manager to allow and control entry into a permit space and that contains the information as specified in this policy.
- Entry Supervisor** The person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this policy.
- Hazardous Atmosphere** An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is escape unaided from a confined space), injury, or acute illness.
- Hot Work** Any work involving burning, welding, riveting, or similar fire producing operations, as well as work which produces a source of ignition, such as drilling, abrasive blasting, and space heating.
- Immediately Dangerous to Life or Health (IDLH)** Any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a confined space.
- Inerting** Displacement of atmosphere by a non-reactive gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.
- Isolation** A process whereby the confined space is removed from service and completely protected against the inadvertent release of material by the following: blanking off (skillet type metal blank between flanges), misaligning section of all lines and pipes, a double block and bleed system, electrical lockout of all sources of power, and blocking or disconnecting all mechanical linkages.
- Lower Explosive Limit (LEL)** The minimum concentration of combustible gas or vapor in air (usually expressed in percent by volume at sea level), which will ignite if an ignition source (sufficient ignition energy) is present.
- Oxygen Deficiency** Refers to an atmosphere containing less than 19.5% oxygen by volume.

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Oxygen enriched Any oxygen concentration greater than 23.5% (PO₂ – 190mm Hg) at normal atmospheric pressure.

Permissible Exposure Limit (PEL) The maximum 8-hour time weighted average of any airborne contaminant to which an employee may be exposed. At no time shall the exposure level exceed the ceiling concentration for that contaminant as listed in 29 CFR Part 1910 Sub Part Z.

Purging The method by which gases, vapors, or other airborne impurities are displaced from a confined space.

Prohibited Condition Any condition in a confined space that is not allowed by the permit during the period when entry is authorized.

RPP Respiratory Protection Program

Retrieval System The equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry retrieval of persons from confined space.

Testing The process by which the hazards that may confront entrants of a confined space(s) are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

E. Responsibilities

1. The Chief Executive Officer/Director (CEO/Director) has over-all responsibility for the local confined space entry program.
2. The Facility Assistant Superintendent/Business Manager/Chief Operating Officer/Director of Quality Assurance/Risk Management, as supervisor of all support-related functions, shall ensure compliance with all sections of this Accident & Illness Prevention Program Manual.
3. Facility Safety Managers/Coordinator/Officers are responsible for:
 - a. Implementing and complying with provisions of the DPW Accident & Illness Prevention Program Manual pertaining to safety standards for confined space entry procedures.
 - b. Developing the internal facility policies and procedures pertaining to confined space entry program.

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- c. Conducting confined space awareness training for employees.
 - d. Ensuring record keeping functions for confined space entry program are performed.
 - e. Conducting inspections of confined space entry work to ensure worker safety and proper "permit required confined space entry" signs are permanently posted outside of each entrance to the space. Also, ensure permit required spaces are securely locked.
 - f. Ensuring compliance with safety provisions of this manual regarding respiratory protection.
 - g. Coordinating with the Facility Maintenance Manager to ensure all record keeping is in compliance with current requirements.
 - h. Coordinating with local emergency services for qualified confined space rescue teams in case of confined space emergency.
 - i. Ensure contractors or outside personnel comply with all requirements.
4. The Facility Maintenance Manager is responsible for implementing/complying with the provisions of the Accident & Illness Prevention Program Manual to include:
- a. Engineering/work determinations and proper reporting of confined space.
 - b. Maintain all documentation and records pertaining to the PM program, confined space location identification, blue prints, work orders and supporting documentation. These activities shall be accomplished in conjunction with Facility Safety Manager/Coordinator/Officer so as to ensure compliance with current requirements.
 - c. Ensuring all confined space entry areas are identified as directed by facility policy.
5. The Bureau of Administrative Services, Division of Emergency Planning and Safety Operations (DEPSO), is responsible for:
- a) Consultation with Facility Safety Manager/Coordinator/Officers and Facility Maintenance Manager relative to compliance, and technical assistance in the area of confined space.
 - b) Periodic review of annual training requirements as they apply to DPW worksites.

- c) Site reviews and technical consults.

F. Documentation Requirements

1. Initial survey to identify and classify the location of all confined spaces is required. All confined space locations may be properly classified utilizing the Confined Space Decision Logic (Attachment 3). The following documentation can be utilized to identify and classify confined spaces:
 - Blue prints/drawings
 - Locator list
 - PM System information
 - Confined Space Classification/Identification Form (Attachment 4)
2. Annual review of the confined space program shall be accomplished by both Safety Manager/Coordinator/Officer and Facility Maintenance Manager.
3. In-house work shall be documented using the Maintenance Work Order (MWO) system. The completed work order shall be the basis for the job documentation. The work order is to be attached to the confined space entry permit. A hot work permit will be attached to the confined space entry permit when issued for work in confined space areas.
4. Contracted work shall include documentation notifying a contractor of confined space areas that may be encountered during the scope of the contract. All contractors are to comply with all applicable laws, ordinances, rules, regulations, and orders of any public authority having jurisdiction for safety of persons or property, or to protect them from damage, injury or loss.
5. Records and documents pertaining to confined space entry are to be maintained in a separate file. These records are required to be maintained on-site for a minimum of two years. The Maintenance Manager and Safety Manager/Coordinator/Officer are jointly responsible for coordinating the maintenance of records and documents retention program pertaining to confined space entry records.

G. Employee Training Requirements

1. Employees who do not perform confined space entry shall be made aware of the hazards associated with confined space during orientation/training.
2. Employees assigned confined space entry work, or in support of those working in a confined space, shall have annual training in the following areas:

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- a. Entry and exit procedures.
 - b. Use of applicable respirators.
 - c. Lock-out/Tag-out procedures.
 - d. Safety equipment use.
 - e. Emergency procedures.
 - f. Permit system.
 - g. Work practices.
 - h. Communications.
3. Supervisors responsible for supervising workers in confined space shall also have training listed for workers above.
 4. Training shall not be considered complete until the trainer, and Safety Manager/Coordinator/Officer, judges that the employee has attained an acceptable degree of proficiency for entering and working in confined spaces. Documentation of training shall be maintained by the Safety Manager/Coordinator/Officer. It shall include the employee's name, date of training, and signature of trainer verifying acceptable degree of proficiency.
 5. Training records must be maintained for a minimum of two years.
 6. Confined space training shall be entered into the Enterprise Training System (ETS).

H. Medical Monitoring

1. All employees who use respiratory protection to enter confined space shall receive medical examinations to assure initial and continued fitness to wear respirators in accordance with DPW policies. No employee may use respirator protection to enter confined space without prior training and medical monitoring along with a medical clearance for respirator use. The examining physician is to provide a written signed opinion regarding each employee's fitness for respirator usage along with appropriate medical testing and evaluation. Employees will be placed in the respiratory protection program in accordance with DPW Accident & Illness Prevention Program Manual, P.12.f Safety Standards for Asbestos Containing Materials, Section H Asbestos Medical Monitoring Program (AMMP); and P.12.k Safety Standards for Respiratory Protection Program (RPP). Employees are to be

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informed of their respirator clearance status within two weeks of facilities receipt following medical evaluation.

2. Exceptions

- a. Employees who are currently in an asbestos medical monitoring program need not be placed in this separate program. Documentation on confined space program shall be maintained and shall include a copy of the overall respirator clearance statement from asbestos medical monitoring.
 - b. Employees who are currently in a respiratory protection program need not be placed in a separate program. Current involvement in the local RPP is sufficient. Documentation of the confined space program shall be maintained and shall include a copy of the overall respirator clearance statement from the current medical monitoring.
3. All medical monitoring records shall be completed and shall be maintained for thirty years following termination from respiratory protection/asbestos medical monitoring program or termination from Commonwealth employment.
 4. Records shall be maintained in separate individual folders and placed in a designated locked area to ensure confidentiality. A person shall be appointed locally to coordinate and assume responsibility for the medical monitoring and record keeping.
 5. Appropriate testing components, respirator clearance status and frequency of medical monitoring (i.e., annual, periodically) shall be accomplished in their entirety as per DPW Accident & Illness Prevention Program Manual P.12.f and P.12.k respectively, for AMMP and RPP (see H.1 above).

I. Requirements for Confined Space Entry

1. Permit System

- a. Entry into a confined space by permit only. The permit is an authorization and approval in writing that specifies the location and type of work to be done and known or suspected hazards. (Permit form Attachment 1.)
- b. The supervisor shall be responsible for securing the permit and shall sign off when the following areas and actions have been reviewed and confirmed:
 - 1) Location and purpose of entry.
 - 2) Hazards that may be encountered.
 - 3) Measures for isolating.

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- a) Lock-out/Tag-out.
 - b) Blanking and/or capping.
 - 4) Equipment.
 - a) Personal protective equipment.
 - b) Safety harness and/or lines.
 - c) Tools approved for hazardous use.
 - d) Approved electrical equipment.
 - 5) Atmospheric test readings.
 - a) Oxygen level.
 - b) Carbon Monoxide level.
 - c) Flammability and/or explosive level.
 - d) Toxic substance level (for specific substance as required).
 - 6) Atmospheric monitoring while work is being performed.
 - 7) Personnel training and complete understanding of the hazards.
 - 8) Authorized entrants.
 - 9) Attendant as named on the permit.
 - 10) Communications procedures and equipment.
 - 11) Emergency procedures and location of first aid equipment.
- c. The permit shall be dated and carry an expiration time that will be valid for one shift only. The permit shall be updated for each shift with the same requirements.
- d. The permit shall be posted in a conspicuous place, close to the entrance, with a copy on file with the Maintenance Manager and Safety Manager/Coordinator/Officer.
2. Respiratory protection program shall be implemented at each site where respiratory protection is in use. Respirators shall be available but are not required for use when NO hazardous atmosphere is present or could be produced.
3. Atmospheric testing and monitoring.
- a. Entry into confined space is prohibited until pre-entry atmospheric testing has been completed from outside the confined space. Testing shall be of the entry area and continue to the work area. The tests shall include oxygen, carbon monoxide, and flammability. Any additional testing needs will be identified and performed to the satisfaction of the Safety Manager/Coordinator/Officer.
 - b. Entry into confined space for any type of hot work (i.e., welding, grinding) shall be prohibited when testing indicates that the concentration of flammable gases in the atmosphere is greater than 10 percent of the lower explosive limit (LEL) or oxygen level is greater than 23.5 percent.

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Monitoring equipment used for gas and vapor detection shall be explosion proof and equipped with an audible alarm and visual signaling device that will alert employees when a hazardous condition develops.

- c. Atmospheric oxygen concentration below 19.5 or above 23.5 percent requires a supplied air respirator or self contained breathing apparatus (SCBA) for confined space entry. Forced air ventilation shall be used to control the oxygen level prior to entry or use of supplied air respirator and/or self contained breathing apparatus.
 - d. Air monitoring will be conducted continuously when explosive gases, toxic materials, hazardous contaminants, oxygen deficient or enriched atmosphere is encountered, or when a toxic atmosphere may develop due to the nature of the confined space work being conducted. Testing shall be conducted by the attendant and continuous monitoring by the entrant. Completed air monitoring form shall be completed and placed in the records (Attachment 1).
 - e. When contaminants cannot be kept within the most stringent of the Permissible Exposure Levels (PEL) or Threshold Limit Value (TLV) as set down by the American Conference of Governmental Industrial Hygienist (ACGIH), or the Occupational Safety and Health Administration (OSHA), the employees shall wear an approved respirator. Forced air ventilation shall be used to control the contaminants, when possible, prior to entry or use of approved respirator.
4. Forced air ventilation.
- a. Environmental control within a confined space will be accomplished by purging and ventilating prior to entry into the confined space.
 - b. Continuous general ventilation shall be maintained where toxic atmospheres are produced as part of the work procedures, such as welding or painting, or where toxic atmosphere may develop due to the nature of the confined space.
5. Isolation/Lock-Out/Tag-Out
- a. Isolation procedures shall be specific for each confined space. Safety equipment required during this procedure shall be designated on the permit and be dependent upon the potential hazards involved.
 - b. In continuous systems, where complete isolation is not possible (such as sewers and utility tunnels) specific written safety procedures shall be

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approved and enforced by the Facility Safety Manager/Coordinator/
Officer.

6. Duties of authorized entrant.
 - a. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of the exposure.
 - b. Properly use equipment as required by this policy.
 - c. Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrant of the need to evacuate the space as required by this policy.
 - d. Alert the attendant whenever:
 - 1) The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - 2) The entrant detects a prohibited condition.
 - e. Exit from the confined space as quickly as possible whenever:
 - 1) An order to evacuate is given by the attendant or the entry supervisor.
 - 2) The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - 3) The entrant detects a prohibited condition.
 - 4) An evacuation alarm is activated (air monitoring alarm).

7. Duties of attendant.
 - a. Know the hazards that may be faced during entry, including information on the mode, signs, symptoms, and consequences of the exposure.
 - b. Be aware of possible behavioral effects of hazard exposure in authorized entrants.
 - c. Continuously maintain an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants accurately identifies who is in the confined space.
 - d. Remain outside the confined space during entry operations until relieved by another attendant.
 - e. Communicate with authorized entrants as necessary to monitor entrant status and to alert entrant(s) of need to evacuate the space.

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- f. Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the confined space immediately under any of the following conditions:
 - 1) If the attendant detects a prohibited condition.
 - 2) If the attendant detects the behavioral effects of hazardous exposure in the entrant.
 - 3) If the attendant detects a situation outside the space that could endanger the entrants.
 - 4) If the attendant cannot effectively and safely perform all the duties required under this section.
 - g. Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from the confined space hazards.
 - h. Take the following actions when unauthorized persons approach or enter a permit confined space while entry is underway:
 - 1) Warn the unauthorized persons that they must stay away from the confined space.
 - 2) Advise the unauthorized person that they must exit immediately if they have entered the confined space.
 - 3) Inform the authorized entrant(s) and the entry supervisor if unauthorized persons have entered the confined space.
 - i. Perform no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.
 - j. Maintain entry log and records at the confined space entry site.
(Attachment 2)
8. Duties of entry supervisor.
- a. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of the exposure.
 - b. Verify, by checking that appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
 - c. Terminate the entry and cancel the permit as required if;

- 1) The entry operations covered by the entry permit have not been completed.
 - 2) A condition that is not allowed under the entry permit arises in or near the permit space.
- d. Verify that rescue services are available and that the means for summoning them are operable.
 - e. Remove unauthorized individuals who enter or who attempt to enter the confined space during entry operations.
 - f. Determine, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, and that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.
9. Alternate Entry Procedures
- a. Alternate entry procedures can be utilized if the following are met:
 - 1) demonstrate that the only hazard posed by the permit space is an actual or potential hazardous atmosphere;
 - 2) demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry;
 - 3) develop favorable monitoring and inspection data and meet the requirements of 29 CFR 1910.146(c)(5).

J. Requirements for Non-Permit Confined Space

1. A space classified as a permit-required confined space may be reclassified as a non-permit confined space under the following procedures.
 - a. The permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space for as long as the non-atmospheric hazards remain eliminated. The "Non-Permit" Required Confined Space Entry Certification/Declassification Form or similar facility developed form can be utilized.
 - b. If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed according to entry requirements in this Policy.
 - c. The elimination of all hazards in a permit space shall be documented through certification that contains the date, the location of the space, and

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the signature of the person making the determination. This shall be made available to each employee entering the space.

- d. If hazards arise within a permit space that has been declassified, each employee shall exit the space. The space then must be reevaluated.

K. Equipment/Material Requirement

1. Safety lines.

- a. A safety belt with "D" ring or body harness with attached safety line to a retrieval system shall be worn at all times when entry is made into a permit required confined space.
- b. Safety belts/body harness shall be retrieval lines attached at the center of entrants' back near shoulder level, or above the entrants' head.
- c. If the exit opening is less than 18 inches (45cm) in diameter, then a wrist type harness shall be used.

2. Lowering equipment/Retrieval Equipment

- a. Winches used in confined space entry or recovery shall have a mechanical advantage of 25:1 at a minimum and comply with ANSI A10.4-1988 Hoists and Lifts Standards. Winch shall be used if permit space is more than five feet deep.
- b. Winches shall be manual operated only. NO electrical or mechanical motor operated winches will be used in confined space entry.
- c. Winches used in confined space entry or recovery shall have a fall arrest system incorporated from the manufacturer.

3. Personnel Protective Equipment. In addition to respiratory protection, items may be used to protect against injuries including: safety glasses, hard hats, foot protection, and protective clothing.

- a. Head protection – when used, hard hats shall meet the requirements cited in ANSI 289.I.
- b. Hearing protection – when used, shall be required when noise levels exceed the threshold limit values set forth by the ACGIH.
- c. Foot protection – if used, shall meet or exceed the requirements cited in 29 CFR 1910.136 and shall provide, in addition to protection from falling

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objects, protection from any other hazard (i.e., metatarsal protection, insulation, slip resistance).

- d. Body protection – could include full coverage of work clothing and gloves.
4. Air monitoring instruments.
- a. Air monitoring equipment for gases and vapors shall be explosion proof and equipped with a visual and audible alarm or danger signaling device that will alert employees when a hazardous condition develops.
 - b. Air monitoring equipment will be calibrated, maintained and tested in accordance with the manufacturer's specifications prior to atmospheric testing monitoring, for the following conditions:
 - 1) Oxygen.
 - 2) Carbon monoxide.
 - 3) Flammable gases and vapors.
 - c. Air monitoring equipment calibration results and data form (Attachment 1) will be placed in the confined space entry records.

L. Emergency Procedures

- 1. Each facility/center will establish in writing a confined space emergency procedure prior to any confined space entry.
 - a. Emergency procedure shall cover the following areas:
 - 1) Confined space rescue team location, phone number and emergency notification procedures.
 - 2) Emergency medical location, phone number and emergency notification procedures.
 - 3) Facilitate non-entry retrieval operation, unless the retrieval equipment or operation would increase the overall risk or would not contribute to the retrieval of the entrant (use of tag/life lines).
 - 4) Evaluation of emergency services providers' ability to conduct rescue in a timely manner.

Note: No confined space entry for rescue purposes shall be made by DPW employees (except as stated in paragraph L.2 below).

- b. The procedure will have means of providing the following information to the emergency service(s) responding on a confined space emergency:

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- 1) Description and location of confined space where the emergency exists.
 - 2) Information on hazards that emergency service may encounter when called on to perform rescue in confined space.
 - 3) Access to all permit spaces from which rescue may be necessary so that rescue service(s) can develop appropriate rescue plans and practice rescue operations.
 - 4) A copy of entry permit for the confined space where the emergency exists.
- c. The emergency procedure shall be reviewed by the confined space entrant, attendant, and supervisor prior to each confined space entry with verification by the facility/center Safety Manager/Coordinator/Officer.
- 2. Facilities are prohibited from establishing a confined space rescue team/unit without prior written review and approval from DPW, Bureau of Administrative Services, Division of Emergency Planning & Safety Operations, Safety and Environmental Section. At no time will entry for confined space rescue be permitted by employees of DPW without prior specialized confined space rescue training and prior written authorization from Safety and Environmental Section.**

M. References

- DPW Accident & Illness Prevention Program Manual P.12.f Safety Standards for Asbestos Containing Materials
- DPW Accident & Illness Prevention Manual P.12.k Safety Standards for Respiratory Protection Program

N. Attachments

1. Confined Space Entry Permit
2. Confined Space Entry Log
3. Confined Space Decision Logic
4. Confined Space Classification/Identification Form

CONFINED SPACE PERMIT NUMBER:

ATTACHMENT 1

WORK ORDER NUMBER:

**CONFINED SPACE
ENTRY PERMIT**

LOCATION OF CONFINED SPACE:		DATE/TIME:	
PURPOSE OF ENTRY:		DURATION:	
AUTHORIZED BY:		EXPIRES ON:	
HAZARDS (known or suspected):			

AUTHORIZED ENTRANT(S)	
AUTHORIZED ATTENDANT(S)	

MEASURES FOR ISOLATING & EQUIPMENT	YES	N O	MEASURES FOR ISOLATING & EQUIPMENT	YES	NO
LOCK OUT – DE-ENERGIZE – TAG OUT			EMERGENCY ESCAPE RETRIEVAL EQUIPMENT		
LINE(S) BROKEN – CAPPED - BLANKED			FIRE EXTINGUISHERS		
PURGE – FLUSH AND VENT			LIGHTING (EXPLOSIVE PROOF)		
VENTILATION			PROTECTIVE CLOTHING		
SECURE AREA (POST AND FLAG)			RESPIRATORS(S) (AIR PURIFYING)		
BREATHING APPARATUS			HOT WORK PERMIT		
FULL BODY HARNESS WITH "D" RING			COMMUNICATIONS EQUIPMENT		

Tests to be taken	YES		NO		Test # 11/4/05 Time 11:20am	1 DATE	2 DATE	3 DATE	4 DATE	5 DATE	6 DATE
	YES	NO	(+) 8 hr. TWA	(*) STEL							
Oxygen			19.5-23.5		S						
Combustible Gas (LEL)			Under 10%		A						
Carbon Monoxide			35PPM		M						
Hydrogen Sulfide			10PPM	15PPM	P						
Other Contaminant					L						
Other					E						

LEL = Lower Explosive Limit (*) STEL Short Term Exposure Limit: Employee can work in the area up to 15 minutes
 PPM = Parts Per Million (+) 8 hr. time weighted average.: Employee can work in area 8 hrs. (longer w/appropriate respiratory protection)

Individual Conducting Test (Name):
 Any Questions pertaining to test requirements contact:

INSTRUMENTS USED	NAME	TYPE	IDENTIFICATION NO.

STANDBY PERSON (S)	
YES/NO	
FOR RESCUE AND EMERGENCY SERVICES CALL:	ENTRY SUPERVISOR AUTHORIZING ALL ABOVE CONDITIONS SATISFIED:

ATTACHMENT 2: CONFINED SPACE ENTRY LOG

DATE	NAME	TIME- IN	TIME- OUT	LOCATION	PURPOSE OF ENTRY

DPW ACCIDENT & ILLNESS PREVENTION PROGRAM MANUAL

Attachment 2
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Attachment 3: Confined Space Decision Logic



