



Subject: Confined Space Entry

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### 1.0 PURPOSE

This Standard Operating Procedure (SOP) outlines the Confined Space Program for Albemarle County Public Schools.

### 2.0 **DEFINITIONS**

**Confined space** - A space that:

- Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit (for example, tanks, silos, storage bins, hoppers, vaults, pits, steam tunnels, and manholes are spaces that may have limited means of entry) and;
- Is not designed for continuous employee occupancy.

**Engulfment** - The surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction or crushing.

**Entry** - The action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in the 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.

**Entry Supervisor** - The person (such as the employer, foreman, or crew chief) 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 OSHA's 1910.146 (j).

An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by OSHA's 1910.146 for each role he or she fills. Also the duties of the entry supervisor may be passed from one individual to another during the course of an entry operation.

**Hazardous atmosphere** - An atmosphere that may expose employees to the risk of death, incapacitation, impairment or ability to self rescue (that is, escape unaided from a permit space) injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- Airborne combustible dust at a concentration that exceeds its LFL;
- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;



- Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of 29 CFR 1910, and which could result in employees exposure in excess of its dose or permissible exposure limit;
- NOTE: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment or ability to self-rescue, injury or acute illness due to its health effects is not covered by this provision.
- Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

**Non-permit confined space** - 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.

**Oxygen deficient atmosphere** - An atmosphere containing less than 19.5 percent oxygen by volume.

**Oxygen enriched atmosphere** - An atmosphere containing more than 23.5 percent oxygen by volume.

**Permit-required confined space (permit space)** - A confined space that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- Has an external 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
- Contains any other recognized serious safety or health hazard.



## 3.0 PROCEDURES

#### <u>Responsibility</u>: Environmental Compliance Manager and Assistant Director of Facilities

The Environmental Compliance Manager and Assistant Director of Facilities in Building Services will manage the Confined Space training, record keeping and issuance of entry permits. The Environmental Compliance Manager will maintain the inventory of confined spaces (F-SOP-CSE-01), the permit form for the permit-required spaces (F-SOP-CSE-02), and calibration of the gas monitors each month and maintain records of calibration (Form F-SOP-CSE-03).

#### Maintenance Crew Foremen

Each foreman must ensure his crew is obtaining permits for work required in permit-required spaces.

- A permit must be obtained from the Environmental Compliance Manager or the Assistant Director of Facilities in Building Services.
- In an emergency event when the Environmental Compliance Manager and Assistant Director of Facilities in Building Services cannot be contacted for a permit, an emergency Confined Space Entry permit can be issued by the crew foreman.
- All completed permits must be turned in to the Environmental Compliance Manager the day following the expiration date of the permit.

#### <u>Training:</u>

Building Services will provide training so that all employees whose work may require entry into a confined space have understanding, knowledge, and skills necessary for the safe performance of the duties assigned.

Training shall be provided to each affected employee during each of the following situations:

- Before the employee is first assigned duties under this section;
- Before there is a change in assigned duties;
- Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained;
- Whenever the employer has reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.





Albemarle County Public Schools

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## **<u>Permits and Forms</u>**:

The following forms are maintained by the Environmental Compliance Manager as part of the Confined Space Program:

- Inventory of confined spaces (F-SOP-CSE-01)
- Permit form for permit-required confined (F-SOP-CSE-02)
- Calibration records for the QRAE Multi-gas Monitors (F-SOP-CSE-03)

# <u>Equipment List:</u>

The following equipment is utilized as part of the Confined Space Program for Albemarle County Public Schools.

Equipment	Serial No.	Purchase Date	Location
QRAE Multi-gas	270-420693	10-2007	<b>Building Services</b>
Monitor Model Number			
027-0000-011			
QRAE Multi-gas	270-420682	10-2007	Western
Monitor Model Number			Albemarle High
027-0000-011			School
DBI-SALA Tripod and		10-2007	<b>Building Services</b>
Winch System			
Allegro Forced Air	9513-14751	10-2007	<b>Building Services</b>
Confined Space Kit			
Model Number 9514			