

ACCESSING SAFETY KNOWLEDGE (ASK) SHEET: *CONFINED SPACES – ELEVATORS?*

A *Confined Space* is one of the most dangerous working conditions. It is a confined area where potential hazards can exist that can cause injury or death to an Entrant by a variety of reasons. However, the most cause of death are from asphyxiation, incapacitation, falls, entrapment, and engulfment. Many of these spaces are known to have poor air quality and contain potentially hazardous atmospheres such as stale air resulting in very low oxygen levels or flammable gases that can be explosive or cause acute death due to the inhalation of poisonous gases. Hundreds of workers die every year while in confined spaces that should have been evaluated and identified as potentially harmful. Alarming 60% of the total fatalities are not the workers in the confined space but the rescuers that go in afterwards to try and save their co-workers.



The main reasons why people die in confined spaces are for:

- Failing to recognize a confined space
- Failing to recognize the hazards
- Trusting the physical senses
- Under estimating the dangers
- Complacent attitudes
- Attempting to save a coworker

All confined spaces MUST be evaluated for *potential* hazards, identified by signage, fill out a confined space permit indicating the space is safe for entry and authorizes work. The permit must describe the confined space location, the estimated duration of entry, the hazards found, the atmospheric levels, who the Entrant, Attendant and Entry Supervisor are and other required information.

They are in commercial and residential buildings (with the remainder being in industrial settings). Therefore, potential acute atmospheric hazards in the pits are rare because most of the elevators are in the public areas of commercial buildings and share the ambient air of these areas. As such, the chance for the development of a toxic atmospheric condition usually remote and does not generally need to be addressed beyond the initial evaluation and determination of the space.

The predominant hazards (mechanical and electrical) stem from elevator-related equipment. While most pits may not contain a potential atmospheric hazard, elevator pits generally are permit-required confined spaces by the electrical-mechanical hazard(s). Where the electrical-mechanical hazard(s) can be eliminated, and where there are no potential or actual atmospheric or other hazards, the pit can be re-classified and rendered non-permit required spaces by employing the procedures specified in paragraph 1910.146(c)(7). It is possible, in some cases, to de-energize and lockout/tagout the elevator equipment using the energy control procedures specified in 1910.147 so that the associated energy hazards are eliminated. It is our understanding that the pit stop switch would not lock-out [isolate] the elevator since it is not a main electrical energy disconnect; the main disconnect to elevator equipment would have to be used and locked or tagged to accomplish an electrical de-energization.

In summary:

- OSHA continues to view elevator pits generally as confined spaces.
- There must be a potential or actual hazard present in the elevator pit for it to be classified as a permit-required confined space. Most elevator pits contain at least mechanical and electrical hazards, if all the hazards in the elevator pit can be eliminated prior to entry, the pit can be reclassified as a *non-permit space*.
- Host employers must provide contractors with the specific hazard information on which the permit space-determination is based.
- It is important that employees assigned to perform this type of work be well trained on the potential hazards of a confined spaces, air monitoring, permits, how to classify as *Permit* or *Non-Permit Required*, signs and symptoms of exposure, above ground rescue, first aid and CPR, how to use equipment, and use of respiratory equipment if needed.

Questions? Contact OSHA's Office of General Industry Enforcement (202)693-1850].

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