Job hazard analysis (JHA): Confined space entry

Task: Confined space entry	**Site or job:**
Crew:	**Date:**
Supervisor:	

No.	Job step	Hazard	Controls (most effective first)
1	Identify the space and the hazards	Workers enter a space nobody has evaluated	**Eliminate:** Do the work from outside the space, with extended tools or cameras, so nobody has to enter. **Administrative control:** Have a competent person identify all confined spaces and permit spaces before work begins. (29 CFR 1926.1203(a)) **Administrative control:** Evaluate the hazards of the permit space before employees enter. (29 CFR 1926.1204(b)) **Administrative control:** Prevent unauthorized entry with signs, barriers or covers. (29 CFR 1926.1204(a))
2	Prepare the permit and the program	Entry begins without documented controls	**Administrative control:** Have a written permit space program in place at the construction site before employees enter. (29 CFR 1926.1203(d)) **Administrative control:** Prepare an entry permit that documents the completed measures before entry is authorized. (29 CFR 1926.1205(a)) **Administrative control:** Have the entry supervisor sign the permit before entry begins. (29 CFR 1926.1205(b)) **Administrative control:** Post the permit or make it available to the entrants at the time of entry. (29 CFR 1926.1205(c))
3	Isolate energy and ventilate	Hazardous energy, flow or atmosphere reaches the entrants	**Eliminate:** Close, blank or disconnect lines and lock out energy sources before entry. **Engineering control:** Provide ventilating equipment needed to obtain acceptable entry conditions. (29 CFR 1926.1204(d)(2)) **Engineering control:** Install lighting that meets the minimum illumination and is approved for any ignitable atmosphere. (29 CFR 1926.1204(d)(5)) **Administrative control:** Use the means, procedures and practices necessary for safe entry in the program. (29 CFR 1926.1204(c))
4	Test the atmosphere	Oxygen deficiency, flammable gas or toxic gas	**Engineering control:** Test the conditions before entry is authorized to begin and before natural ventilation is changed. (29 CFR 1926.1204(e)(1)) **Engineering control:** Test first for oxygen, then combustible gases and vapors, then toxic gases and vapors. (29 CFR 1926.1204(e)(3)) **Engineering control:** Monitor continuously for atmospheric hazards unless periodic monitoring is enough as the standard describes. (29 CFR 1926.1204(e)(2)) **Administrative control:** Provide testing and monitoring equipment, and make sure the tester is trained. (29 CFR 1926.1204(d)(1))

No.	Job step	Hazard	Controls (most effective first)
5	Brief the team and assign roles	Roles are unclear when something goes wrong	**Administrative control:** Designate each authorized entrant, attendant, entry supervisor and tester, and identify the duties of each. (29 CFR 1926.1204(h)) **Administrative control:** Review the hazards, the communication method and the stop signals with the whole team. **Administrative control:** Confirm the rescue plan and contact numbers before entry. (29 CFR 1926.1204(i))
6	Enter and work	Entrant is overcome with no one aware	**Engineering control:** Use non-entry rescue with a retrieval system, so the entrant can be pulled out from outside, unless retrieval equipment would increase the risk or would not help the rescue. (29 CFR 1926.1211(c)) **Administrative control:** Keep at least one attendant outside the space for the duration of entry operations. (29 CFR 1926.1204(f)) **Administrative control:** Have the attendant remain outside until relieved by another attendant. (29 CFR 1926.1209(d)) **Administrative control:** Keep communication between the attendant and entrants as often as needed to check their status. (29 CFR 1926.1209(e)) **PPE:** Wear the PPE and use the equipment the program and permit call for, such as a harness and retrieval line or a respirator. (29 CFR 1926.1204(d))
7	Monitor and respond to a change	Atmosphere or conditions change during entry	**Administrative control:** Exit as quickly as possible whenever an alarm, a prohibited condition or an order to evacuate occurs. (29 CFR 1926.1208(e)) **Administrative control:** Have the attendant order entrants out if there is a prohibited condition or the behavioral effects of exposure are apparent. (29 CFR 1926.1209(f)) **Administrative control:** Summon rescue as soon as the attendant decides entrants may need help. The attendant stays outside until relieved by another attendant. (29 CFR 1926.1209(g))
8	Exit, close the permit and remove protection	The space is re-entered without re-evaluation	**Administrative control:** Cancel the permit when the work is done, as the permit system requires. (29 CFR 1926.1204(j)) **Administrative control:** Reclassify a permit space as non-permit only when a competent person determines the conditions in the standard are met. (29 CFR 1926.1203(g)) **Administrative control:** Cover or secure the opening before leaving.

Required PPE

- Full-body harness with retrieval line (29 CFR 1926.1204(d))
- Gas meter for testing and monitoring (29 CFR 1926.1204(d)(1))
- Hard hat
- Gloves
- Communication equipment (29 CFR 1926.1204(d)(3))

OSHA sections

29 CFR 1926.1203 General requirements; 29 CFR 1926.1204 Permit-required confined space program; 29 CFR 1926.1205 Permitting process; 29 CFR 1926.1209 Duties of attendants; 29 CFR 1926.1208 Duties of authorized entrants; 29 CFR 1926.1207 Training; 29 CFR 1926.1211 Rescue and emergency services

Reviewed with the crew. Names and signatures

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