Confined Space Hazards

Virtually all attics and crawlspaces are confined spaces. Workers who enter them must follow some of the requirements in WAC 296-809. Fewer requirements apply to attics and crawlspaces than to tanks, manholes, silos, because attics and crawlspaces rarely have significant hazards in them. Before a worker enters an attic or crawlspace, a little bit of evaluation must be done to document that significant hazards don't exist. **You need a simple written program describing how you evaluate spaces.**

First, some definitions:

Confined space: any space that's harder to get out of than walking through an ordinary doorway. The size of the space doesn't matter; it's all about whether an injured worker would find it difficult to get out on his own, or rescuers would have a hard time getting him out.

It's a confined space if you need to do any of these to exit:

- Crawl
- Climb a ladder
- Twist
- Work around obstructions
- Walk a long distance
- Exert unusual effort
- Pass through a narrow opening

or

- If the opening may become sealed on its own

Almost all attics or crawlspaces have at least one of these access problems.

Permit-required confined space: A confined space that contains a current or potential serious hazard that could kill, incapacitate, or trap a worker, thus requiring rescue from outside.

All confined spaces are to be considered permit-required until proven otherwise.

Very few attics and crawlspaces contain significant potentially incapacitating safety hazards, but a worker (or the employer) still must demonstrate that a particular space isn't permit-required, and document this. Decisions may be based on:

- Information from the building owner
- Observations from the outside and upon entry
- Hazards that your work may introduce into the space (chemical use, welding etc.)

Crawlspaces can present many confined space hazards, including:

- Atmospheric hazards (e.g., flammable vapors, low oxygen levels)
- Electrocution (electrical equip. in wet conditions, unprotected energized wires)
- Standing water
- Poor lighting
- Possibility of structural collapse
- Asbestos insulation

Working in attics can also present confined space hazards, such as:

- Atmospheric hazards (e.g., poor ventilation)
- Heat stress
- Mechanical hazards (e.g., attic ventilators, whole house fans)
- Electrical hazards (e.g., damaged or frayed wires, open electrical boxes)
- Slip, trip and fall hazards
- Asbestos insulation

You should use a simple checklist of potential incapacitating hazards in an attic or crawlspace as documentation of your evaluation. If you find a current or potential serious hazard in an attic or crawlspace, you must eliminate the hazard before entering. **If the hazard can't be eliminated, it's a permit-required space**, and you need to follow the regulations in WAC 296-809-500.

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You need to have plans for eliminating or avoiding hazards including:

- Exposed electrical wiring due to damage or poor work done previously:
  - Electricians: repair or cover it (depending on what your contract includes)
  - Other trades: avoid the hazard; put up a barrier if you need to work close to it
  - DO NOT ENTER a crawlspace with wires hanging down into water or where you will contact them---unless you're an electrician and you've taken appropriate safety precautions before going in to repair the problems.
- Don't touch knob & tube wires unless you're working on them.
- Falling through ceiling joist spaces if you can't see the joists.
- Heat stress in attics
  - drinking lots of water may not be enough to allow continuous work
  - for anything more than a few minutes, you may need a fan
  - schedule work on cooler days, or work at night.
- Fill out a hot work permit for welding, propane torch use, or grinding.
- Ask the building owner about any hidden or unexpected hazards you may encounter.
- Extremely tight spaces: The trapping hazard makes it a permit-required space.
- Carry a backup flashlight in case your main light source fails.
- Communication if working alone:
  - Is there cell phone service?
  - Will the building owner agree to stand by when the worker is in the space?
- Even if it's not a permit-required space, you need to plan how to get an injured worker out of it.

Training

Workers need:

- asbestos awareness training
- heat stress training for work in attics in summer
- training on how to recognize serious hazards that could incapacitate or trap a worker in attic or crawlspace work, and ways to eliminate them.