

HAZARD ALERT

Industry: Construction

Age: 31 years

Experience: 1½ years

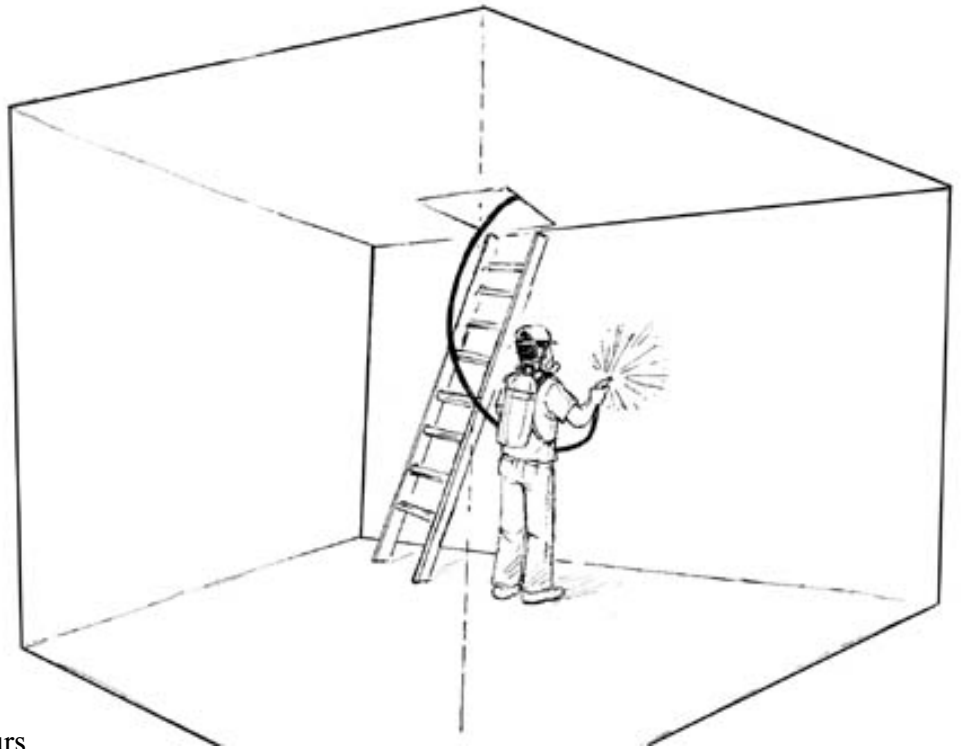
Area: Vancouver Island

Confined space

Explosion kills one and seriously injures another

One worker died and a second worker was severely injured in an explosion and fire inside a confined space. The first worker was inside a water cistern applying a flammable, waterproof coating using a truck-mounted spray system. The only access was through a vent opening at the top. The second worker was near the vent opening when the explosion occurred, knocking him off the roof. He suffered third-degree burns to his face, ears, and hand. The worker inside the cistern suffered third-degree burns to 80% of his body and later died.

An investigation revealed inadequate ventilation to control the flammable vapours generated and a lack of safe work procedures for confined space entry. Static electric discharge most likely ignited the flammable vapours.



The water cistern measured 24 feet x 24 feet with an 8-foot ceiling.

Safe work practices:

- Use hazardous products according to MSDS (material safety data sheet) and manufacturers' instructions. If the instructions are unclear or incomplete, contact the manufacturer prior to use.
- Employers must prepare, and workers must follow, work procedures based on manufacturers' instructions and the Occupational Health and Safety Regulation. This includes requirements for employers to:
 - Identify work areas that are confined spaces and conduct a hazard assessment for each confined space to determine potential hazards for specific work activities
 - Prepare and implement a written confined space entry program before a worker enters a confined space
 - Educate and train workers in safe work procedures specific to the work activity to be done in the confined space (e.g., air testing, WHMIS, lockout, and adequate bonding and grounding of equipment and tools)

FATALITY
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