



Breathing Welding Gas Instead of Air

What happened?

Personnel were preparing to enter a vessel to perform a task which required the use of supplied breathing air. After a few minutes inside the vessel, the affected employee complained of difficulty breathing and was instructed to sit down and catch their breath. The work area was examined and it was discovered that the affected employee had connected the welding gas line to the hood instead of breathing air. The affected employee was then instructed to remove the hood and exit the vessel.

What went wrong?

- The hose connection used on the breathing air line was of a design that made it possible to mix with the connection on a welding gas line.
- The workers did not have adequate knowledge to recognize the danger of breathing air lines and gas lines being mixed.

Why did it happen?

The affected employee was color blind. The hose connections required that a person be physically able to differentiate the colors and understand the difference between colors and connection types.

What areas were identified for improvement?

- Equipment (gas lines) should be labeled with the correct information to mitigate the possibility of mixing welding gas connections with supplied air connections.
- Each fitting on any hose supplying breathing air should be unique and impossible to connect with other types of hoses.
- Safe Work Practices – During the Job Safety Analysis (JSA) pre-planning phase, ensure the appropriate hazards are identified, mitigated, communicated to all affected parties.
- Contractor Management – confined space workers need to be aware / informed of the dangers of utilizing quick connections and couplings on supplied air hoses that may be compatible with other gas systems.

What will WE do to prevent this from happening HERE?

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