

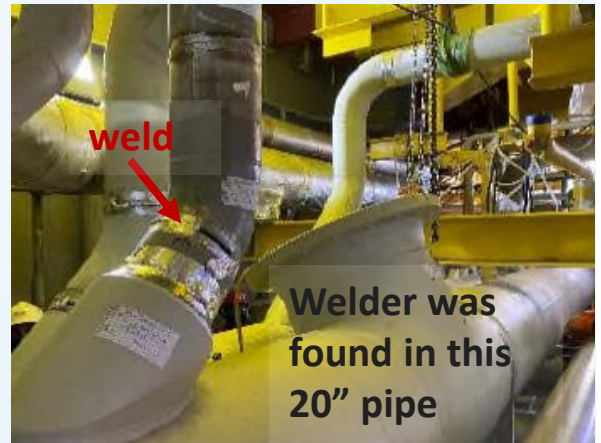
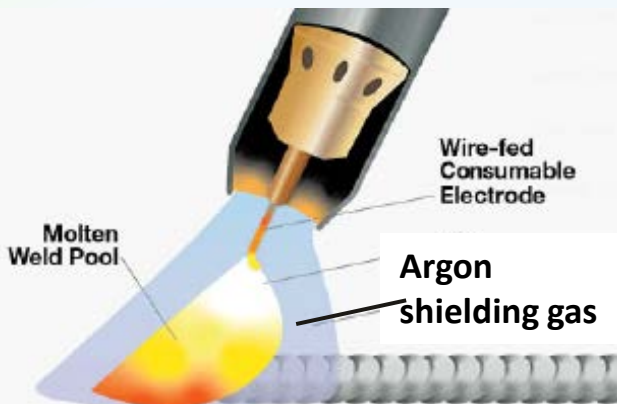
Argon Asphyxiation

EPSC Learning Sheet February 2023



What Happened:

During construction work at an LNG plant, Argon was used in Corrosion Resistant Alloy (CRA) welding, to remove oxygen from the molten weld. The Argon accumulated in the piping and when the welder checked the weld from inside, he fainted and died.



Aspects:

- There is no early warning before fainting, that can occur after 20 seconds breathing Argon instead of air. Argon is slightly heavier than air and can accumulate at low points.
- Consider alternative welding technique like Flux-cored arc that does not require an inert gas.
- Assure welders are trained and aware of the Argon hazards.
- Assure welded pipes are capped and equipped with signs mentioning fatal hazard.
- Assure a welder enters a pipe only with an approved confined space permit and an oxygen detector.
- When finding an unconscious person in a confined space, first alert and equip yourself with breathing air before rescuing.

Argon can cause Asphyxiation