

## Oxygen Deficiency or Enrichment

Oxygen deficiency or enrichment are two of the dangers of permit-required confined spaces. A person can't breathe in either atmosphere.

Oxygen deficiency can be caused by the following:

Fire or Explosion

Oxygen is used up as a fire burns.

Displacement

Oxygen can be displaced by other gases such as argon, carbon dioxide or nitrogen.

Rust

When metals rust it takes oxygen out of the air.

Oxygen enrichment —or too much oxygen in the air—is dangerous because it can be a fire hazard.

- Fires start much more easily in air with more than 23.5 percent oxygen.
- Oil in the presence of pure oxygen will self-ignite.

To avoid these dangers, make sure that the atmosphere is monitored during any confined space entry.