Hazards of hot work

Hot work includes any work that creates an ignition source performed in an area which potentially contains hydrocarbons or flammable materials.

Ignition sources are open flames or sources of heat that could ignite materials in the work area such as welding, grinding, smoking, torching, (un)loading of hazardous materials, internal combustion engines, chemical reactions, batteries, etc.

Hot Work

Control flammables and ignition sources

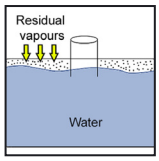
- I identify and control ignition sources
- Before starting any hot work:
  - I confirm flammable material has been removed or isolated
  - I obtain authorisation
- Before starting hot work in a hazardous area I confirm:
  - a gas test has been completed
  - gas will be monitored continually

Source: IOGP, Report 459 *IOGP Life-Saving Rules*

Here are some incidents that have happened during hot work:

Protecting against projections and conduction during hot work

Several fires have broken out during or after hot work activities. Before starting the job, ensure there is sufficient protection of the area against projections or thermal conduction.



Flash during hot spot works on service station gasoline tank

A gasoline tank in a service station had to be neutralised. After being rinsed, it was being filled with liquid mortar. A worker performed grinding work at the nearby tank without protection...

Condensate tank explosion

On the roof of a water/natural gas condensate tank at a gas production site, welding work was done. A valve handle was moved out of the way, which opened the valve. LPG flowed through the valve to the hot spot...

Clamp catches fire during welding operation

Corrosion was identified on a liquefied petroleum gas (LPG) line during inspection. Whilst welding the clamp to repair the pipe, an LPG flame ignited on the clamp.

Skid connected to fuel gas network instead of nitrogen circuit

During preparations for a welding operations, a mixture of explosive and toxic gas was identified using a portable gas detector. The skid controlling the nitrogen levels for the welding operation had been connected...