

LIFE SAVING RULES

06

HOT WORK



Hot work can create significant health and safety hazards that put people, and the premises in danger

- Hot work involves the application of heat, such as flame or anything that creates a spark or high temperatures, for example:
 - Acetylene or gas burning
 - Welding, brazing, or soldering
 - Open flames and grinding
 - Abrasion blasting (e.g., shot blasting); and
 - Operating motorised engines in a hazardous (classified) area

Life Saving Rule:

- When preparing or performing hot work **YOU MUST:**
 - Identify and control ignition sources
 - Before starting hot work:
 - Confirm flammable material has been removed or isolated
 - Obtain authorisation
 - Before starting hot work in a hazardous area ensure that:
 - Gas testing for a flammable atmosphere has been performed by an Authorised Person, using a calibrated gas detector; and
 - The atmosphere at the workplace is continually monitored during performance of the assigned work



Hot work can create significant health and safety hazards that put:

- Workers
- Those around them, and
- Infrastructure; at risk of harm

The Health & Safety Executive define hot work as:

‘The use of open flames, flames and work involving the application of heat by means of tools or equipment’

- Common types of hot work include:
 - Welding, brazing and soldering
 - Grinding and cutting; and
 - The use of open flames, blow-lamps and torches

Hazards created by hot work include:

- Flying sparks
- Flammable:
 - Swarf, slag and cinders; and
 - Molten metals
- Heat conduction, leading to heat transfer to other systems
- Hot surfaces
- Explosive atmospheres
- Exposure to:
 - Toxic fumes and gases
 - Electrical hazards (e.g., electrical welding)

- Elevated temperatures
- Improper isolation of equipment

These hazards must be controlled ensure worker safety some key control measures include:

- Development of task specific risk assessment and method statement (RAMS), to include:
 - Required hazard control measures, including:
 - Cleaning, ventilation and purging
 - Hazardous energy isolation
 - Atmospheric gas testing and monitoring
 - Roles, responsibilities and duties, including appointment of a Firewatch
 - Stepwise breakdown of the task
 - Action in response to an unplanned event (e.g., fire)
 - Issue of a properly completed and authorised Permit to Work (PTW)



Hot work control measures to keep workers safe include:

- Avoid hot work where possible:
Consider alternative processes for example, rather than welding, can you join items together using nuts and bolts or screwed fittings
- Prepare a Permit to Work:
The permit should detail the work to be carried out, how and when it will be completed, and which precautions will be taken to ensure that activities are as safe as possible
- Prepare the job site for hot work:
A job site that is cluttered with unnecessary materials, equipment, waste or debris has a greater '**fire potential**' than a clean, tidy site
- Consider using a designated area for hot work:
These areas should be designed to be as safe as possible, so flammable or combustible objects should be kept to a minimum and covered with fire-resistant materials. It should also be possible to restrict access to these area
- Ensure the job crew:
 - Are competent to carry out the work; and
 - Wear the correct Personal Protective Equipment, including
 - Fire resistance clothing (FRC)
 - Eye protection (e.g., safety goggles and face mask); and
 - Other equipment to protect people from heat, sparks or hazardous fumes and radiation
- Carry out gas testing to ensure:
 - Safe working conditions are maintained; and
 - Workers are protected against the risks associate to hazardous (e.g., flammable and toxic) vapours

