

# Hot works safety



## **Hot Works are one of the biggest fire risks and have the potential to cause serious injury to workers and members of the public.**

There have been numerous fatalities at workplaces caused by hot works.

Hazards associated with hot work:

- Fire caused by heat, sparks, molten metal or direct contact with the flame.
- Explosion when cutting up, repairing or working in the vicinity of drums, tanks, pipes, vessels, which contain or may have contained flammable materials.
- Fire/explosion caused by a gas leak, backfire or flashback.
- Fire/burns from the misuse of oxygen.
- Burns from contact with the flame, explosions or hot metal.
- Crush or impact injuries resulting from explosion or when handling cylinders.

### **What you need to know**

#### **During planning of any hot works**

You must ensure the following mitigating measures are in place:

- A Safe Works Planning Meeting has been conducted with Perth Airport, the contractor and the sub-contractors carrying out the works.
- If required, a valid Hot Works permit has been issued by Perth Airport.
- Consideration must be given to environmental conditions, e.g. are weather conditions considered extreme and/or hazardous to any person/s or property during a Hot Works activity.
- Consider, is a Life Safety Systems (LSS) impairment required to conduct the Hot Works?
- Consider, has LSS been impaired for other High-Risk Activities currently being undertaken in close proximity to your works area.
- Consider are Hot Works to be performed while Working at Height or in a Confined Space? If so a Working at Height or in a Confined Space maybe required.
- Consider whether or not a DFES total fire ban is in place.
- Consider the proximity of the Hot Works to aircraft and/or refuelling operations. NOTE: Hot Works cannot be conducted within 30 metres of aircraft or aircraft refuelling operations, unless with specific conditions, approved by the Permit Issuer.
- A designated Hot Works Zone/Tent can be established on site provided it has been approved by the Permit Issuer and suitable control measures have been implemented.





## Before carrying out any hot works

You must ensure the following mitigating measures are in place:

- Works must be adequately supervised,
- All Hot Works activities should be securely barricaded to stop unauthorised access from members of the public and to protect against exposure to hot surfaces, sparks or welders arc.
- A minimum of two fire extinguishers and one fire blanket must be at hand during and one hour immediately after Hot Works are completed.
- An inspection of the Hot Works areas must be undertaken before any hot works commence.
- All flammable liquids/substances within 15 meters of the hot work area must be removed or at the very least protected.
- Cutting of tanks or drums is not permitted on the airport estate unless approved by the Permit Issuer. Tanks or Drums which may previously have contained combustible materials must be purged and confirmed as inert.
- Gas cylinders must be secured in an upright position and protected from damage and the uncontrolled release of its contents while being used, moved, or stored.
- Flashback arresters must be fitted to both the oxygen and fuel gas hoses. For long lengths of hose, arresters should be fitted on both the torch and the regulator.

## Whilst carrying out hot works

You must ensure the following mitigating measures are in place and adhered to:

- Workers and members of the public must be protected from the potential risks associated with Hot Work activities, including welder's arc, sparks from cutting, falling objects etc.
- All Hot Works in the public domain must be securely barricaded to stop unauthorised access from members of the public.
- Arc Safe welding screens that absorb the dangerous ultraviolet light that is emitted from the arc welding process should be used, especially in the public domain.
- Industrial fire blankets should be used to stop sparks from falling to the ground below, and or getting into cavities.
- A Fire Watch must be implemented whenever Hot Work is being conducted, regardless of the protection provided. A Worker who is competent in the operation of fire extinguishing equipment, and familiar with the terminal emergency procedures, must observe the Hot Work area. The purpose of the Fire Watch is to detect and prevent the spread of any fire produced by the Hot Works.
- **The Fire Watch must be maintained for 60 minutes (1 hour) after the completion of hot works.**