Critical Risks – Hot Works

Identifying, Assessing, Managing and reviewing critical risks is a Canterbury Safety Charter commitment.
Remember I AM safe on site where it’s up to everyone on site to understand and manage the critical risks you’ll come across.

Hot Works

Hot Works are any operation that creates extreme heat or fire, a common example is welding, but also includes grinding.

Typical dangers caused by hot works consist of:

- **Explosions** – often caused by a spark igniting with a combustible material on site.
- **Exposure/Poisoning** – through the inhalation of toxic fumes and gases created by hot works.
- **Burns** – unexpected heat can be conducted through metal on site, this can be some distance from where the activity is happening.

Quick fact

Did you know an authorised hot works permit must be issued before any hot works is carried out?

The permit must be displayed at the worksite. You can find a copy on the WorkSafe website [here](#).
Step 1: IDENTIFY – is this the best place?

- Before any hot works is carried out, consider if the work can be done in a more suitable location.
- Ensure all combustible materials are removed or at a safe distance from the hot works site.
- Consider potential risks around the site e.g. could ignition spread into exposed ceiling spaces?
- Improve and redesign the layout of the site if required - all wall openings need to be covered to prevent materials from escaping.
- Create an emergency plan specific to the site.

Remember: The work area, trenches, pits, etc. must be clear of flammable liquids, gases or vapours.

Step 2: ASSESS – have you got the right gear?

- Anyone involved in hot works must have appropriate PPE gear (see Important box below).
- A fire extinguisher and a hose (where appropriate) must be ready to be used in an emergency.
- Make sure any cross draughts are eliminated where possible.
- Consider a ‘fire watch’ to monitor safety during the work.

Remember: Barricades, warning signs and spark/flash screens must be considered to protect other personnel in the area. All floor and wall openings within 10 metres of the work being conducted must be covered to prevent transmission of sparks between levels.

Step 3: MANAGE – leave the site safe

Explosive materials can remain dormant hours after the activity, but can suddenly break into open flames. It is recommended the site is monitored for at least one hour following the hot works.

Important

The following PPE is needed when carrying out hot works:

- Cotton or fire resistant overalls secured around wrists and neck
- Flame resistant googles
- Protective boots and gloves, appropriate for temperature expected.
- Breathing devices when fumes are generated.

FYI: Most high-vis vests are not flame resistant and should not be worn while carrying out hot works, unless they are flame resistant.

Where do we get more information?

The Safety Charter’s Critical Risk Hot Works webpage has more information which is regularly updated. You can view it here or by clicking on Improve Health & Safety – Critical Risks – Hot Works from the homepage.

If you want toolbox talks on the other 12 critical risks you can check them out online.

Employee issues raised:

Date to be resolved by:

Thank you to Fletcher EQR and WorkSafe New Zealand for providing information for this toolbox talk.

safetycharter.org.nz