

SSOW 35: HOT WORKS/WELDING

Issue Number: 06

Date of Issue: 31/01/2026

Based on: RA05 + RA08

PURPOSE

To ensure electrical welding and hot works are carried out safely and in a controlled manner, preventing fire, electric shock, fume exposure, and injury to personnel. This SSOW sets out the safe working practices, competency requirements, and equipment standards required to perform welding operations in accordance with RA05/RA08, BS 638 Part 10, and site-specific hot work controls.

PPE REQUIREMENTS

For this activity, the following PPE must be worn



High-vis Vest / Jacket (BS EN 471)



Safety Boots (EN ISO 20345:2011) (S3)



Safety Gloves (EN 12477/407)



Safety Glasses (EN 116:2001) or Safety Goggles (EN 169)



Welding Overalls (EN ISO 11611)



Welding Visor (EN 166)

TRAINING REQUIREMENTS

- Competent and authorised welders only.
- Familiarity with RA05/RA08, COSHH assessments, and hot work permit procedures (where required).
- Training in electrical welding safety, fume control, and fire prevention.
- Understanding of equipment isolation, cable management, and UV/IR protection.
- Awareness of designated hot work zones and fire watch responsibilities.
- Knowledge of emergency procedures and spill/fire response.

EQUIPMENT REQUIREMENTS

- Welding set installed and maintained by qualified personnel.
- PAT-tested welding cables, connectors, and electrode holders.
- Fire extinguisher (CO₂ or dry powder) inspected and positioned nearby.
- Welding screens or curtains (BS EN 1598) to protect others from UV radiation.
- Fire blankets or metal sheeting to shield combustibles.

SAFE SYSTEM OF WORK

- Welding sets installed and connected by qualified personnel only, following BS 638 Part 10.
- Check cables, connectors, and electrode holders for damage daily.
- Ensure clean and tight connections, secure return clamp close to the weld.
- Keep leads and power supplies dry and elevated off floors.
- Isolate equipment before changing electrodes or performing maintenance.
- Remove jewellery and metal watches before work.
- Remove or shield combustibles prior to work.
- Fire extinguishers (CO₂ or dry powder) readily available and inspected.
- Fire watch to be maintained during and 30 minutes after welding.
- Welding only conducted in designated Hot Working or Fabrication Areas.
- If work is conducted outside, ensure adequate natural ventilation and restrict access.
- Display "Welding in Progress" signage and use screens or curtains (BS EN 1598) to protect others from UV radiation.
- Remove combustible materials or protect with fire blankets or metal sheeting before work begins.
- Obtain a Hot Work Permit for all non-standard depot workshop welding tasks.

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IDENTIFIED RISKS

The SSOW above has been compiled after identifying the following risks from this activity

- Inhalation of welding fumes and gases (toxic/asphyxiating)
- Burns from UV, IR radiation, or hot metal
- Electric shock from faulty equipment or poor connections
- Fire or explosion from sparks or hot works near combustibles
- Trips from cables and poor housekeeping

FOR MORE INFORMATION, PLEASE REFER TO RISK ASSESSMENT RA05/08

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