

## US BSEE: Welding and burning hazards

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The US Bureau of Safety and Environmental Enforcement (BSEE) has published Safety Alert 482, on risk based inspection identifying welding and burning hazards.

### What happened?

Following inspections on production and well operation sites in the Gulf of Mexico and an analysis of compliance and incident data since 2022, BSEE discovered multiple high potential fires associated with welding and burning operations. Several critical issues were identified requiring attention to ensure the safety and integrity of ongoing operations. In one incident, evidence suggests hot slag from a cutting torch pierced the underside blanket barrier of the living quarters building. The residual heat likely caused the wood subfloor to ignite.

### What went wrong?

Inspections revealed the following:

- Hot work being conducted close (less than 10m) from equipment containing hydrocarbons.
- Inadequate housekeeping practices, with material like cardboard boxes found within 10m of hot work areas.
- Tools for fire prevention, such as fire extinguishers and portable gas detectors, not properly identified as necessary.
- Offshore personnel not following safe welding and hot work procedures.
- Inconsistent and infrequent training for personnel engaged in hot work and/or welding – that is persons without training or coding to the appropriate industry standard, were engaging in hot work.
- Hot work permits and Job Safety Analyses (JSAs) listing the same person to perform fire watch **and** perform the hot work!

### What should be done?

The BSEE recommendations can be summarised thus:

- Ensure there are no flammable materials or hydrocarbons or other fire hazards nearby when preparing for hot work.
- Ensure the rating, current condition, and placement of fire protection barriers mitigate the potential risk caused by hot work, including personal protective equipment.

#### IOGP Life Saving Rules:



Bypassing safety controls



Hot work

- Ensure a heightened level of planning specific to the hazards associated with welding and burning operations – **stop and think for a minute, are we doing this safely?**
- Check that training and competence requirements for persons doing hot work are in place and that they meet appropriate industry standards.
- Hot work operations should be inspected by someone in charge before starting work; adequate supervision and fire watches should be in place throughout.
- Ensure that all persons involved in hot work attend and participate in pre-job JSA meetings and toolbox talks and that they fully understand what is required of them.

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