

SAFETY BULLETIN



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Three Burn Injuries Due to External Heater Treater Fire

In November 2016, a fire occurred on an offshore production platform in the Gulf of Mexico, resulting in burn injuries to three workers. The Bureau of Safety and Environmental Enforcement (BSEE) investigated the incident to determine the cause(s) in an effort to prevent future occurrences.



Burn Damage (left), and the Gap in the Mating Flange in One of the Fire Tubes (right)

The BSEE investigation panel concluded that the fire occurred when flammable gases released when a thief hatch was opened on the dry oil tank to drain oil by hose from another vessel. The gas migrated from the tanks, located on the through the open thief hatch and into the fire tubes on the heater treater, located on the main deck. Both burners were still operating at the time, and the fire tube flame was able to propagate externally due to the existence of a sufficient gap in one of the fire tube mating flanges.

Additionally, the BSEE investigation panel concluded that other causes and contributing factors were the failure to follow safe work practices, insufficient hazard analysis, and failure to adhere to prescribed original equipment manufacturer (OEM) instructions and industry recommended practices and standards.

Therefore, the BSEE recommends that operators:

- Consider conducting visual inspections of natural draft burners, ensuring airtight integrity between flame arrestors and fire tubes.
- Ensure operators are familiar with, and adhere to, OEM instructions regarding start-up, operations, maintenance, and inspection of fired vessels and associated safety devices.
- Consider the use of a portable gas detector when operating in the vicinity of fired vessels.
- Conduct proper hazard analyses when opening process vessels and tanks.

A **Safety Bulletin** is a tool used by BSEE to share the lessons learned from an incident or a near miss. It also contains recommendations that should help prevent the recurrence of such an incident on the Outer Continental Shelf.