

# SAFETY ALERT



**Safety Alert No. 328**  
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## **Gas Release Hazards Identified by BSEE**



*BSEE inspectors use hand-held gas detectors, thermal cameras, and infrared thermometers during gas release risk inspections.*

The Bureau of Safety and Environmental Enforcement (BSEE) recently conducted a review on the latest compliance and incident data to identify safety trends throughout the Gulf of Mexico. The analysis pointed to a potential risk associated with gas releases. During the timeframe reviewed, thirty-one gas release incidents were reported to BSEE by fourteen unique operators. Further, the bureau issued thirty-six gas release incidents of non-compliance during the same timeframe. To reduce the likelihood of future incidents or compliance issues, BSEE developed a protocol to conduct targeted Gas Release Performance-Based Risk Inspections on twenty-six production platforms and ten well operations in the Gulf of Mexico Region over a two day period.

At the completion of the inspections, BSEE further reviewed the results supplied by the district offices and conducted additional reviews on Safety and Environmental Management System specific items – e.g., training documents, electrical classification drawings, safe work practices, job safety analyses, etc. The findings were:

- Seventeen percent of the facilities involved in the inspections had documented oil or gas accumulation.
- Eight of the thirty-six facilities, or 22 percent, had a non-operable gas detector, no process implemented for calibrating devices, failed a bump test, or had no documentation on the frequency and/or results of inspections.
- The facilities associated with the Gas Release inspections had no issues identified by BSEE staff on excessive temperatures. In fact, most observations made by inspectors indicated high temperature areas were well insulated and out of human reach.
- Only one facility had an outdated electrical classification drawing, but very few facilities had warning signs to address area classification. Most signs observed by BSEE inspectors during the Gas Release investigation focused on personal protective equipment – ear protection, safety glasses, gloves, etc. Additionally, one facility failed to notify BSEE of potential hazards through an orientation.
- The inspections suggest that operators' safe work practices do not fully cover pressurized welding enclosures, and are not readily available to offshore personnel. Bridging documents with contractors need to be evaluated to ensure personnel are fulfilling their obligations.

- Overall, job safety analyses reviewed by BSEE met the intent of Subpart S; however, multiple job safety analyses had potential noncompliance with 30 CFR 250.1911 or 250.1928.
- BSEE identified multiple facilities which lacked evidence of personnel training in gas detection.

**Therefore, BSEE recommends that operators:**

- Develop and implement daily and weekly inspection protocol to check for common gas releases based on incident data – float cells, thief hatches, produced water treatment units, etc.
- Work with gas detector original equipment manufacturers to develop and implement monthly, quarterly, and annual inspection protocol for the handheld gas detectors on their facilities that document the date of the inspection or test; include the name and position, and the signature of the person who performed the inspection or test; include the serial number or other identifier of the equipment on which the inspection or test was performed; include a description of the inspection or test performed.
- Review their facilities and contracted drilling rigs to determine if area classification signs exist. If they don't exist or they're not properly marked, operators shall mark the area with signs identifying potential hazards.
- Review all safe work practices associated with gas detection and verify that they are available to all employees involved in the operations and reflect current practices.
- Verify their compliance with 30 CFR 250.1928 and evaluate / audit their latest JSAs with 30 CFR 250.1911.
- Meet with gas detector original equipment manufacturers, production contractors, and drilling contractors to develop minimal training requirements for day-to-day operations.
- Verify that all responsible company personnel and contractors are trained in the work practices necessary to understand and perform their jobs in a safe and environmentally sound manner in accordance with all provisions of Subpart S.

A **Safety Alert** is a tool used by BSEE to inform the offshore oil and gas industry of the circumstances surrounding an accident or near miss. It also contains recommendations that should help prevent the recurrence of such an incident on the Outer Continental Shelf.