



# United States Department of the Interior

BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT  
WASHINGTON, DC 20240-0001

August 25, 2016

## Memorandum

To: Douglas Morris, Chief, Office of Offshore Regulatory Programs

From: Brian M. Salerno, Director

Subject: Follow-up on MC-295 Loss of Well Control Report

I have been re-reviewing the recommendations made in "QC-FIT Evaluation of Seal Assembly and Cement Failures Interim Summary of Findings" which was conducted following the MC-295 loss of well control. This report highlights a number of issues, as yet unresolved, which require expeditious follow-up due to their serious nature. These issues add to the pattern of concerns which has also recently emerged in the context of bolt and connector failures, in that they also raise questions concerning material testing and reliability. Therefore, I am writing to request additional follow up on that report.

While this report has been discussed in public forums with impacted stakeholders, it appears that industry has not taken action to aggressively address all of the issues contained in the report.

This report covers four critical areas:

- Industry standards that address liner hangers or seals,
- Equipment design and qualification,
- Cementing and casing design, and
- Dual barrier system pressure testing and evaluation.

While each of these has particular elements that warrant further investigation, there are several key aspects that require prioritized attention:

First, BSEE staff should determine the extent to which the elastomeric seal introduces an element of uncertainty for verifying the integrity of the well containment system, as it can mask the underlying quality of the cement job. You should work with the Engineering Technology Center (ETAC) and the Office of the Solicitor to determine if this equipment design is consistent with BSEE's regulatory requirements, good engineering practices, or fails to mitigate risks sufficiently. This analysis should also consider approaches for independent testing of the cement and of the seal, so that the seal does not impact the testing of the cement itself.

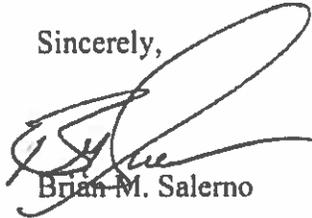
Second, a more thorough examination of applicable industry standards needs to be undertaken in partnership with standards setting organizations. Industry standards should provide guidelines for ensuring that seal systems are adequately designed and tested pursuant to standardized protocols especially if these are being used as permanent barriers.

Third, in conjunction with the review of industry standards, BSEE staff should review the relevant regulations to ensure that the topics are covered adequately to ensure proper usage and testing of liners, cement, and seal assemblies.

Fourth, your staff should undertake a study through ETAC to determine whether a well design which incorporates the use of a shallow liner is adequate from a risk standpoint and whether additional research is necessary to establish best practices or new regulations for casing or liner cementing.

I ask that you and your staff continue to monitor this issue in conjunction with engagement with the regulated community, and update this report as new information becomes available.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian M. Salerno", is written over a printed name.

Brian M. Salerno

cc: Lars Herbst, Regional Director, Gulf of Mexico  
Mark Fesmire, Acting Regional Director, Pacific, and Regional Director, Alaska