



United States Department of the Interior
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
Alaska OCS Region
3801 Centerpoint Drive, Suite 500
Anchorage, Alaska 99503-5823

JUL 08 2015

Susan Childs, Alaska Venture Support Integrator, Manager
Shell Exploration and Production
3601 C Street, Suite 1000
Anchorage, Alaska 99503

Dear Ms. Childs:

The Bureau of Safety and Environmental Enforcement – Alaska Region (BSEE) is in receipt of your letter dated June 11, 2015, which responds to our five requests for additional information relating to the Arctic Containment System (ACS). The five requests were detailed in a letter from BSEE to Shell on April 16, 2015. Your June 11 communication addressed each request directly, but it also referred to additional proprietary documents and data available for review at Shell's offices in Anchorage.

Based on a detailed review of your response and of the materials it references, we find that Shell has adequately addressed each of the five requests for additional information. Specifically, we find as follows:

1. The new anchor system for the containment dome provides superior holding capacity compared to the former clump weight system. It is also capable of being deployed within the same timeframe as the original clump weight system, i.e. prior to the ACS arriving on site.
2. BSEE inspectors reviewed the completed choke manifold on the *Arctic Challenger* in early May 2015. At that time, they also observed a pressure test of the system. Both reviews were satisfactory.
3. New hose handling procedures have been implemented. These will increase the safety of workers on the *Arctic Challenger* by precluding access to areas of hose reel movement prior to the reels being stopped and threefold verification that it is safe to enter.
4. The consequence modeling and Activity Specific Operating Guidelines (ASOG) demonstrate that Shell has considered the operational and safety risks of working with the ACS in proximity to a well that is flowing hydrocarbons. The modeling shows that the ACS' anchored distance from the wellhead would likely be within a safe operational zone (including consideration of wind and current) with respect to any gas plume. Safety recommendations of the consequence modeling have been incorporated into the ACS operations. In addition, the ASOG provides a decision and guidance framework for the

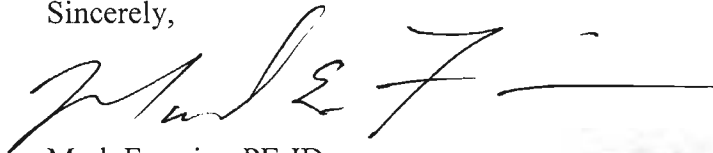
Offshore Installation Manager, based on various scenarios and changing conditions, for when to curtail or cease operations.

5. As you noted in your letter, in an actual response scenario the *Corbin Foss* would be attached to a dedicated mooring buoy, and would not be relying on its own anchor. Thus the scenario we witnessed would not be likely to occur. However, the incident was compounded by operational issues that could have been prevented. Shell and its contractors have made a meaningful investigation into the incident, resulting in new procedures designed to improve communications, and add assurance to the *Corbin Foss*' readiness to respond.

The ACS is hereby approved for use in association with exploratory drilling operations on the Alaska Outer Continental Shelf during the 2015 drilling season. This approval does not constitute approval of Applications for Permits to Drill, which are currently undergoing review by BSEE.

If you have any questions, please contact Kevin Pendergast (Regional Supervisor, Field Operations) at (907) 334-5311, or via e-mail at kevin.pendergast@bsee.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Fesmire', followed by a horizontal line.

Mark Fesmire, PE JD
Regional Director

cc: David Moore (BSEE OSPD)
David Johnston (BOEM RSL&P)