

Tankersley, Yolanda J

From: Fesmire, Mark E
Sent: Monday, September 17, 2012 1:49 PM
To: Feldgus, Steven H
Subject: RE: Shell test

Steve:

My memory of the event is as follows:

At about 12:30 AM, Saturday 9-17, the dome had been released from the Oceanguard buoy that was supporting the weight and had been transferred from negative buoyancy to positive buoyancy to provide an upward force on the clump weights (they had been attached by the ROV), in preparation for using the winches to traverse laterally and down to a predetermined target that we had established. The movement was stopped by the Shell representative who wanted to calculate the lift available from displacing water in the chamber with Nitrogen. He was apparently satisfied with the calculation and the process continued.

As ballast was being adjusted, I was watching on the video feed from the ROV in the survey control room across the hall from the process control room, when the screen filled with bubbles. The dome started to rise and breached the surface for some period of time variously estimated by witnesses on deck as between 15 seconds to 2 and one half minutes. It vented gas (probably the nitrogen used to displace water out of the center chamber and ballast compartments) and then sunk. From the readings available in the survey room where I was, it probably did not hit the bottom, but was suspended by a line from a safety buoy a short distance above the bottom. A survey of the dome by the ROV showed some crushing damage to the dome. Later that morning, when the dome was retrieved, the crushing was more evident and appears to have been caused by the pressure differential in the ballast chambers in the cylindrical portion of the dome.

That evening, there had been two warning indicators that were determined to be bad sensors, one in a venting valve, and the other with the Hydraulic Power Unit that provided power to the winches. When the dome was retrieved, one of the 4 clump weights (8,000# each) was still attached to the dome, but was sitting on the bottom. The other 3 did not appear to be attached.

At this point, I do not have the information to determine the cause of these events.

Mark Fesmire

From: Feldgus, Steven H
Sent: Monday, September 17, 2012 12:33 PM
To: Fleming, Julie S; Fesmire, Mark E
Subject: FW: Shell test

Morgan's looking for some info on the Shell deployment test – Mark, is there any additional detail about the test that you think would be appropriate to share with Congress?

From: Gray, Morgan [<mailto:Morgan.Gray@mail.house.gov>]
Sent: Monday, September 17, 2012 4:21 PM

To: Feldgus, Steven H

Subject: Shell test

Steve, would it be possible to provide me additional detail about the test Shell conducted over the weekend of its capping dome for the Arctic? Specifically, I am looking for additional information on what exactly went wrong, whether we know why it went wrong, and whether we think this problem is specific only to Shell's technology or whether we have reason to believe that other similar devices might also be at risk of such an event. Thanks and please let me know if you have any questions.

Morgan Gray
Senior Policy Advisor
Democratic Staff
Natural Resources Committee

