



United States Department of the Interior  
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT  
WASHINGTON, DC 20240-0001

10 September 2015

Memorandum

To: Lars Herbst, BSEE Gulf of Mexico Region Director  
Doug Morris, Chief, Office of Offshore Regulatory Programs

From: Brian M. Salerno  
Director

Subject: Review of Panel Report for South Timbalier Area Block 220, Well No. A-3

I have reviewed the Panel Report entitled *Investigation of Loss of Well Control and Fire, South Timbalier Area Block 220, Well No. A-3*, which presented a number of findings, conclusions and recommendations arising from the blowout out that occurred on July 23, 2013, while a Hercules Offshore rig was conducting operations on behalf of Walter Oil and Gas. I thank the Panel for its efforts in investigating this incident and generating the Panel Report.

There are similarities between this incident and other blowouts that have occurred in recent years on the Outer Continental Shelf (OCS); in particular this blowout was due in part to the crew's inability to identify critical well control indicators and also to the failure of critical equipment to operate in an emergency. Thankfully, the entire crew of 44 workers was able to evacuate the rig. However, given these equipment and human failures noted in the report, this incident could have easily resulted in a more tragic outcome, and must be viewed as very serious. In all such cases, we must fully understand the root causes so that we can work to prevent recurrence.

In that spirit, I request that you both work with your staffs, consulting with the Panel as necessary, to pursue follow-up work based upon the results of the investigation. This work should be conducted in two phases: a short term (45 day) phase to address items of immediate concern, and a longer term (six month) phase for more complex matters. Upon completion of the Phase One items, I ask you to submit a letter to me describing your proposed plan to address the issues presented below.

**Topic areas for further inquiry:** Based on a preliminary review of the report, additional work within BSEE is required in the following areas;

- **The Failure of the Blowout Preventer (BOP) Components.** The report notes that the pipe and shear rams did not operate and suggests that sand cutting due to the flow of gas and fluids out of the well would have prevented a seal. The report recommends that

operators and rig contractors train their “crews to understand the limits of a BOP to seal a well after a loss of control.” However, such “limits” are not defined in the report and there is no discussion of whether BOPs should be designed to avoid such “limits.”

*Follow-on Task:* Determine if additional requirements are necessary and whether the proposed requirements in the Well Control Rule are sufficient.

- **Accumulator Hydraulic Control Pressure.** The report mentions, without additional comment, that the SEMS Incident Investigation Team Committee Report commissioned by Walter Oil and Gas discusses the possibility that the BOPs ability to close could have been compromised after the accumulator hydraulic control pressure was bled off.  
*Follow-on Task:* More analysis and discussion is needed; any conclusions contained within the report could be helpful as BSEE finalizes the portion of the proposed Well Control Rule that deals with accumulator capacity.
- **Safety Valve Closure.** There is considerable discussion in the report related to the inability of the crew to stab the safety valve into the work string due to the upward movement of the work string. No details on the type or pressure rating of the safety valve are provided. *Follow-on Task:* Given that the annular and pipe rams were unable to close against the high flow rates, determine the likelihood that the safety valve could have been manually closed even if it could have been stabbed into the work string. Also, determine if the valve could have been safely installed given the flow of completion fluids from the well.
- **Flow Detection Equipment.** The report identifies several issues related to the failure of the crew to quickly respond to the influx of natural gas into the well. However, the report does not adequately address whether the flow detection equipment and alarms were functioning and audible or sufficient to provide the necessary warning of an influx.  
*Follow-on task:* Determine if the current technology that is being utilized on the OCS adequate.
- **Human Factors.** The report highlights multiple areas where the crew did not follow established Walter well control criteria during well operations, such as the failure to correctly identify the kick and subsequent flow of natural gas and fluids from the well. It is also apparent from the report that members of the crew may not have been wearing the appropriate safety equipment necessary to protect their eyes and skin from contact with the completion fluids. While the crew was able to safely evacuate, the overall risk to the crew was elevated by these failures. *Follow on task:* Determine if additional training requirements and more thorough well control procedures could benefit all operators on the OCS. Review the Job Safety Analysis to see if it was sufficient.

**Phase One / 45 days:** Within the next 45 days, address the following items and then report back to me regarding any potential recommendations or action items:

- Analyze the failure of the BOP in this incident and consider specific recommendations related to the accumulator and control systems. Also review the safety valve equipment

involved in the incident to assess whether additional requirements are needed for these critical pieces of well control equipment;

- BSEE technical teams for the proposed Well Control Rule will ensure that the proposed regulations adequately address issues arising out of this incident.
- BSEE Gulf of Mexico Region (GOMR) and the Office of Offshore Regulatory Programs (OORP) should initiate focused reviews of flow detection equipment, control systems, and safety valves and incorporate these types of equipment into BSEE's risk-based inspection program; and

**Phase Two / Six months:** Other follow up items to be addressed after completion of the priority items list above:

- OORP will initiate a review of whether the equipment currently used by operators to detect the flow of hydrocarbons into wells should be deemed to be the "best available and safest technology";
- OORP and the GOMR will review current industry practices related to "tripping out of the hole" to ensure that they sufficiently address issues identified in this report; and
- OORP will initiate a review of best practices and training curricula established for well control by industry to determine whether more robust training is necessary for offshore workers.

Upon completion of each of these items, I will reevaluate the recommendations of the initial report and subsequent follow-up work to determine final actions to be taken. I want to thank you again for your hard work on this important matter. If you have questions regarding the additional work that needs to be done, please contact me.