Retrieving Storm Packers

Recently, rig personnel were in the process of retrieving a storm packer set at 500 feet measured depth in 7 5/8” casing with 4000 feet of drill pipe hanging below the packer to provide weight for setting purposes. The well had open perforations below the packer. When the storm packer was unseated, the well unloaded the annulus of calcium chloride workover fluid, forcing the rotary bushings out of the rotary table. One of the rotary bushings fell on the drill floor injuring one person while the second rotary bushing fell into the Gulf waters. Additionally, two personnel were splashed with the workover fluid.

The investigation revealed that a gas bubble had formed under the packer and was undetected by the rig crew. Although the exact cause of the gas buildup has not been determined, the resultant gas escape may have been avoided if the annular preventer had been closed prior to unseating the storm packer. The investigation further revealed that the crew thought the well was dead because the work string, with the weighted fluid, went on a vacuum when the tool was opened.

Based on these findings, MMS recommends that operators:

- Have a detailed procedure covering the retrieval of storm packers.
- It is recommended that a safety valve be installed on the retrieval string to prepare to handle pressure on the drill pipe when opening the equalizing sub.
- Before setting the storm packer, ensure that the well is full of kill weight fluid.
- Be aware that the weep hole on the storm packer could be plugged, giving a false pressure reading below the packer.
- Always have the annular preventer closed prior to unseating storm packers.
- Only essential personnel should be on the rig floor during these operations.

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