



Safety Alert

From the International Association of Drilling Contractors

ALERT 03 – 43

DIVERTER EQUIPMENT – HIGH POTENTIAL CONSEQUENCES

WHAT HAPPENED:

A Drilling Contractor in the Gulf of Mexico reports that subsequent to cementing surface casing using a jack up MODU, annular flow was reported to rig management. The integral diverter system that had been installed on the rig was placed in the “test” mode and the well was shut in to give time for the cement to set up. (The “test” mode is normally used to test the diverter system, after installation, in accordance with MMS requirements.) When pressures rose, the diverter flow line seals started leaking gas to the rig floor. Personnel evacuated the area and an attempt was made to divert the well from the remote station. Due to the configuration of the control system placed previously in the “test” mode on the rig floor, the remote would not operate the desired diverter functions. There were no injuries or environmental impacts due to this incident, however there were high potential consequences.

WHAT CAUSED IT:

Subsequent investigations determined that there was a general lack of knowledge of the complete capabilities and limitations of the integral type diverter system:

1. Flow line seal pressure could have been increased to stop the gas leak and;
2. The diverter could have been closed in, after a time delay, had the “test” valve been left in the normal mode. With the “test” valve in the normal mode, operations from the remote panel would have worked as designed.

Additionally, further investigations revealed that there are several types of approved diverter systems in use in the Gulf of Mexico with control systems of varying complexities, which meet all of the current regulations.

CORRECTIVE ACTIONS: To address this incident, this company issued the following to operations personnel:

- Rig Management and drill crews should be trained and competent in the installation, use, testing and maintenance of the diverter system installed on their particular assigned rig.
- Up to date drawings, manuals and technical information should be available on the rig for reference and training purposes.

The Corrective Actions stated in this alert are one company’s attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.