



Safety Alert

From the International Association of Drilling Contractors

ALERT 08 – 06

FATALITY WHILE TRYING TO FILL UP CASING

WHAT HAPPENED:

The rig's crew was filling the first joint of 13^{3/8"} casing to test the shoe. To accomplish this, the crew used a rubber hose connected to the high pressure standpipe manifold and utilized the high pressure mud pump system to transfer fill fluid to the casing. The standpipe hose connection was located lower than the main piping. This formed a trap for lost circulation material (LCM) to accumulate at the connection point. Three members of the crew were holding the hose in the casing opening when the pump was activated. The crew noticed a lack of flow from the hose nozzle. At the same time a 2,000 PSI pressure spike registered on the standpipe gauge. This spike and lack of flow occurred just before there was a violent release of pressure. The sudden influx of high pressure fluid into the hose caused it to kick upward and strike five workers on the rig floor.

One worker died from a fatal head injury. Four other workers were struck by the hose or high pressure fluid which resulted in various non-life threatening injuries to all. Forty-four operation hours of lost time occurred while rig operations were shut down to carry out an investigation, and running a wiper trip prior to running casing.

WHAT CAUSED IT:

- Supervisors on the rig deviated from the agreed game plan to use the top drive system (TDS) to fill the casing.
- The casing was filled using the high pressure system instead of the low pressure mud tank system (charge pump).
- No Hazard Assessment (JSA) or pre-job safety meeting was conducted before this work started

CORRECTIVE ACTIONS: To address this incident, this company reminded rig and operations personnel of the following:

- Company policy requires that the TDS or service company, fills up machines that should be used to fill casing whenever possible
- Company procedures manual require that low pressure pumping equipment is to be used when filling casing with a hose.
- To prevent hose movement, when filling casing with a low pressure hose, the hose must be tied down prior to starting the pump.

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.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices
Copyright © 2005 International Association of Drilling Contractors All rights reserved.

Issued February 2008