



Safety Alert

From the International Association of Drilling Contractors

ALERT 02 – 50

CUTTING OFF CASING RESULTS IN FIRE IN THE CELLAR

WHAT HAPPENED:

Casing (13 3/8") had been run in the hole and cemented in place. The cement had been displaced using oil-based mud. The welder was instructed to cut off the casing. A hot work permit was developed with the assistance of the operator's safety rep and contractor supervisor and the hot work permit was issued for this job.

To start the job, a torch was used to cut a hole in the casing to allow the fluid above the intended cut in the casing to drain. When the hole was cut the torch ignited the oil-based mud as it sprayed out of the hole in the casing. There was a fire watch standing by who immediately extinguished by the fire and the job was suspended.

WHAT CAUSED IT:

The level of oil based mud in the casing was not determined prior to commencing cutting the casing off. Whenever oil-base mud is in use there is a potential for fire and an extremely efficient ignition source was provided with the cutting torch. The "Fire Hazard" of oil based mud was not identified in the Hot Work Permit. Therefore purging requirements were not met. The job was being performed around 2 AM following a cement job and personnel may not have been as alert as needed to be.

CORRECTIVE ACTIONS:

To address this incident, this company instructed rig personnel:

- When oil based mud is used to displace cement, pump a water blanket to displace the oil based mud before cutting the casing.
- Ensure all personnel understand the requirements and follow "Hot Work Permit" procedure.
- Review MSDS for Oil Based Mud to get a better understanding of this concept of oil-base mud catching fire.
- Hot Work Permits are designed to prevent these kinds of incidents, but they have to be more than just exercising a required procedure. They are there for your protection and must be taken seriously.

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.