HIGH POTENTIAL INCIDENT – DROPPED KELLY

WHAT HAPPENED:

In preparation to pick up a 3 ½” Kelly, the 5 ¼” Kelly and swivel connections were broken with pipe in the hole to lend stability to the process. The 5 ¼” Kelly was then placed in the rat-hole (Kelly shuck) with broken connections until such time that it could be laid down and the 3 ½” Kelly could be picked up for the next drilling interval.

Prior the operations getting to a point where the 5 ¼” Kelly was going to be laid down, a change of crews occurred. The new crew began preparing to test Blowout Preventer Equipment and they were having difficulty getting the cup tester to set in the casing below the BOPE. So they picked up the Kelly to help push the cup tester down into position. Not knowing that the Kelly connections were broken, the driller activated the Kelly spinner to align the cup tester with the casing opening. The swivel’s left handed threads backed out of the Kelly which separated at the break and the Kelly fell to the off-driller’s side of the floor onto the air hoist and sample house. No injuries resulted.

WHAT CAUSED IT:

Breakdown in communication. There were no handover notes indicating that the connections had been broken loose. Setting back a “disabled” Kelly creates a perception of readiness, and requires that ALL supervisors are aware of the Kelly’s condition. The Kelly connections were not marked to indicate that they were broken loose. Lockout/tagout not utilized. The Kelly spinner control was not locked out nor was it tagged out.

CORRECTIVE ACTIONS:

To address this incident, this company did the following:

Communication! The use of handover notes is an excellent means of detailing prior activities and expected operations. Critical information should be posted in a conspicuous area such as a doghouse white board, or use a paint stick to put a message on the weight indicator. Make a note in the Daily Drilling Report and carry this message over everyday that the Kelly remains broken in its rat hole. Make the Handover Notes concept a formal process for each and every job position.

A Lock out/Tagout is another system (barrier) to prevent this kind of incident. De-energizing the Kelly spinner by disconnecting the air and placing a lock and tag on the supply valve would also have helped to alert personnel of the Kelly’s condition.

The JSA for breaking out the Kelly should be modified to include disabling the Kelly spinner in the event that a Kelly which has had the connections broke loose is setback. These systems aren’t just exercises to appease management; these are fundamental barriers to prevent injury and equipment damage.
Assuming people know what is going on is a huge mistake. If the Kelly is set back into the rat hole with the connections broken, assume the possibility that someone will pick up the Kelly, unaware of its condition, and back off the connections. Now what can be done to prevent your assumption from happening?

- disconnect the Kelly spinner air line and lock it out (not just close the air valve)
- write this important information on the weight indicator, if practical
- write this information on a white board
- put this information in the handover notes and pass it on
- verbally tell your relief and his lead floorhand
- tell your supervisor
- tell your crew to mention the status of the Kelly in their handover (verbal and/or written)
- tell the operator’s representative