



Safety Alert

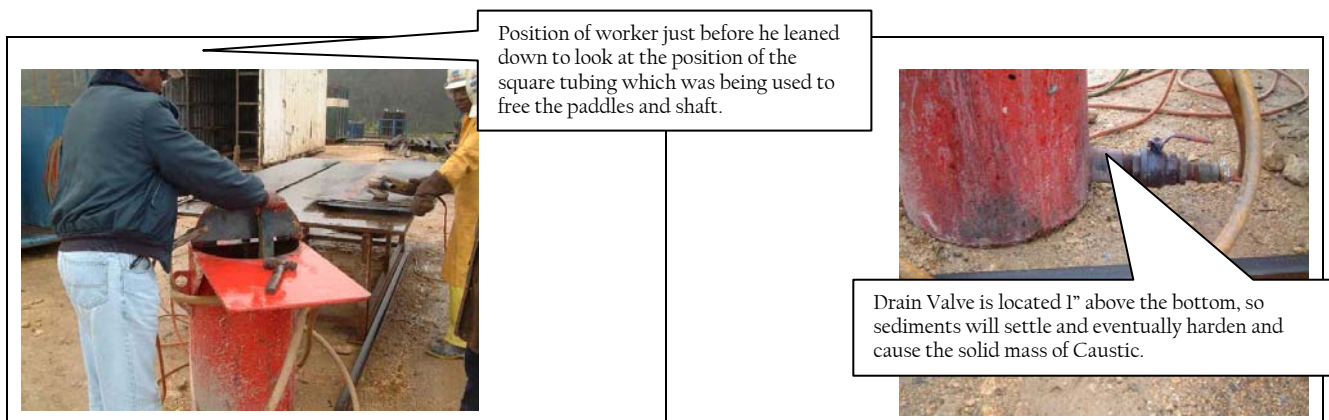
From the International Association of Drilling Contractors

ALERT 07 – 26

CAUSTIC BARREL STEAM / ACETYLENE CUTTING RESULTS IN AN INJURY

WHAT HAPPENED:

A caustic barrel required repair for a seized mixing paddle. The barrel was flushed for 30 minutes then drained and sent to the Hot Work Area for repairs. After the welder cut a rectangular window to access the shaft & paddles on the bottom he noticed a 2" thick hardened buildup of caustic on the bottom; he assumed this was what was seizing up the paddles and used a piece of small square tubing to pry the paddles around. As he bent over to look inside vapor/steam escaped from the observation hole and covered the unprotected portions of his upper face.



WHAT CAUSED IT:

The design of the barrel did not allow for complete draining and it appeared that improper rinsing after each use allowed caked/hardened caustic to gather at the base. After cutting the inspection hole the hazard was seen although it was not identified and the operation continued. After the exposure the worker did not spend sufficient time at the scene rinsing his face. After reaching the medic the patient was told to go back to the Rig Eyewash Station, which exposed his skin to another two minutes of contact with the caustic. The on site medic believed the skin flushing water needed a neutralizing agent to be effective and was not clear on how effective immediate, vigorous irrigation is in reducing the effects. The medic was not aware of the emergency first aid treatment recommended on the MSDS sheet. The sheet was provided to him while the incident was being handled.

CORRECTIVE ACTIONS: To address this incident, this company did the following:

A Safety Meeting was held with all crewmembers within 30 minutes to discuss what had happened and the proper procedures to be followed. Proper procedures should always be followed for any process taking place. In this incident the breakdown likely started by not properly flushing the caustic tank with plenty of water after each use. The design of the tank was questioned and a review of possible change is underway including a bottom that might slant toward the drain. A properly completed JSA might also have recognized the not so common hazard of caustic vapors from the cutting process and included recommendations to eliminate or reduce this potential hazard. Chemicals should be considered an energy source when completing a JSA and any hazards associated with them must be reviewed and recognized. Further

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.

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training/awareness of Hazard Identification and eliminating the hazard prior to continuing with a task should be completed by all rig personnel. The Mud Engineers on locations should be consulted about the effects of chemicals on site and response procedures reviewed so there is no delay in the treatment process.

Personnel should also know and follow the correct work and emergency procedures to minimize injury to themselves and others. All emergencies on site must go through the proper on-site chain of command and all this information should be covered during the initial Rig Site Orientation.

IADC Note: Refer to the IADC HSE Reference Guide Section 2.8 Hazard Communication and MSDSs.

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