COS SAFETY SHARE

WHAT WILL WE DO TO PREVENT THIS FROM HAPPENING HERE?

MISUSE OF HOSES DRAINS HIGH PRESSURE EQUIPMENT

What happened?

Subsea team commenced with the troubleshooting of a Subsea Blowout Preventer (BOP) to identify the source of a leak. After isolating all the functions at the BOP panel, except for critical connections, the system pressure still did not stabilize. A plan was developed to verify and rule out the possibility of the leak coming from a hotline. The Subsea Engineer (SE) made the decision to transfer fluid from the Hydraulic Power Unit (HPU) mixed tank to an offline HPU mixing tank to attempt to make room. The SE routed the hose out of the HPU room with the intention of draining the fluid to the deck below. Once the hotline valve was closed, the fluid began to flow from the hose. The fluid was pressurized at 5,000 psi from the hotline. The SE was attempting to restrain the hose but was unsuccessful due to pressure and it slipped out of his hands striking him on the forehead and the right side of his neck.

What went wrong?

Because this was troubleshooting activity, those involved did not recognize a change in the work plan. Also, the Main HPU mix tank drain line was taken away during its installation in 2014 without properly assessing the risk of the change.

Why did it happen?

SE performed a similar pressure bleed off on a different system on a previous rig without incident, was trying to avoid potential risk of a loss of primary containment on HPU tank from an overfill, which had occurred previously, did not see any other option(s) to complete the task, and self-imposed motivation to complete BOP troubleshooting in efficient manner during down time.

Prior to connection of the hose to the Main HPU mix tank, work management requirements were not followed including risk assessment, permit to work, and energy isolation. Team misjudged force of the back pressure releasing through restricted nozzle and high pressure hazard was not recognized.

What areas were identified for improvement?

Troubleshooting activities are to be planned and executed as per the requirements for any other operation using control of work tools including risk assessment, isolations, pre-job discussion, and exercising stop work authority when plans change.

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