



## U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATIONS STATUS CHANGE SUMMARY

<b>Report:</b>	Gas Well Blowout and Fire at Pryor Trust Well 1H-9
<b>Recommendation Number:</b>	2018-01-I-OK-R9
<b>Date Issued:</b>	June 12, 2019
<b>Recipient:</b>	Patterson-UTI Drilling Company, LLC (Pat-UTI)
<b>New Status:</b>	Closed – Acceptable Action
<b>Date of Status Change:</b>	July 29, 2020

### Recommendation Text:

*Develop a policy that incorporates recommendations in API RP 59, Recommended Practice for Well Control Operations, requiring the regular testing of drillers' influx detection and response skills through formalized drills, for example by "simulating a gain in pit drilling fluid volume by raising a float sufficiently to cause an alarm to be activated." In this policy, require that driller response time is monitored in the spirit of continual improvement.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

On January 22, 2018, a blowout and rig fire occurred at Pryor Trust 0718 gas well number 1H-9, located in Pittsburg County, Oklahoma. The fire resulted in the fatalities of five workers, who were inside the driller's cabin on the rig floor. They died from thermal burn injuries and smoke and soot inhalation. The blowout occurred approximately three-and-a-half hours after removing drill pipe ("tripping") out of the well. The cause of the blowout and rig fire was the failure of both the primary barrier—hydrostatic pressure produced by drilling mud—and the secondary barrier—human detection of influx and activation of the blowout preventer—which were intended to be in place to prevent a blowout.

As a part of its investigation, the U.S. Chemical Safety and Hazard Investigation Board (CSB) examined the well drilling practices and procedures of the Patterson-UTI Drilling Company, LLC (Pat-UTI), a land-based drilling company that was contracted to conduct drilling and well control operations at the Pryor Trust well. The CSB identified issues with Pat-UTI's rig tripping procedures, alarm philosophy, well control practices, flow checks and the effectiveness of the company's safety management system. Consequently, the Board issued five recommendations (e.g., CSB Recommendation Nos. 2018-01-I-OK-R7 through R11) to Pat-UTI to address these issues. This status change summary only addresses the CSB recommendation pertaining to well control practices (e.g., 2018-01-I-OK-R9).

#### B. Response to the Recommendation

In March of 2020, Pat-UTI reported to the CSB that it had revised its emergency drills policy to incorporate the API RP 59 criteria for regular testing of drillers' influx detection and response

skills. These drills are conducted twice a week using forms to document response times and they also include a critique of the drill. Relevant documents related to the above were provided for the CSB to review.

C. Board Analysis and Decision

Based on Pat-UTI's response above, its revised emergency drills policy satisfies the intent of the CSB recommendation, so the Board voted to change the status of CSB Recommendation No. 2018-01-I-OK-R9 to: "Closed—Acceptable Action."