



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

Report:	Gas Well Blowout and Fire at Pryor Trust Well 1H-9
Recommendation Number:	2018-01-I-OK-R2
Date Issued:	June 12, 2019
Recipient:	American Petroleum Institute (API)
New Status:	Closed – Acceptable Action
Date of Status Change:	July 27, 2022

Recommendation Text:

Establish and convene a group of experts with drilling, engineering, and instrumentation expertise to discuss methods to achieve widespread implementation of automatic safety instrumented systems that could bring a well to a safe state in the event other operational barriers fail. Publish a technical bulletin discussing the strategies to implementing Blowout Preventer (BOP) safety instrumented systems.

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) noted that that safety-instrumented systems designed to automatically bring the well to a safe state in the event other barriers fail are not used in the drilling industry. While the drilling industry differs from the more steady-state process industry, the development of automatic well control systems appears to be an area that is technologically achievable, and there is a key opportunity for the drilling industry to research and develop such technology through the collaboration of drilling, engineering, and instrumentation experts. Consequently, the Board issued a recommendation to the American Petroleum Institute (API) to develop and issue a technical bulletin to address this situation.

B. Response to the Recommendation

In March 2022, the API responded to the CSB that it had published Bulletin 16H, *Automated Safety Instrumented Systems for Onshore Blowout Preventer Actuation*, first edition to address how automatic safety instrumented systems could bring a well to a safe state in the event other operational barriers fail. CSB purchased a copy of the bulletin to review and verify API's response.

C. Board Analysis and Decision

The Board determined that API Bulletin 16H, first edition, met the intent of the CSB Recommendation No. 2018-01-I-OK-R2 and voted to change its status to: "Closed—Acceptable Action."