



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

Report:	Public Safety at Oil and Gas Storage Facilities
Recommendation Number:	2011-H-1-R04
Date Issued:	September 30, 2011
Recipient:	Railroad Commission of Texas (RRC-TX)
New Status:	Closed – Unacceptable Action/No Response Received
Date of Status Change:	December 13, 2019

Recommendation Text:

Amend state oil and gas regulations to:

- a) Protect storage tanks at exploration and production sites from public access by requiring sufficient security measures, such as full fencing with a locked gate, hatch locks on tank man ways, and barriers securely attached to tank external ladders and stairways.*
- b) Require hazards signs or placards on or near tanks that identify the fire and explosion hazards using words and symbols recognizable by the general public.*
- c) Require the use of inherently safer tank design features such as flame arrestors, pressure vacuum vents, floating roofs, vapor recovery systems or an equivalent alternative, to prevent the ignition of a flammable atmosphere inside the tank.*

Board Status Change Decision:

A. Rationale for Recommendation

On October 31, 2009, two teenagers, aged 16 and 18, were killed when a petroleum storage tank exploded in a rural oil field in Carnes, Mississippi. Six months later a group of young adults and teenagers were exploring a similar tank site in Weleetka, Oklahoma, when an explosion and fire fatally injured one individual. Two weeks later, a 25-year-old man and a 24-year-old woman were on top of an oil tank in rural New London, Texas, when the tank exploded, killing the woman and seriously injuring the man.

In April 2010, the U.S. Chemical Safety and Hazard Investigation Board (CSB) initiated a safety hazard study into the root causes of these tragic incidents. All three incidents involved rural unmanned oil and gas storage sites that lacked fencing and signs warning of the hazards, which might have otherwise deterred members of the public from using them as places to gather. As a part of its investigation, the CSB identified 26 similar incidents between 1983 and 2010, which resulted in a total of 44 fatalities and 25 injuries. All of the victims were 25 years of age or less. Of the 26 incidents identified by the CSB, twenty-seven percent (27%) occurred in Texas, resulting in 12 fatalities and 8 injuries.

As the Railroad Commission of Texas (RRC-TX) regulates oil and gas site safety for the State of Texas, the CSB reviewed RRC-TX regulations applicable to oil storage tank sites. The CSB concluded that RRC-TX oil field rules (Title 16, Chapter 3, Rule §3.3) require all oil and gas

production facilities to post identification signs displaying the name of the property (as shown on RRC-TX records), the name of the operator, and related information, but that they do not require fencing, warning signs, or locked tank hatches for tanks without hydrogen sulfide. The RRC-TX rules also do not have requirements for using inherently safer tank design to prevent an internal vapor explosion inside oil storage tanks. Consequently, the Board issued a recommendation to RRC-TX to address these issues.

B. Response to the Recommendation

Since the status of this recommendation was changed to “Open – Unacceptable Response/No Response Received” by the Board on September 20, 2012 (see previous Status Change Summary for details), the CSB has received no further response from RRC-TX despite additional follow-up attempts.

C. Board Analysis and Decision

As this recommendation is over seven years old and RRC-TX has previously responded that it is unwilling to implement this recommendation; has made no efforts to address its provisions; and has not responded to further CSB requests for follow-up, the Board voted to change the status of CSB Recommendation No. 2011-H-1-R04 to: “Closed – Unacceptable Action/No Response Received.”