

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division



NOTICE TO OPERATORS

U.S. Chemical Safety Board Recommendations Following their Report on the 2019 Aghorn H2S Incident

Pursuant to the request by U.S. Chemical Safety Board (CSB) Recommendation No. 2020-01-I-TX-R9, the Railroad Commission of Texas (RRC) is providing notice to operators under RRC jurisdiction of the safety issues described in the CSB report.

Several safety issues were identified.

1. **Nonuse of Personal H2S Detector:** Where the potential exists to expose workers or non-employees to H2S concentrations at or above 10 ppm, facilities should ensure the use of personal H2S detection devices as an integral part of every employee or visitor personal protective equipment (PPE) kit prior to entering the vicinity of the facility.
2. **Nonperformance of Lockout/Tagout:** Facilities would benefit from developing site-specific, formalized, and comprehensive Lockout/Tagout program, to include policies, procedures, and training, to protect workers from equipment hazards, such as exposure to H2S.
3. **Confinement of H2S Inside Pump House:** All facilities where the potential exists to expose workers to H2S concentrations at or above 10 ppm would benefit from a comprehensive analysis of the facility design to ensure proper ventilation.
4. **Lack of Safety Management Program:** All facilities where the potential exists to expose workers or non-employees to H2S concentrations at or above 10 ppm would benefit from a safety management program that includes a focus on protecting workers and non-employees from toxic H2S gas.
5. **Nonfunctioning H2S Detection and Alarm System:** All facilities where the potential exists to expose workers to H2S concentrations at or above 10 ppm should properly maintain and configure their H2S detection and alarm systems. Facilities would benefit from having a program and process in place that addresses installation, calibration, inspection, maintenance, training, and routine operations.
6. **Deficient Site Security:** All facilities where the potential exists to expose workers or non-employees to H2S concentrations at or above 10 ppm would benefit from formal, written, site-specific security programs that require employees to lock access gates upon entering and departing the facility.

All operators operating in H₂S designated fields are required to follow 16 Texas Administrative Code (TAC) §3.36 relating to *Oil, Gas, or Geothermal Resource Operation in Hydrogen Sulfide Areas*.

These requirements include, but are not limited to, the following:

- Training on the hazards and characterizations of hydrogen sulfide, safety precautions, and operation of safety equipment and life support system as described in 16 TAC §3.36(c)(13),
- Installation and maintaining safety devices in operable condition or establish safety procedures designed to prevent the undetected continuing escape of H₂S as described in 16 TAC §3.36(c)(8), and
- Fencing or security measures for fixed surface facilities or tank batteries located within ¼ mile of a populated area as described in 16 TAC §3.36(c)(6)(B) and §3.36(c)(5)(C).

To view Recommendation No. 2020-01-I-TX-R9 and related reports, visit the CSB website at <https://www.csb.gov/aghorn-operating-waterflood-station-hydrogen-sulfide-release/>.

Please Forward to the Appropriate Section of Your Company