



H2S Technician: Position Overview

Crescent Safety Services, is a leading global provider of integrated safety and compliance solutions and products. Our Technicians work on offshore or land based drilling rig or production platforms, and refineries where there is a potential for, or an anticipated release of Hydrogen Sulfide (H₂S) gas, during the course of drilling, production, or refining operations. Under these conditions, a regulatory, mandated requirement has been satisfied whereby an H₂S Detection System and Air Breathing Safety Equipment Installation is required. An H₂S Safety Technician is thereby required to man the facility and provide 24 hour coverage of operating and maintaining these systems and provide concurrent responsibility for training ALL rig and service personnel on H₂S Awareness, Operation of Safety Equipment, and Emergency Response Procedures. To fulfill these requirements, the H₂S Safety Technician's duties and responsibilities include but are not limited to the following:

Roles and Responsibilities:

1. Daily

- Familiarize and remain cognizant of all drilling activities which could produce an H₂S release; i.e., well kicks, bottoms up circulation, coring operations, well testing/logging, abnormal well conditions, etc.
- Check H₂S Detection System for proper operation and perform H₂S calibration checks once every 24hour period and every 12 hours once H₂S has been detected. Recalibrate sensors, as required, and record that sensor checks and calibrations were conducted in the Drilling Contractor's IADC Log.
- Maintain daily contact with Company Man, reporting on status of equipment readiness, maintenance performed, and drills or training completed that day.
- Conduct H₂S Awareness and Safety Equipment Training for all new personnel, (who do not hold current TSI Certification Cards), arriving on the rig. Training and safety equipment orientation must be conducted within 24 hours of arrival.
- Insure all 5, 10, and 30-minute SCBA's are functional and fully charged.
- Ensure that all Cascade Air Banks are charged, on-line, and capable of recharging SCBA's. Check system for signs of air leaks. Insure operability of both Electric and Diesel Air Compressors.
- During activities that have a potential for an H₂S release, provide continuous monitoring with H₂S Mini Check Monitors and/or Detector Tubes.
- Maintain communication with the Mud Engineer to ensure that Sulfide analysis is being performed on the mud flow-line. The Mud Engineer can often provide a precursor of information on a pending H₂S gas release.
- Maintain a running inventory and availability of all Safety Equipment. On location, maintain ongoing efforts to keep equipment clean.
- Be prepared to assess the presence of H₂S and SO₂ if the Gas Flare is ignited.
- Complete a Daily Report Log entry on each day's activities.

2. Weekly

- Conduct weekly H2S drills. An H2S drill must be conducted within 24 hours of a crew change and every 7 days thereafter during the course of their shift. Critique, grade the drill, and provide comments and recommendations for areas requiring improvement to the Company Man. If the drill was found to be unsatisfactory, immediate corrective action is required with a follow-up drill conducted within 24 hours.
- Perform visual checks of all SCBA Units, O2 Resuscitators, and clean and sanitize respirator masks as needed. Ensure units are properly stored for emergency donning access. Record results on the SCBA Inspection Report Form contained in the carrying case.
- Perform weekly Air Compressor & Air Cascade Air Quality Checks. Ensure all entries have been made on the Breathing Air Compressor Operating Log for weekly operating and service activities.
- Insure proper operation of all Alarm Stations. This can be accomplished in conjunction with the conduct of the Weekly H2S Drill.
- Review daily and weekly documentation requirements to ensure all forms are current, accurate, and completely filled in. Store all forms for retention in their proper storage location.

3. Monthly

- Conduct Functional Checks of all SCBA equipment. Record results on the SCBA Inspection Record Card contained in each carrying case. Check O2 Resuscitators and sanitize respirator masks as needed.
- Ensure that any maintenance with regard to Air Compressor operations has been accomplished; i.e., air purification cartridge changes, oil changes, and other filter changes as may be needed.
- Perform inspections and functional checks of Safety equipment installed on attending crew or workboats.

Emergency Response Duties:

- In the case of an H2S release, be prepared to don SCBA equipment and perform continuous H2S monitoring until the release is stopped or the order to evacuate has been announced.
- Monitor and determine size and scope of the H2S plume and provide recommendations, based upon monitored conditions, to the Company Man so that proper course of actions can be taken to protect rig personnel from an H2S exposure.
- Ensure that all Air Breathing System Cascade Stations are placed fully on-line to provide an adequate quantity of Breathing Air to the Primary and/or Secondary Briefing Areas. Insure the same is done for other cascade stations.
- Remain in constant communication with the Company Man as a source of information and advice.
- Perform duties to assist Production Supervisor, Shop Foreman-Air Services as directed.
- Perform inspection, cleaning, servicing, reassembling and testing of shop equipment; SCBA'S, manifolds, regulators & hoses.

Additional Duties & Responsibilities

- Perform as a Lead H2S Safety Technician in conducting an H2S Detection System and Air Breathing Safety equipment Installation. Perform all equipment installation, operational checks, and system calibrations. Conduct crew Training for H2S Awareness, Emergency Response Procedures, and proper SCBA use and donning procedures.
- Perform H2S installation rig-ups and rig-downs.
- Be knowledgeable of information pertaining to operating in an H2S environment as contained in the attached list of references.
- Perform other duties as directed by the Manager, Field Services Air.
- Operates, monitors, and maintains and performs calibration checks on H2S Detection Systems and Air Breathing Safety Equipment at a land or offshore based drilling rig or production platform where there is a potential for an anticipated release of Hydrogen Sulfide (H2S) gas. Recalibrates sensors as required and records in IADC log as required.
- During activities that have potential for a release, provides continuous monitoring with H2S mini-check/ multi-gas monitors and/or detector tubes adhering to proper procedures. Maintains daily contact with the Company Rep and reports on equipment readiness, maintenance performed, and drills or training completed that day.
- Be prepared to assess the presence of H2S or SO2 if the gas flare is ignited.
- Monitors and determines the size and scope of the H2S plume using the buddy system. Provide recommendations to the Company Rep so that the proper course of action can be taken to protect personnel from H2S exposure.
- Completes all Crescent Safety Services and Customer documentation associated with assigned tasks in a timely and accurate manner.
- This includes all inspection and repair documents, job cost billable expenses and time sheets.
- Conducts detailed visual inspections and system functional tests of various systems and equipment for the purpose of reporting any deficiencies and corrective action recommendations to customer.
- Conducts H2S Awareness, Safety Equipment and Emergency Response procedures for all rig and service personnel (who do not hold current TS Certification Cards). Conducts H2S drills, critiques and grades the drill and recommends improvements.
- Ensures that all Cascade Air Banks are charged and online. Ensures that all 5, 10 and/or 30 minutes SCBA's (Self Contained Breathing Apparatus) are functional and fully charged. Performs scheduled air quality checks.
- Ensures operability of both Electric & Diesel Air Compressors. Ensures that proper maintenance including air purification cartridge changes, oil changes and other filter changes have been performed and documented.
- Maintains work area and other areas in a clean and orderly condition.
- Maintains ongoing effort to keep equipment clean and respiration masks sanitized. Maintains running inventory of location and availability of safety equipment.
- Performs basic maintenance and care of assigned vehicle and/or trailer.

H2S Technician Training:

Requirements:

- H2S Technician Training Course
- Gas Monitoring Equipment and Analysis Course
- Safe Gulf or Safe Land Training
- Offshore Water Survival Training
- Completed FA/CPR Training/AED
- Incipient Fire Fighting
- Defensive Driving
- Incident Investigation
- Confined Space Entrant/Attendant
- Marine Trash & Debris
- API RP 2-D Rigging & Slings
- Fall Protection End User

Experience:

- 5 years' experience as a land based or offshore H2S Technician
- 5 years' experience with oil drilling rig operations