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Doc Custodian: Safety Supervisor		Refinery Safe Work Procedure
Approved By: Von Meeks	SM-5 H₂S Exposure Control	
Date Approved: 9/5/2019	Next Review Date: 9/30/2024	Effective Date: 9/30/2019

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1.0 Purpose

The purpose of this Plan is to establish minimum procedures for evaluating and controlling routine and/or intermittent employee and contractor exposures to hydrogen sulfide (H₂S).

2.0 Scope

This procedure applies to all employees, contractors, and visitors on site.

This procedure is subject to GBR-HESS-PR-10 Life Critical Safety Procedures & Accountability in the event that one or more of the following has taken place:

- 2.1 Not wearing an assigned H₂S Monitor in the breathing zone with the monitor turned on (applies when not wearing appropriate respiratory protection).
- 2.2 Not reporting of an H₂S alarm (applies to all alarms even when appropriate respiratory protection is worn).
- 2.3 H₂S Monitor calibration / bump test past due where H₂S monitors are required per GBR-HESS-PPE-01 Personal Protective Equipment prior to process unit entry.
- 2.4 Any tampering with or disabling of the H₂S Monitor to circumvent its use.
- 2.5 Not evacuating to a safe location when an H₂S Alarm has occurred (applies when not wearing appropriate respiratory protection).

3.0 Procedure

3.1 Roles and Responsibilities

3.1.1 GBR Leadership Team

Responsible for the following:

- 3.1.1.1 Ensuring that adequate resources (personnel, financial, equipment, etc.) are allocated to prevent H₂S exposures

3.1.2 Industrial Hygiene

Responsible for the following:

- 3.1.2.1 Administering the H₂S Exposure Control program
- 3.1.2.2 Managing the H₂S replacement program for damaged, lost, or malfunctioning monitors
- 3.1.2.3 Ensuring that H₂S exposures / alarm events are properly investigated
- 3.1.2.4 Ensuring that H₂S exposures / alarm events are tracked and that trends are identified and reported
- 3.1.2.5 Ensuring that personal H₂S monitors are audited for compliance with regards to bump checks and calibrations

3.1.3 Safety Department

Responsible for the following:

- 3.1.3.1 Maintaining this H₂S Exposure Control program
- 3.1.3.2 Providing field support (PPE selection, engineering support, exposure mitigation, etc.) to all MPC employees and contractors regarding this procedure

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3.1.3.3 Communicating H2S concerns to the Industrial Hygiene Team

3.1.4 MPC Employees

Responsible for the following:

3.1.4.1 All MPC employees with a need to access areas of the refinery, where H2S may be present, shall obtain a H2S monitor from Safety Repair.

3.1.4.2 Complying with established work practices and procedures designed to prevent overexposures to H2S, keeping up with H2S training, wearing the assigned personal H2S monitor, reporting H2S alarm events, bumping / calibrating the assigned personal H2S monitor, and participating in the identification / prevention of H2S exposures

3.1.4.3 Reporting any H2S exposure immediately to MPC supervision

3.1.5 MPC Supervision

Responsible for the following:

3.1.5.1 Ensuring that H2S exposures are identified and mitigated in their respective areas

3.1.5.2 Ensuring that a list of tasks requiring the use of supplied-air respirators for protection against H2S is maintained and communicated to unit employees and applicable contractors

3.1.5.3 Reviewing H2S exposure reports periodically, but at least yearly, to ensure H2S exposures are properly mitigated

3.1.5.4 Ensuring that H2S hazards are being properly communicated to contractors through the safe work permit process

3.1.5.5 Ensuring that exclusion zones are established, and that air monitoring is performed around and downwind of any release involving H2S

3.1.5.6 Ensure employees are keeping up with their H2S training, preventing H2S exposures, wearing their personal H2S monitors, reporting H2S alarm events, bumping / calibrating their personal H2S monitors, and participating in the identification / prevention of H2S exposure

3.1.5.7 Ensuring that all H2S exposures are reported to medical to determine exposure amount and duration. If exposure is greater than 50 ppm, the supervisor shall bring his employee to GBR Medical for evaluation

3.1.5.8 Ensuring that all H2S exposures are reported to Intelex by the end of the shift.

3.1.6 Contractor Companies and Employees

Responsible for the following:

3.1.6.1 Maintaining and managing a H2S Exposure control program that meets or exceeds this procedures requirement.

3.1.6.2 Reporting any H2S exposure to the owning group supervision immediately.

3.1.6.3 Reporting any H2S exposure to the MPC Maintenance Coordinator immediately.

3.1.6.4 Ensuring that all H2S exposures are reported to Intelex by the end of shift.

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3.1.7 Learning and Development Organization

Responsible for the following:

- 3.1.7.1 Ensuring that H₂S training information is developed and disseminated to all employees who are assigned a personal H₂S monitor and/or who otherwise may be exposed to H₂S
- 3.1.7.2 Generating a report of individuals who are out of compliance with their training obligations

3.1.8 Safety Repair

Responsible for the following:

- 3.1.8.1 Issuing Personal H₂S monitors to MPC employees and select directly supervised contractors
- 3.1.8.2 Maintaining an adequate inventory of Personal H₂S monitors
- 3.1.8.3 Managing H₂S monitor replacement program for damaged, lost, or malfunctioning monitors
- 3.1.8.4 Maintaining bump stations

3.1.9 Medical

- 3.1.9.1 Performing a medical evaluation for MPC or contractor employees with exposures over 50 ppm.
- 3.1.9.2 Issuing Personal H₂S monitors to MPC employees and select directly supervised contractors outside of normal business hours for Safety Repair

3.1.10 Engineering Department

Responsible for the following:

- 3.1.10.1 Designing or coordinating the design of engineering solutions to prevent / control H₂S exposures as needed

3.2 General Requirements

- 3.2.1 Exposures to H₂S shall be maintained below the MPC Short-Term Exposure Limit (STEL) 15 ppm and the MPC Time-Weighted Average (TWA) exposure limit 10 ppm (see definitions).
- 3.2.2 Whenever there is a potential for H₂S exposures to exceed 10 ppm or to cause odor complaints within or from outside the refinery, feasible engineering controls shall be implemented to prevent the exposure. Engineering controls may include, but are not limited to:
 - Equipment / process re-design such as relocation of control valves remote from draining sites, low point drains lines on pumps / lines, and venting to a flare instead of the atmosphere
 - Closed loop sampling stations
 - Sewer enclosure
 - Air cleaning devices such as carbon canisters on vacuum trucks or thermal oxidizer units on tank emissions
 - Visual indicators to show that equipment has been fully drained before line / equipment opening

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- Local exhaust ventilation such as laboratory hoods and portable air horns

3.2.3 For purposes of this policy, exposure to H₂S in excess of 10 ppm shall be considered possible anytime equipment holding or potentially holding process liquids or gases containing 0.1% or greater H₂S is to be opened to the atmosphere. In addition, H₂S can be encountered in any enclosed space where decaying organic matter is present, or released from wastewater, or released when other sulfur compounds in petroleum streams are converted by chemical reaction to H₂S.

3.2.4 Whenever engineering controls are not available or feasible or while waiting for their implementation, suitable administrative controls and/or supplied-air respirators (airline or designated non-emergency SCBA) must be used to prevent exposures. Administrative controls may include equipment-specific line / equipment clearing procedures, demarcated exclusion zones and removal of non-essential personnel, and personnel training.

3.2.5 Air Purifying Respirators (APR) may be used after an APR Task Analysis and Review Process has been completed and approved by the Safety Supervisor. See Attachment C for request form.

3.3 H₂S Hazard Assessment

3.3.1 H₂S Area / Task Identification

3.3.1.1 The site has established the locations where H₂S may be present and has identified the tasks that may lead to exposure to H₂S using the following sources of information:

3.3.1.1.1 Process Safety Management (PSM) / Process Hazard Analysis (PHA)

3.3.1.1.2 Safety Data Sheets for the refinery's intermediate streams

3.3.1.1.3 Area and personal H₂S monitoring results

3.3.1.1.4 Historical injury / illness data on H₂S in the plant

3.3.1.2 GBR is a highly integrated refinery and, as a result, H₂S can be present somewhere within nearly every unit and exposure can result from a broad range of tasks. Recognizing this and in accordance with the site's Process Safety Policy - Process Safety Overview (TCR PS 4.4), each unit maintains a Process Safety Overview bulletin board (poster) that depicts areas within the unit where H₂S may be present at concentrations sufficient to result in exposure. These areas are also physically demarcated with appropriate warning signs.

3.3.1.3 H₂S Warning Signs used to demarcate areas where exposure to H₂S in excess of 10 ppm is possible must read as follows (or equivalent):

DANGER
Hydrogen Sulfide (H₂S)
Fatal if Inhaled
Extremely Flammable Gas

3.3.1.4 Tasks that require supplied-air respirators for protection against H₂S are listed on the unit-specific PPE matrices. This list shall be evaluated at a minimum of once a year to determine if engineering controls, procedures, PPE, or alternative safety controls can be implemented to mitigate the potential for exposure.

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- 3.3.2 Industrial Hygiene Monitoring
 - 3.3.2.1 GBR conducts air monitoring in compliance with OSHA Standards and the MPC Measurement Procedures Manual. All air monitoring is done in accordance with GBR's Comprehensive Industrial Hygiene Program.
- 3.3.3 H₂S Job Planning
 - 3.3.3.1 When planning a job for protection against H₂S, consideration must be given to duration of the task to ensure adequate supply of supplied air is provided.
- 3.4 Personal H₂S monitor Instrument Requirements
 - 3.4.1 Personal H₂S monitors are warning devices and shall not be used for locating leaks or permit testing.
 - 3.4.2 Must alarm at 10 parts per million (ppm) and must employ multiple alarming mechanisms (i.e., visual and audible, audible and vibrate, etc.) MPC personnel will utilize Industrial Scientific Tango TX1 monitors.
 - 3.4.2.1 Once determined that an APR is acceptable for use, employees wearing an APR are no longer authorized to wear a Tango TX1. For all approved APR tasks, an alternate personal monitor will be used (e.g. Ventis). The settings for this monitor shall be 50 ppm H₂S.
 - 3.4.3 Must have a means of communicating monitor failure.
 - 3.4.4 Must have an acceptable means of attachment such as an alligator clip.
 - 3.4.5 Must have a means of displaying the life remaining on the monitor if disposable.
 - 3.4.6 Must be maintained in good condition.
 - 3.4.6.1 Sensor filter must be free of dirt and debris
 - 3.4.6.2 LCD Screen must be clear and readable
 - 3.4.6.3 Must be free of any apparent physical damage to the instrument housing (including rubber over-mold).
 - 3.4.6.4 Instruments may not be modified in any way except as allowed by the instrument manufacture as described in the manufacture's instrument manual.
 - 3.4.7 Must be periodically tested per manufacturer recommendations. MPC personnel will check their Tango to confirm "OK" check mark daily before use and dock their instrument every 30 days maximum.
 - 3.4.7.1 MPC personnel will perform a monthly bump test by utilizing bump test stations (ISC iNet DS Tango Docking Station) located throughout the Refinery.
 - 3.4.7.1.1 The Safety Repair will order, maintain, and manage MPC bump test stations located throughout the site.
 - 3.4.7.2 Alternate personal monitors (e.g., Ventis) for use when performing APR approved tasks will be available at Safety Repair. The Safety Supervisor for Industrial Hygiene will provide authorization to Safety Repair to issue alternate monitors and docking stations to specific units / areas.
 - 3.4.7.3 Contract companies are responsible for maintaining on-site docking stations for downloading alarm events from their employees' personal H₂S monitors and providing alarm data to GBR upon request by the end of the shift. Alternately:
 - 3.4.7.3.1 Contract companies may dock their instruments on an on-site MPC or third-party docking station.

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3.4.7.3.2 Contract companies utilizing Industrial Scientific Tango TX1 monitors may dock their instruments on MPC GBR docking stations.

3.4.7.3.3 Contractors may use the Medical docking stations to download alarm events after hours and on weekends.

3.4.7.4 MPC reserves the right to audit contractor compliance with applicable bump testing requirements. Contractors must provide a report of calibrations and peak exposures by employee upon request.

3.5 Use of Personal H₂S Monitors

3.5.1 Personal H₂S monitors are required when entering refinery production areas must wear a personal H₂S monitor in accordance with GBR-HESS-PPE-01 Personal Protective Equipment.

3.5.2 H₂S monitors must be worn in the breathing zone (an area approximately one square foot around the mouth and nose) with the sensor "exposed." Suggested locations include; the shirt/FRC closure area (near the collar), on the collar, outside chest pocket, or front/side of hard hat. Personal monitors may not be worn on the belt or inside a shirt/coat or back of the hard hat. Noise amplifier covers should be worn over H₂S monitors.

3.5.3 MPC employees and select directly supervised contractors can obtain personal H₂S monitors from safety repair. All other contractors shall provide their own personal H₂S monitors to their employees.

3.5.4 Any person who is issued a loaner personal H₂S monitor (e.g. truck drivers) is required to review and sign Attachment 1 – Incidental (Loaned) Use of Personal H₂S Monitors.

3.5.5 Personnel who are entering the area or performing work where the concentration of H₂S is known to be 10 ppm or greater AND are wearing a pressure-demand airline respirator or designated non-emergency SCBA are NOT to wear their personal H₂S detector.

3.5.6 Personnel should remove their H₂S monitor and leave it in the area where they don/doff their supplied air. This is to verify it is safe to remove the supplied air once the work is complete. All other personnel in the surrounding area OR stand-by/rescue personnel that have NOT yet donned their airline respirator or designated non-emergency SCBA are required to wear their personal H₂S monitor.

3.5.7 Alternatively, or in additional to 3.5.5 and 3.5.6 , a multi-gas instrument capable of measuring H₂S may be provided to personnel to ensure the area in which they don/doff supplied air is safe to do so..

3.6 Obtaining new and/or replacement monitors

3.6.1 Safety Repair will order, maintain, and manage personal H₂S monitors issued to MPC personnel and visitors. To obtain new/replacement monitors, MPC personnel and visitors must utilize the monitor request form. New/Replacement monitors may also be obtained at GBR Medical outside Safety Repair's hours of operation.

3.6.2 MPC Security Gate 1, Gate 22 and Gate 26 will maintain, issue, and manage a loaner pool of personal monitors to accommodate the following limited situations.

3.6.2.1 Infrequent visitors with business that requires them to sign in a unit sign-in log

3.6.2.2 Truck/delivery drivers with non-routine business that requires them to sign in a unit sign-in log

3.6.3 Contract employers must provide their employees who work in designated personal H₂S monitor required areas with a personal H₂S monitor that meets specifications outlined in section 3.3.3 .

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3.7 Loss, Stolen, or Missing H2S Monitor Replacement Monitors

3.7.1 If an MPC employees monitor is lost, stolen, or missing they will need to complete the H2S Detector Assignment form (Attachment B)

3.7.2 The employee's supervisor is required to sign the form and email the form to GBR Safety Repair at G GBR ES&S Safety Repair (gbrsafetyrepair@marathonpetroleum.com). The form must come from the supervisor, for a new monitor to be issued.

3.8 H2S Monitor Alarm Response / Reporting

3.8.1 Initial Response

3.8.1.1 If an MPC employee or contractor employee personal H₂S monitor alarms, or a fixed H₂S monitor alarms, all personnel in the immediate area **MUST** evacuate the area to a safe location, contact operations for that unit, and notify their supervisor. Contractors must also notify their MPC representative.

3.8.1.2 MPC employees and contractors whose personal monitors alarmed **must** place their personal monitors in the docking station after an alarm occurs before returning to work, no later than the end of shift.

3.8.1.3 If an MPC employee or contractor is experiencing symptoms of H₂S exposure, that individual must report to GBR Medical.

3.8.1.4 MPC Employees and contractors must report to GBR Medical prior to returning to work for an alarm over 50 ppm.

3.8.1.5 If an MPC employee's alternate personal monitor alarms during an APR approved tasks, the employee shall evacuate the immediate area and dock their monitor.

3.8.1.5.1 If the alarm is < 100 ppm, the employee shall notify their supervisor, don a supplied air respirator and complete the task.

3.8.1.5.2 If the alarm is ≥ 100 ppm, the employee shall notify an MPC supervisor and Operations, report to Medical for evaluation, and shall be protected from further exposure per section 3.8.7 .

3.8.2 Reporting and Investigation

3.8.2.1 Every occurrence of an alarm on a personal and fixed H₂S monitor (regardless of respiratory protection) must be documented through the incident reporting process along with the concentration and source(s) of H₂S.

3.8.2.1.1 For personal monitors, the supervisor of the employee whose monitor alarmed is responsible to ensure the alarm documented through the incident reporting process.

3.8.2.1.2 For fixed monitors, the supervisor of the area where the alarm occurred is responsible to ensure that the alarm documented through the incident reporting process.

3.8.2.1.3 For Contractors, the MPC representative is responsible to ensure that the alarm documented through the incident reporting process.

3.8.2.1.4 Actions taken to ensure that personnel who were exposed to 50 ppm H₂S or greater are protected from future exposures shall also be documented through the incident reporting process. See section 3.8.7 and 3.8.8 .

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Note: Every personal monitor alarm or exposure regardless of respiratory protection must be reported using the incident reporting process to ensure that all alarms are accounted for in the iNet system, and to document that all personnel were adequately protected, or proper precautions were taken to prevent future exposure.

- 3.8.2.2 In the event a personal H₂S detector alarms with the use of proper respiratory protection, or if a personal H₂S detector alarms due to a known interference or cross-sensitivity issue, it must be entered as a Category 0 (document and close) incident..
- 3.8.2.3 Every H₂S alarm event without the use of respiratory protection must be investigated in accordance with RGD-PS-000003-GB Incident Investigation & Reporting Site Plan PS 11.0.
- 3.8.3 H₂S Event Air Monitoring
 - 3.8.3.1 Air monitoring for H₂S shall be conducted whenever a personal H₂S monitor or fixed H₂S detector has alarmed.
 - 3.8.3.2 A trained employee(s) wearing proper PPE shall conduct initial air monitoring immediately after the alarm to determine: (1) airborne concentrations of H₂S, (2) the source of the H₂S, (3) the level of PPE that must be worn by employees when responding to a possible incident, (4) perimeter establishment to regulate access to personnel, (5) clearance monitoring to determine when the event is over or a false alarm has been determined due to cross interference, etc.
 - 3.8.3.3 Continuous air monitoring shall be conducted during the response activities to assess changing conditions as well as employee exposure.
 - 3.8.3.4 Small incidental releases where the source of the H₂S is readily apparent (e.g. sample station, opening a bleeder) may not require all of the steps in section 3.8.4.2 .
 - 3.8.3.4.1 In the event a small incidental release results in an alarm personnel are to secure the source and follow the steps outlined in section 3.8.1 .
 - 3.8.3.5 Employee(s) must wear a Self-Contained Breathing Apparatus (SCBA) or Supplied Air Respirators (SAR) when responding to an event that the concentration of H₂S is unknown, conditions could change rapidly, or engineering and/or work practice controls do not reduce airborne concentration to less than 10 ppm. Per PPE-5 Respiratory Protection procedure, a back-up person(s) is required when responding to an alarm in an IDLH atmosphere.
- 3.8.4 For re-entry after an alarm, the area atmospheric conditions must be verified by Operations wearing proper PPE and approved for re-entry before personnel can return to the area where the alarm occurred.
- 3.8.5 Employees and Contractors who experience an alarm less than 50 ppm H₂S must take additional precautions to prevent further exposure to H₂S for the remainder of the shift.
- 3.8.6 Employees and Contractors who experience an alarm greater than 50 ppm H₂S without respiratory protection during any work shift or ≥ 100 ppm with an APR while performing an APR approved task must be protected from further exposure to H₂S for the rest of the shift by using one and/or an equivalent of the following measures:
 - 3.8.6.1 Modification of work assignments for the remainder of the shift so that there are no additional exposures to H₂S; and/or
 - 3.8.6.2 Replacement by another qualified worker; and/or

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3.8.6.3 Continuation of normal duties with the requirement that any job that has the potential for H₂S exposure must be done in a pressure-demand airline respirator or designated non-emergency SCBA.

3.8.7 The owning department must determine the most appropriate method(s) to ensure that personnel who were exposed to 50 ppm H₂S or greater are protected from future exposures.

3.8.8 Precautions must be taken to prevent any replacement qualified worker(s) from being exposed to H₂S.

3.9 Competencies and Training

3.9.1 MPC Employees

3.9.1.1 Training is conducted according to the HESS Training Matrix.

3.9.1.2 Training records are maintained by the Learning and Development Services.

3.9.1.3 Training includes the basic Hazard Communication training as defined in the site's Hazard Communication policy (ADM-3).

3.9.2 Contractor Employees

3.9.2.1 H₂S hazards are communicated to contractors and visitors through safety orientation, contractor safety training, process safety overviews, safety data sheets, signs and labels, and the safe work permitting process.

3.9.2.2 Only those contractor employees who have completed the GBR site-specific contractor safety training program at the safety council, which includes information about the hazards of H₂S, are able to gain access to areas of the plant where exposure to H₂S can occur.

3.10 Assurance

3.10.1 As a minimum in order to assure the effectiveness of this exposure control program, the following shall be verified through an annual self-assessment:

3.10.1.1 Employees are receiving the required H₂S training.

3.10.1.2 Employees and contractors are wearing, as required, an acceptable personal H₂S monitor and that assigned monitors are being bumped / calibrated as required by the manufacturer.

3.10.1.3 H₂S alarm events are being reported and investigated as required.

3.10.1.4 Employees are aware of the tasks in their work areas that require the use of respiratory protection to prevent H₂S exposures.

3.10.1.5 Employees are participating in the identification / prevention of H₂S exposures and appropriate management support is given to the use of engineering solutions / controls for mitigating H₂S exposures.

4.0 **Definitions**

4.1 **Breathing Zone:** The volume surrounding a worker's nose and mouth from which the worker draws breathing air over the course of a work period. This zone can be pictured by inscribing a sphere with a radius of about 10 inches centered at the worker's nose. **Note:** Because of this 10-inch distance, it is acceptable for a personal H₂S detector to be worn on the side of a safety hat, but not at the back of a safety hat.

4.2 **Immediately Dangerous to Life or Health (IDLH):** Any atmosphere that poses an immediate hazard to life or produces immediate, irreversible, or debilitating effects on health. IDLH values are established by the National Institute for Occupational Safety and Health (NIOSH). IDLH level

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for H2S is 100 ppm.

- 4.3 **OSHA Ceiling Limit:** Federal OSHA has established an acceptable ceiling concentration of 20 parts per million (ppm) in 29 CFR 1910.1000 Table Z-2.
- 4.4 **OSHA Peak Limit:** Federal OSHA has established an acceptable maximum peak concentration above the acceptable ceiling concentration for an 8-hour shift of 50 ppm in 29CFR1910.1000 Table Z-2. 29CFR1910.1000(b) states an employee's exposure to a substance listed in Table Z-2 shall not exceed at any time during an 8 hour shift the acceptable ceiling concentration limit, except for a time period, and up to a concentration not exceeding the maximum duration and concentration allowed under "acceptable maximum peak above the acceptable ceiling concentration for an 8-hour shift". The allowable time period for hydrogen sulfide above the ceiling (20 ppm) but below the maximum peak (50 ppm) is 10 minutes once, only if no other measurable exposure occurs for that shift.
- 4.5 **SCBA:** Self-Contained Breathing Apparatus operating in a pressure-demand mode.
- 4.6 **Short-Term Exposure Limit (STEL):** 15 ppm, as measured over a 15-minute period, per compliance with MPC Occupational Exposure Limit (OEL).
- 4.7 **Time-Weighted Average (TWA):** An eight-hour time weighted average of 10 ppm, per compliance with MPC OEL.

5.0 References

- 5.1 OSHA 29 CFR 1910.1000 Table Z-2
- 5.2 Marathon Petroleum Corporation – Corporate HES&S Standard HLT-2002 *"Hydrogen Sulfide Exposure Control Program"*
- 5.3 Marathon Petroleum Corporation – Refining Standard Practice RSP-1701-000 *"H2S Exposure Control Program Minimum Requirements"*

6.0 Attachments

- 6.1 Attachment A – Incidental (Loaned) Use of Personal H₂S Monitors
- 6.2 Attachment B: Galveston Bay Refinery H₂S Detector Assignment Form Marathon Personnel
- 6.3 Attachment C: APR Use Request Form

7.0 Revision History

Revision Number	Description of Change	Written by	Approved by	Revision Date	Effective Date
0	Original Issue. Consolidated site procedures that replaces GBR-HESS-SM-05 and RSW-0011-TC under MOC 64941.	L. E. McCleave	V. J. Meeks	9/5/2019	9/30/2019

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Attachment A – Incidental (Loaned) Use of Personal H₂S Monitors

1. A personal H₂S Monitor can save your life →
2. The instrument provides an immediate audible alarm and flashing lights) whenever potentially hazardous levels of hydrogen sulfide (H₂S) gas is present.
3. H₂S, in high concentrations, can be deadly. It can also quickly paralyze your sense of smell leading you to believe the danger has gone away.
4. You are being issued a monitor that has already been turned on and has been bump tested and calibrated for you. The instrument is ready to use.
5. Wear the monitor at all times while on site, even when in the cab of your truck. Failure to do so will result in your removal from the site and possibly your privileges to return.
6. The monitor must be clipped in your breathing zone and must not be covered up by outer clothing. Breathing zone is defined as 10 inches from your nose. Wearing on the side of a safety hat is acceptable but required to be shoulders forward.
7. If the monitor alarms, immediately shut-down any material transfer (loading / unloading) operations but leave equipment in place then return to the control room and report the alarm to operations. Your permit to work is no longer valid and a new permit must be obtained in order to return to the area.
8. You may be asked to provide a statement to be included in an incident report. In addition, if your exposure exceeded the levels permitted by the U.S. Occupational Safety and Health Administration (OSHA), you will be asked to report to first-aid to be examined by an EMT.
9. Please sign below acknowledging your receipt and understanding of this information.



**DON'T FORGET TO RETURN YOUR MONITOR
BEFORE YOU LEAVE THE SITE!**

Name (Print)

Signature

Date

Blanchard Refining Company LLC	Galveston Bay Refinery	
Title: SM-5 H2S Exposure Control	Doc Number: RSW-000049-GB	Rev No: 0

Attachment B – Galveston Bay Refinery H2S Detector Assignment Form Marathon Personnel



**Galveston Bay Refinery
H2S Detector Assignment Form
Marathon Personnel**

*** Please direct any questions or concerns to GBR Safety Repair Department ext. 2-1530.*

- L&D will authorize for new employees after they have completed the required training.
- Replacement of lost detectors will require the employee's supervisor authorization.
- Replacements for broken or expired detectors **do not** require supervisor authorization.

Request Type (*Circle One*):

Initial Assignment Replacement Monitor Loaner Return

Requested By: _____ Date: _____

MO#: _____ Employee Number: _____

Supervisor: _____ Location/Unit: _____

Reason for request: (for replacement requests, describe what happened to previous monitor).

If Monitor is Being **Replaced**- Serial Number of OLD Monitor: _____

<p>*NEW Serial Number of Monitor Assigned: _____</p>

Employee Signature: _____

Supervisor Signature (*Loaners/Lost Detectors*): _____

L&D Authorization (*Initial Assignment*): _____

Blanchard Refining Company LLC	Galveston Bay Refinery	
Title: SM-5 H2S Exposure Control	Doc Number: RSW-000049-GB	Rev No: 0

Attachment C – APR Use Request Form

Requestor: _____ Date Submitted: _____

Job Title Affected: _____ Task: _____

Task Description:

Industrial Hygiene Sampling Data:

Sample Number	Result

Sample Number	Result

Statistical Analysis for OEL with the Proposed Respiratory Protection Factor:

Exceedance Fraction: _____

95% Upper Confidence Limit: _____

Interpretation of Results:

Corporate Refining Approval Process Complete (check when complete) Date: _____

 Safety Supervisor Date

 Area Supervisor Date

 IH/Safety Professional Date

Date of Approval: _____