

APPENDIX D

**OVERVIEW OF SAFETY AND ENVIRONMENTAL
MANAGEMENT SYSTEM**

Liberty Development

Overview of the Safety & Environmental Management System (SEMS) Program

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ACRONYMS

AB	Accrediting board
API	American Petroleum Institute
ASP	Audit Service Provider
ATP	Authorization to Proceed
BOP	Blowout preventer
BSEE	Bureau of Safety and Environmental Enforcement
CAP	Corrective action plan
CFR	Code of Federal Regulations
DIMS	Drilling Information Management System
DPP	Development and Production Plan
EP	Exploration Plan
EPA	U.S. Environmental Protection Agency
EPP	Employee Participation Plan
FPS	Floating Production System
HAK	Hilcorp Alaska, LLC
ISO	International Organization for Standardization
JSA	Job Safety Analysis
LD	Liberty Development
LDPI	Liberty Drilling and Production Island
LO/TO	Lock
MOC	Management of Change
OCS	Outer Continental Shelf
PI&Ds	Piping and Instrumentation Diagram
PSSR	Pre-start-up safety review procedure
PTW	Permit to work
RA	Risk Assessment
RP	Recommended practice
SEMS	Safety and Environmental Management System
SOP	Standard Operating Procedure
SWA	Stop Work Authority
UWA	Ultimate work authority

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Introduction

Intent

Safety and environmental management enhances operational performance, protection of personnel and property, and the protection of the environment by reducing the probability and/or severity of uncontrolled releases and other undesirable events (API RP 75, 1.2.2.m). The owner(s), operator, and contractor management each have their own responsibility to protect the environment as well as the safety and health of their workforces (API RP 75, 1.2.2.h).

The intent of Hilcorp Alaska, LLC's (HAK's) Safety and Environmental Management System (SEMS) program is to promote safety and environmental protection by ensuring personnel comply with company policies and procedures as well as applicable regulations (30 CFR 250.1901).

SEMS applies to oil exploration and production activities in the Outer Continental Shelf (OCS). Contract companies working on behalf of HAK are required to operate in accordance with HAK's SEMS program.

SEMS-specific definitions can be found at the end of this document.

Scope

The HAK SEMS program applies to the seven wells at Northstar Island which are drilled in state waters and extend into the OCS. BSEE jurisdiction starts from the master valve and extends downhole on Northstar Island.

The HAK SEMS program will also apply to the Liberty Development (LD) in OCS waters. This includes the project design, construction, operation, maintenance and decommissioning of the offshore facilities.

Section 1 – General Management Program Principles

Policy

Application of the HAK SEMS policy to the LD will be endorsed by top management.

Goals, Performance Measures, and SEMS Programs

Top management is responsible for: establishing safety and environmental objectives, goals, and performance measures; committing to continuous improvement; achieving objectives and goals at each relevant function and level of organization; and, specifying the means and timeframes by which they are to be achieved.

The initial goal is to apply the SEMS program during design and construction and subsequently for operations and maintenance. The performance of this goal will be measured by third-party audit(s) following management endorsement. Top management will provide the implementation means and timeframes throughout the life of the LD.

Continuous Improvement

HAK endorses continuous improvement which will systematically advance the LD's plant, process, people, and performance. Continuous improvement methodologies and tools enhance operating performance through defect identification, measurement, and elimination. Continuous improvement goals and achievements will be discussed annually in the Top Management Review of the HAK SEMS program.

Management Representative(s)

HAK representatives who are responsible for establishing, implementing, and maintaining the SEMS program are appointed by top management. During the annual Top Management Review, the management representative(s) reports on the system's performance. The primary and secondary management representatives' names, mailing addresses, email addresses and phone numbers have been provided to the National SEMS Coordinator (BSEE NTL No. 2011-N09).

Regulatory and Code Compliance

HAK adheres to applicable industry codes, practices and standards which are useful in the design, fabrication, installation, layout, operation, inspection, testing, and maintenance of its OCS facilities.

Communication

A goal of HAK's internal communication program is to effectively communicate safety and environmental objectives, goals, and performance measures to LD employees and contractors. HAK's internal communication methods will allow SEMS information to be transmitted to the various levels and functions within the organization. External communication often relates to the safety and environmental

aspects of SEMS. In addition, any person may report to BSEE any hazardous or unsafe working condition on any HAK facility engaged in OCS activities.

Training

Section 7 in this -Overview describes how suitably trained and qualified personnel are employed to carry out varying aspects of the SEMS program. Management utilizes the expertise of personnel in identifying safety hazards, environmental impacts, optimizing operations, developing safe work practices, developing training programs, and investigating incidents.

Process, Mechanical, and Facility Design Information

Mechanical Integrity and Quality Assurance are discussed in Section 8 of this Overview. Human factors are considered in the design and implementation of the HAK SEMS program. Management of safety hazards and environmental impacts is an integral part of the design, construction, maintenance, operation, and monitoring of the LD.

Audits

Periodic audits will ensure the HAK SEMS program is effectively executed and maintained.

Management Review

The SEMS program is reviewed by top management annually. It is top management's responsibility to determine if the HAK SEMS program is, and continues to be, suitable, adequate, and effective. The review will address the possible need for changes to policy, objectives, and other elements of the program in light of program audit results, changing circumstances, and the commitment to continuous improvement. The observations, conclusions and recommendations of the review will be documented.

Section 2 – Safety and Environmental Information

Safety and environmental information for OCS facilities will be continually compiled and maintained.

Safety Information

The LD's process, mechanical, and facility design information will be retained for the life of the facility. In conjunction with the initial Hazard Analysis, the following Process Design and Mechanical and Facility Design information will be compiled, reviewed, and determined to be consistent with applicable consensus codes and standards in effect at the time the design was prepared. Human factors will be considered.

Process Design Information

- Process flow diagrams or Piping and Instrumentation Diagrams (PI&Ds)
- Upper and lower limits (temperature, pressure, flow and composition, energy/material balance)

Mechanical and Facility Design Information

- Piping and instrument diagrams
- Electrical area classification
- Equipment arrangement drawings
- Relief system
- Description of alarms, shutdown system
- Well control systems
- Fire protection system
- Emergency evacuation procedures
- Materials of construction
- Equipment and piping specifications
- Corrosion prevention systems
- General adherence to API RP 14J (*Recommended Practices for Design and Hazard Analysis Offshore Production Facilities*)

Environmental Information

The HAK environmental program addresses water quality, air quality, waste management, wildlife, spill response, archeological cultural resources and other related environmental media. Personnel with the appropriate expertise track developing regulations and interpret their applicability to the LD. Any regulatory changes impacting the LD are communicated to affected personnel.

Section 3 – Hazards Analysis

Hazard Analyses

The purpose of the hazards analysis is to identify, evaluate, and where unacceptable, reduce the likelihood and/or to minimize the consequences of uncontrolled releases and other safety or environmental incidents. Liberty will be designed in accordance with API RP 14J, *Recommended Practice for Design and Hazards Analysis for Offshore Production Facilities* (latest ed.).

The initial hazards analysis for Liberty will begin June 2015 and will be performed in an orderly and systematic manner utilizing the following recommended practices:

- API RP 14J *Recommended Practice for Design and Hazards Analysis for Offshore Production Facilities, Section 7.5 Hazards Analysis Methods.*
- API RP 14C, *Recommended practice for analysis, design, installation and Testing of Basic Surface Safety Systems on Offshore Production Platforms*
- API RP 75 *Recommended Practice for Development of a Safety and Environmental Management Program for Offshore Operations and Facilities 3.3.1 – Hazards Analysis – Initial Analysis.*
- ASTM F1166-95, *Standard Practices for Human Engineering Design for Marine Systems, Equipment, and Facilities*, or other applicable codes.

Special attention will be given to the changes made to the design and of the design team of the LD, taking into consideration: the remoteness and environmentally sensitivities of the location; the equipment arrangement; and, the operating procedures and practices, including simultaneous operations. Findings requiring resolution prior to startup or requiring immediate attention will be clearly identified.

The analysis team will be comprised of people knowledgeable in engineering, operations, design, process safety, environmental issues, and other specialties, as appropriate. At least one person will be proficient in the hazards analysis methodology used. This multi-disciplinary team performs the analysis and addresses the following:

- Hazards of the construction and operation;
- Previous incidents related to the construction and operation, including an incident that resulted in noncompliance or civil or criminal penalties;
- Control technology applicable to the construction and operation;
- Technical and operational changes since the previous Hazard Analysis;
- A qualitative evaluation of the potential impacts to the human and marine environments, if the control technology failed; and,
- Human factors.

Recommendations from the hazards analysis will be resolved and documented. Note: A single hazards analysis may be performed to fulfill the requirements for simple and nearly identical facilities which may be applied after verifying site-specific variations are documented in each SEMS program element.

Periodic Analyses

A periodic review (5 - 10 years) will be scheduled to conduct a hazards analysis review to verify the most recent hazards analysis actually reflects the current process. Updates will be made when needed and findings will be communicated to employees. The analysis team will be comprised of a team with the qualifications described above.

Analysis Report

The findings of the hazards analysis will be presented in a written report that describes the identified hazards and the recommended mitigation measures. Qualitative assessments of the severity of the findings may be made as appropriate.

All hazards and follow-up actions will be communicated to affected personnel. If resolution before startup is stipulated, or when immediate action is required, such action must be taken or the hazardous conditions must be remedied.

A complete hazards analysis report, including updates will be kept on file for the life of the LD.

Job Safety Analysis

A Job Safety Analysis (JSA) is used to identify and mitigate risks to personnel associated with their job activities. A JSA which applies to all personnel involved with the job, will be prepared, conducted, and approved for identified OCS activities. JSAs will remain on LDPI for a minimum of 30 days. Subsequently, JSAs may be stored offsite (where they can be easily retrieved if requested by BSEE) for a minimum of two years.

A JSA identifies, analyzes, and records the following:

- The steps involved in performing a specific job;
- The existing or potential safety, health, and environmental hazards associated with each step; and,
- The recommended action(s) and/or procedure(s) that will eliminate or reduce these hazards, the risk of a workplace injury or illness, or environmental impacts.

The immediate supervisor of the crew performing the job onsite will conduct the JSA, sign the JSA, and ensure that all personnel participating in the job understand and sign the JSA. The Ultimate Work Authority (UWA) will approve and sign all JSAs before personnel start the job. For recurring jobs, the UWA may determine an individual JSA for each job is not required if there are no changes to personnel, procedures, equipment, and the environmental conditions associated with the job.

HAK will verify that all personnel including contractors are trained in accordance with the requirements (30 CFR 250.1915) prior to performing a job.

A work authorization or permit to work (PTW) system will also be in place to systematically identify the hazards associated with planned tasks by applying control and mitigation measures, so the task or activity can be performed safely, without incident and loss of primary containment. The work permit will provide the following:

- Identification of work activities or tasks;
- Systematic identification and assessment of the hazards associated with work activities or tasks;
- Control measures established to eliminate or mitigate the hazards
- Definition and communication of accountabilities and responsibilities to personnel engaged in permitted work activities;
- Approval of the JSA by the supervisor or the person in charge of the work activities and tasks;
- Verification that all personnel involved in the work permitting process are trained and qualified;
- Verification that the all information above information has been communicated to all personnel involved in the work activities or tasks; and
- Ensures sufficient control over the return to normal operations.

Section 4 – Management of Change

The HAK Management of Change (MOC) procedure outlines the process followed to identify and control hazards associated with changes and to maintain the accuracy of process and safety information in accordance to 30 CFR 250.1912 and API RP 75.

The MOC procedure analyzes safety, environmental and health considerations in the change process with a holistic approach to minimizing risks to affected personnel and processes. The review team involved in MOCs will be defined by the MOC Team Leader, and will be dependent upon the type and scope of the MOC.

Significant changes to SEMS operating procedures will be documented by the MOC process, and communicated to affected personnel.

The MOC procedure addresses modifications associated with:

- Equipment
- Operating procedures
- Personnel, including contractors (Note: does not include routine personnel rotations, crew changes and advancements)
- Materials
- Operating conditions

The following are addressed in the MOC procedure:

- Review of the change prior to implementation
- The technical basis for the change
- Impact of the change on safety, health, and the environment
- Time period needed to implement the change
- Management approval for the change
- Communication and/or training of affected personnel (including contractors) prior to startup of affected part of the operation
- If procedures are impacted by the change they must be updated

Changes in Facilities

Changes to facilities for mechanical or process will be managed by the MOC program. These changes may include: produced fluids; process additives; product specifications; by-products or waste material; design; instrumentation and control systems; or materials of construction. Typical examples of change include:

- Construction of new production or process facilities
- New facility projects that involve production or process “tie-ins” to existing facilities, equipment reconfiguration or modification of existing facilities and or equipment

- Modification of existing facilities that results in changes to facility or equipment design, structural support, layout, or configuration
- Projects to increase facility throughput or accommodate different produced fluids
- Significant changes in operating conditions, including pressure, temperature, flow rate, or process conditions different from those in the original process or mechanical design
- Equipment changes, including the addition of new equipment or modifications of existing equipment. This will include any alarms, instrumentation and control schemes
- Modifications of the process or equipment that cause changes in the facilities pressure relief requirements. These will include through put, operation temperatures and pressures, equipment size, or the addition of equipment that may contribute to greater pressure relief requirements
- Bypass connections around equipment that is normally in service
- Operations outside the scope of current written operating procedures, including start-up, normal shut down, and emergency shutdown
- Changes made in the process or mechanical design or in operating procedures that result from a hazards analysis performed as per Section 3 of the HAK SEMS program
- Introduction of a new or different process chemical which have not been previously approved
- Changes in facilities may include changes that would not necessarily appear on a simplified flow diagram, including construction equipment and temporary connections or replaced components that are “not in kind” such as:
 - Replacement equipment or machinery that differs in specifications for the original equipment or previously approved modifications
 - Temporary piping, connections, pipe repairs, or hoses
 - An alternate supply of process materials, catalysts, or reactants, such as temporary tanks or drums located at the facility
 - Temporary electrical equipment or utility connections, other than for emergency situations
 - Modifications to drilling diverter systems that have not been previously approved
 - Modifications to blowout preventers (BOPs) that have not been previously approved
 - Modifications to drilling top drives that have not been approved

Note: Changes during drilling, workovers and well recompletion will be addressed during the approval process for these operations.

Section 5 – Operating Procedures

Application of the SEMS program to the LD will include drafting written operating procedures which will enhance efficient, safe, and environmentally sound operations.

Operating procedures will be maintained electronically and easily accessible to operators at all times. Any operator new to Liberty must review the area operating procedures pertinent to the area he/she is working prior to commencing work.

The Liberty operating procedures will be reviewed for accuracy as stated in the procedure (based on complexity/risk) or when changes are made to the affected process. These changes will be documented and communicated to affected personnel and updated in the controlled document repository.

The operating procedures will provide instructions for sound operations consistent with protecting the safety of the operators and the environment in which they operate, including as appropriate:

- Initial start-up and start-up following a turnaround or an emergency shutdown;
- Normal start-up/operations/shutdown;
- Emergency operations;
- Temporary operations;
- Simultaneous operations;
- Bypassing and flagging out-of-service equipment;
- Operating limits and consequences of deviation;
- Identification and control of chemical properties and hazards;
- Management of chemical inventory;
- Prevention of chemical exposure, special or unique hazards; and,
- Human and marine impacts identified through a hazards analysis.

Contractor Operating Procedures

Contractors may use their own Standard Operating Procedures (SOPs) in their work practices. In such cases, the SOPs will be reviewed to ensure the procedures are meeting the requirement of the HAK SEMS program for conducting safe and environmentally sound activities.

Section 6 – Safe Work Practices and Contractor Selection

Safe Working Practices

HAK safe work practices, policies and procedures at a minimum comply with all applicable federal rules and regulations concerning safe work practices. Safe work practices will be developed for all personnel, including contractors. These procedures are designed to minimize risks associated with operations, maintenance, modifications and simultaneous operations:

- Opening pressurized or electrical equipment
- Lock Out / Tag Out (LO/TO) of electrical and mechanical energy
- Hot work and other work involving ignition sources
- Confined space entry
- Crane operations
- Temporary Out of Service of Subsurface Safety Systems

The first four activities above require a permit to work be completed in addition to job safety analysis, pre-job planning and safety meetings that are specific to address the inherent risks involved in these types of tasks. Safe working practices for crane operations will be derived from API RP 2D – Recommended Practices for the Operation and Maintenance of Offshore Cranes.

When needed, HAK will reference API RP 75 - Appendix B, to assist in the development and implementation of safe work practices, codes and standards which are not covered in the existing HAK Safety Program.

Rules and regulations will be monitored for any updates or changes with potential impacts to the HAK Safety Program. Any revisions to the HAK Safety Program will be documented and communicated as needed.

Control of Hazardous Materials

Toxic or hazardous material specifications, inventories, separation, confinement, and handling will be determined, documented, and communicated to appropriate personnel.

Contractor Selection

Application of the HAK SEMS program will include contractor selection criteria to ensure contractors are knowledgeable, experienced, and skilled in safe work practices and able to perform their jobs in a safe and environmentally sound manner.

After a contractor is selected, HAK will:

- Document the contracted employees are knowledgeable, experienced and skilled in the work practices necessary to perform their jobs in a safe and environmentally sound manner in accordance with the HAK SEMS program. Additionally, the contractor's written safe work

practices or adoption of applicable sections of the HAK SEMS program will be verified prior to beginning work at the facilities.

- Perform periodic reviews to evaluate the performance of contractor employees and verify their obligations are fulfilled.
- Maintain an injury and illness log for two years related to the contractor's work in the operating area. This information will be included on Form BSEE-0131.
- Inform contractors of known hazards at the facility where the contractors are working including, but not limited to: fires, explosions, slips, trips, falls, other injuries, and hazards associated with lifting operations.
- Implement safe work practices to control the presence, entrance, and exit of all contract employees in operating areas.

Section 7 – Training

The SEMS training program ensures all employees working the LD understand their roles and responsibilities and work in a safe and environmentally sound manner.

The HAK Training Plan consists of three components:

- Core Compliance Safety, Environment and Health Training
- Employee Skills and Knowledge Training
- Project/Position Specific Safety and Health Training

A training matrix identifies training requirements and frequencies for HAK field personnel. Contractors will be required to demonstrate their training meets the skills and knowledge of position requirements found in API RP 75 by submitting a training matrix and/or other related training requirements along with the submission of the Contractors Safety Management System.

Initial Training

Initial training will be required to ensure individuals assigned to operate and maintain the facility possess the required knowledge and skills to carry out their roles and responsibilities, including startup and shutdown.

The training program will address the following:

- 1) Operating procedures (250.1913)
- 2) Safe work practices (250.1914)
- 3) Emergency response and control measures (250.1918)
- 4) Stop Work Authority (250.1930)
- 5) Ultimate Work Authority (250.1931)
- 6) Employee Participation Program (250.1932)
- 7) Reporting unsafe work conditions (250.1933)
- 8) How to recognize and identify hazards and how to implement JSAs (250.1911)

Periodic Training

Periodic training will be conducted to maintain understanding and adherence to the current operating procedures and will include drills to verify adequate retention of the required knowledge and skills.

Communication

Communication requirements will be in place to ensure personnel are informed and trained when changes are made to the SEMS program which impacts their responsibilities. Training and/or notice of a change will be conducted prior to personnel operating the facility, as required by the HAK MOC procedure.

Contractor Training

Contractors will be required to train their personnel in the work practices necessary to perform their jobs in a safe and environmentally sound manner. The training provided to contract personnel will include applicable site-specific safety and environmental procedures and rules pertaining to the facility and the applicable provisions of emergency action plans. This applies to contractors performing operating duties, maintenance or repairs, turnarounds, major renovations, or any other specialty work at Liberty.

Contractors providing incidental services unrelated to operations such as janitorial work, food and drink services, laundry, delivery, and other supply services will be trained to perform their jobs in a safe and environmentally sound manner. They will also receive training in transportation safety, emergency evacuation and other applicable safety and environmental procedures.

HAK will verify contractor's training program using various methods which may include audits of the contractor's environmental health and safety programs, training matrices, and periodic and unannounced observation of contractor's work to verify their ability to operate and perform their duties in a safe and environmentally conscious manner.

Section 8 – Assurance of Quality and Mechanical Integrity of Critical Equipment

HAK will ensure procedures have been developed and implemented for critical equipment associated with Liberty. This equipment must be designed, fabricated, installed, tested, inspected, monitored, and maintained in a manner consistent with appropriate service requirements, manufacturer's recommendations/specifications and/or industry standards.

HAK's overall quality assurance strategy requires conformance at the beginning of the project and becomes part of the overall project execution plan and maintenance program. The quality assurance strategy will carry over into the operating and maintenance procedures and management of change. These procedures will include:

- **Design** – Facilities will be designed in accordance with generally accepted engineering practice and recommended practices. Human factors will be considered and implemented during the design phase of any project.
- **Procurement** – Will be facilitated as a cooperative effort between the field and office levels of the organization. This process will be managed and documented by the HAK purchasing process.
- **Fabrication** – Review of specifications for critical equipment will be performed per project in accordance with the specifications outlined in the design and procurement processes of this element.
- **Installation** – A procedure will be developed per project to ensure checks and inspections are established and implemented prior to start-up to verify the installation of critical equipment is consistent with the design specifications and manufacturer's instructions. Modification – MOC procedures are in place to ensure modifications are specified for the applications, and equipment for which they have been intended for.
- **Maintenance** – The maintenance program will include testing and inspection of critical equipment to ensure sustained mechanical integrity. The maintenance program will be structured to enhance safety and environmental protection. Specifically, the maintenance program will include:
 - Procedures and work practices to maintain the mechanical integrity of equipment
 - Training of maintenance personnel in the application of the procedures, relevant hazards, and safe work practices
 - Quality control procedures to verify that maintenance materials, spare equipment and parts meet design specifications
 - Procedures to review all changes in facilities according to the HAK Management of Change procedures

Testing and Inspection

Testing, inspection, calibration and monitoring programs for critical equipment will be designed and implemented to maintain safe and environmentally sound operations. Procedures identify the technology used to ensure continued alignment with the recommended testing protocol outlined by 30 CFR 250, generally accepted industry standards, and manufacturer's specifications. Increased inspection and testing may be recommended when necessary.

Application of the HAK SEMS program to the LD will include:

- Listing critical equipment and systems subject to inspection and testing. The list will specify the method and interval of testing and inspection, acceptable limits and criteria for passing the test or inspection
- Testing and inspection procedures following commonly accepted standards and codes (i.e. API 510 – Pressure Vessel Inspection Code: Maintenance Inspection, Rating, Repair, and Alteration)
- Documenting completed test and inspection results. Pressure tests and inspection documentation will be retained. Documentation will include the following information:
 - Identify date of the inspection or test
 - Name, position and signature of personnel performing the test
 - Serial number or other identifier of the equipment on which the inspection was performed
 - Description of the test or inspection to be performed
 - Corrections of deficiencies associated with equipment and systems that are outside of the manufacturers recommended limits. Corrections must be made before further use of the equipment and system
 - Results of the inspection or test
- Developing procedures to document and correct critical equipment deficiencies or operations outside acceptable limits
- Developing a system for reviewing and authorizing changes in tests and inspections
- Auditing of the testing, inspection and maintenance program to ensure continued compliance with applicable programs and procedures

Contractors

Contractors will be required to have programs in place to ensure quality control of all their critical equipment.

Section 9 – Pre Start-up Reviews

The HAK SEMS program includes a “pre-start-up safety review procedure” (PSSR) to prevent harm to personnel, process or the environment. The commissioning process for Liberty will require a PSSR to confirm:

- Construction and equipment are in accordance with specifications.
- Safety, environmental, operating, maintenance, and emergency procedures are in place and are adequate.
- Safety and environmental information is current.
- Hazards analysis recommendations have been considered, addressed and implemented as appropriate.
- Training of operating personnel has been completed.
- Programs to address management of change and other elements of SEMS are in place
- Safe Work Practices are in place.

Section 10 – Emergency Response and Control

The HAK SEMS program will ensure emergency response and control plans are in place and ready for immediate implementation. The plans will be validated by drills and exercises carried out in accordance with a schedule defined by the SEMS training program (30 CFR 250.1915).

The SEMS emergency response and control plans will include:

Emergency Action Plans - Written action plans assigning authority to appropriate qualified personnel for initiating response efforts. These plans will also include agency reporting and notification requirements and comply with applicable government regulations.

Emergency Control Center - An emergency control center will be designated for Liberty with access to the Emergency Action Plans, Oil Spill Contingency Plans, Well Control and Blowout Contingency Plans, and other safety and environmental information

Training and Drills - Training and drills, including emergency response and evacuation, will be conducted periodically for all personnel (including contractors) as required by the HAK SEMS training program (30 CFR 250.1915) to ensure personnel can effectively carry out their roles and responsibilities as outlined in the applicable response plans.

Section 11 – Investigation of Incidents

The HAK SEMS program includes an Incident Investigation Procedure which will be followed for any incident. In addition to actual incidents, any situation which has been determined to have the potential for serious impacts to worker safety or the environment will reviewed and investigated as appropriate.

Incident investigations will be conducted by an investigation team comprised of operations, engineering, safety personnel and a contractor representative, depending upon the type and severity of the incident. These individuals have knowledge of safe operating procedures and investigative techniques. The investigation team may also include other personnel with specific skills or abilities which would enhance the effectiveness of the incident investigation.

Investigations are reviewed and shared in an effort to prevent similar incidents. Corrective actions are based upon incident reviews and findings.

Section 12 – Audit of Safety and Environmental Management System

The SEMS program will be audited by an accredited ASP according to the requirements of 30 CFR 250.1920 and API RP 75. The audit process will meet or exceed the criteria in Sections 9.1 through 9.8 *Requirements for Third-party SEMs Auditing and Certification of Deepwater Operations COS-2-03 or its equivalent*.

ASP Qualifications

- The audit team lead/members will be an employee, representative or agent of the audit service provider (ASP) and will meet or exceed the qualifications, competency and training criteria contained in Section 3 and Sections 6-10 of *Qualification and Competence, Requirements for Audit Teams and Auditors Performing Third-party SEMS Audits of Deepwater Operations*, COS-2-01.
- The ASP must be accredited by a BSEE-approved accrediting board (AB); and,
- The ASP must perform an audit in accordance with 30 CFR 250.1920(a).

The audit will be comprehensive and include all elements of the HAK SEMS program and also identify safety and environmental performance deficiencies.

The audit plan and procedures must meet or exceed all the recommendations included in API RP 75 section 12 (as specified in 30 CFR 250.198).

The audit plan will specifically address the following items:

General

HAK (and contractors with SEMS) will establish and maintain an audit program and procedures for the periodic audit of the safety and environmental management program in order to determine if the program elements have been properly implemented and maintained and to provide information on the results of the audit to management. The audit program and procedures will cover:

- The activities and areas to be considered in audits.
- The frequency of audits
- The audit team
- How audits will be conducted
- Audit reporting

Sufficient resources will be committed by management to the audit in order to meet its intended scope.

Scope

The scope of the audit will include the following:

- Determine if the management program elements of Sections 2 through 11 are in place.
- Determine if the management program elements incorporate the required components.
- Testing system to effectiveness of the management program. The system should include a review of records and documentation as discussed in Section 13, private interviews of various levels and disciplines o personnel, and facility inspections.
- Identify areas of potential improvement in the safety and environmental management program.

Audit Coverage

When selecting facilities to audit consideration will be given to common features to obtain a cross-section of practices for the facilities operated. At least one facility will be audited. If sufficient deficiencies are identified in the effectiveness of any of the SEMS elements, the test sample size shall be expanded for that program element.

Audit Plan

Prior to the audit a written audit plan will be developed. The audit plan will be designed to be flexible to permit changes in emphasis based upon information gathered during the audit and to effectively use resources. The audit plan will be submitted to BSEE at least 30 days before the audit and will include the following elements, as applicable:

- Audit objectives and scope
- Audit criteria
- Identification of the audit team
- Identification of the facility to be audited
- Identification of the program elements to be audited
- Procedures to be used in the audit
- Confidentiality provisions and requirements
- The audit report contents and format to be used, the expected date of issue and the distribution of the audit and results

Audit Frequency

The first audit will be accomplished within 2 years of the initial implementation of the HAK SEMS program and subsequent audits will not exceed 3 years.

Audit Team

The audit will be performed by an ASP as described in 30 CFR 250.1921. The ASPs qualifications will be included in the audit plan. The HAK SEMS Coordinator will ensure the ASP utilizes competent personnel who are knowledgeable in the process and operations involved. The ASP selection criteria can be found in 30 CFR 250.1921.

Audit Report

The audit team will prepare an audit report, dated and signed by the team to be submitted to BSEE within 60 days of the audit completion date. The audit report will include the findings, observations, identified deficiencies conclusions of the audit. Other information in the audit report may include:

- Identification of the facilities audited;
- Identification of the program elements audited;
- Summary of objectives and the scope of the audit;
- Criteria against which the audit was conducted;
- Period covered by the audit and the dates the audit was performed;
- Identification of the audit team;
- Statement of the confidential nature of the audit contents;
- Distribution list for the audit report;
- Summary of the audit process, including any obstacles encountered during the process; and,
- Audit findings and conclusions

The findings and conclusions of the audit will be provided to the SEMS Coordinator who will establish a system to determine and document the appropriate response to the findings and to assure satisfactory resolution.

Within 60 days of the audit completion date HAK will submit a corrective action plan (CAP) to BSEE. The CAP will include the name and job title of the personnel responsible for correcting the identified deficiencies. The audit report will be retained for 6 years and made available to BSEE upon request.

Section 13 – Documentation and Recordkeeping

HAK SEMS documents and records are maintained in a systematic and controlled manner. They are ordered, readily identifiable, retrievable, and legible. Records are dated and document revisions are to be noted, as applicable. Records and documents are maintained for a period of six years, unless otherwise noted (see below).

Documents include procedures, manuals, and other information needing review and revision on a periodic basis. Documents are expected to change as operating conditions evolve.

Records are static information that capture given conditions for a specific timeframe. Records do not change. Examples are: inspection and training records, reports, and test data. Specific BSEE Forms can be downloaded from the BSEE website at <http://www.bsee.gov/About-BSEE/Procurement-Business-Opportunities/BSEE-OCS-Operation-Forms/BSEE-OCS-Operation-Forms.aspx>.

Records	Retaining Period	Content	Recipient
SEMS Audits	6 years	Summary of audit findings, observations, identified deficiencies and CAP, and conclusions.	BSEE
JSAs	30 days on-site or until the MODU is released. 2 years for BSEE	Summary of the steps involved in performing a specific job; the existing or potential hazards; and the recommended action(s) and/or procedure(s) that will eliminate or reduce these hazards.	BSEE (upon request)
MOC	2 years	Technical records of medications associated with equipment, operating procedures, personnel changes, materials, and operating conditions	BSEE (upon request)
Injury/Illness Logs	2 years	All information pertinent to Form BSEE-0131	BSEE (upon request)
Contractor's Safety Policies & Procedures Evaluations	2 years	Documentation of each contracted employee's expertise to perform his/her job and a copy of the contractor's safety policies and procedures.	BSEE (upon request)
Stop Work Authority (SWA)	30 days on-site or until the MODU is released. 2 years for BSEE	Documentation of SWA reported and the decision to resume activities, and training and reviews required.	BSEE (upon request)
Employee Participation Plans (EPP)	2 years	Documentation of employees' participation in the development and implementation of the SEMS program.	BSEE (upon request)

Section 14 – Stop Work Authority (SWA)

In supporting the safe execution of work and to promote a culture of safety at work, personnel will have the responsibility and authority, without fear of reprisal, to stop work or decline to perform an assigned task when an immediate risk or danger exists. This includes any condition, activity, or practice in the workplace that could reasonably be expected to cause:

- Death or serious physical harm; or
- Significant environmental harm to:
 - Land;
 - Air; or,
 - Mineral deposits, marine, coastal, or human environment.

The person in charge of the conducted work is responsible for ensuring the work is stopped in an orderly and safe manner. Individuals who receive a notification to stop work must comply with that direction immediately. Personnel exercising the SWA will have discussions with co-workers, supervisors, and/or safety representatives to resolve any safety issues causing the imminent danger or risk. Work may resume when the individual on the facility with ultimate work authority (UWA) determines the imminent danger or risk does not exist or no longer exists.

Section 15 – Ultimate Work Authority

HAK will define who has the ultimate work authority (UWA) on a facility for operational safety and decision-making at any given time. The individual with ultimate authority will be clearly defined as the one who is in charge at all times and has final decision making authority. The UWA has a key role in ensuring the HAK SEMS program is implemented in a safe and environmentally sound manner. It should be noted the term “*individual*” is defined as an individual person or a particular position which will retain the UWA. The UWA is responsible for ensuring work activities conducted by employees, contractors, and subcontractors is compatible with the HAK SEMS program.

A visible posting system will ensure personnel know the assigned UWA, including when the UWA shifts to a different individual. Only a single individual has UWA at any given time.

The individual with UWA is authorized to pursue the most effective actions necessary he or she believes will mitigate and/or abate conditions or practices causing an emergency

Section 16 – Employee Participation Plan

The HAK Employee Participation Plan (EPP) encourages participation by HAK and LD employees as well as management to eliminate or mitigate safety hazards.

HAK will consult with its employees regarding the application of the SEMS program to ensure LD employees understand and are involved in updating the SEMS program. This program will engage employees in the field and in the office, bridging a significant gap between those actually performing OCS operations and those planning, managing, and/or monitoring the operations.

Section 17 – Reporting Unsafe Working Conditions

Any person may report to BSEE any hazardous or unsafe working condition, possible violation or failure to comply with any Federal laws or regulations. A report of unsafe working conditions (30 CFR 250.193) may be made by:

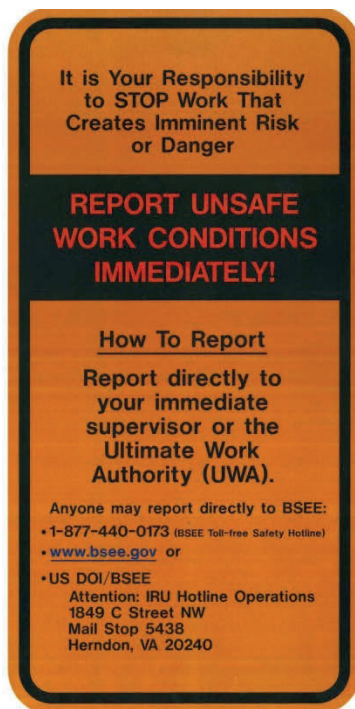
- Calling the BSEE toll free hotline: 1.877.440.0173
- Internet at: www.bsee.gov
- Mail: US DOI/BSEE, 1949 C Street NW, Mail Stop 5438, Herndon, VA 20240 (Attention: IRU Hotline Operations)

Include the following in the report:

- Your name, address & telephone number (if you do not want to remain anonymous)
- Specific concern, provision or Federal law, if known, potentially violated
- Any other applicable facts, data or information

When a possible violation is reported, BSEE will protect a person's identity to the extent authorized by law.

The sign below for reporting unsafe work conditions will be posted at the LD in a visible location(s) frequently visited by personnel (30 CFR 250.1933).



SEMS Definitions

Accreditation Body (AB) means a BSEE-approved independent third-party organization that assesses and accredits ASPs.

Audit Service Provider (ASP) means an independent third-party organization that demonstrates competence to conduct SEMS audits in accordance with the requirements of this subpart (30 CFR 250, Subpart S).

Corrective Action Plan (CAP) – a scheduled plan to correct deficiencies identified during an audit and that is developed by an operator following the issuance of an audit report.

Contractors – the individual, partnership, firm, or corporation retained by the owner or operator to perform work or provide supplies or equipment. The term contractor shall also include subcontractors. (API RP 75, Appendix D, D.1)

SEMS Critical Equipment – equipment and systems that prevent or mitigate uncontrolled releases of hydrocarbons, toxic substances, or other materials that may cause environmental or safety consequences. (30 CFR 250.1916)

SEMS “Facilities” – include all types of offshore structures permanently or temporarily attached to the seabed (i.e., mobile offshore drilling units; floating production systems; floating production, storage and offloading facilities; tension-leg platforms; and spars) used for exploration, development, production, and transportation activities for oil, gas, or sulfur from areas leased in the OCS. Facilities also include DOI-regulated pipelines. (30 CFR 250.1911)

Safety and Environmental Management System (SEMS) – a management system used to evaluate safety and environmental aspects related to its business activities, manage environmental and safety performance and drive continually improvement. A management system includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources. SEMS is mandated by the BSEE through 30 CFR 250, Subpart S.

Ultimate Work Authority (UWA) means the authority assigned to an individual or position to make final decisions relating to activities and operations on the facility.