SAFETY ENVIRONMENTAL MANAGEMENT SYSTEM (SEMS) STANDARDS MANUAL

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1.0 PURPOSE

The purpose of this Safety Environmental Management System (SEMS) Standards Manual is to document the requirements of and set the minimum expectations for Nexen Petroleum U.S.A. Inc.'s (Nexen) compliance with 30 CFR 250 Subpart S, Safety and Environmental Management System for its Gulf of Mexico (GoM) Operations.

2.0 SCOPE

The scope of this SEMS Standards Manual is to properly align with API RP 75 criteria and reference 30 CFR 250 Subpart S management metrics and reporting requirements, where applicable, for the operation and maintenance of Nexen facilities to ensure safe and environmentally sound offshore operations.

This document houses the 13 standards that make up Nexen's SEMS. There are supporting documents, including plans, procedures, and programs, that align with and provide relevant "how to" details for executing the components of GoM SEMS.

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3.0 ACRONYMS AND DEFINITIONS

AQMI:

Assurance of Quality and Mechanical Integrity

BOEMRE:

Bureau of Ocean Energy Management, Regulatory, and Enforcement

Contractor:

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.

Critical Equipment:

Equipment and other systems determined to be essential in preventing the occurrence of or mitigating the consequences of an uncontrolled release. Such equipment may include vessels, machinery, piping, blowout preventers, wellheads and related valving, flares, alarms, interlocks, fire protection equipment, and other monitoring, control, and response systems.

EAP:

Emergency Action Plan

EEP:

Emergency Evacuation Plan

Employee:

A person who is employed by the organization or by a contractor to the organization when that person is under the day-to-day control of the organization.

ERP:

Emergency Response Plan

Facility:

Wells, structures, living quarters, drilling and workover packages, process equipment, utilities, pipelines, and mobile offshore units (except as noted in RP 75 1.3.1.1).

Flag State:

The Government of the nation whose flag a vessel is entitled to fly.

GoM:

Gulf of Mexico

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Hazards Analysis:

The application of one or more methodologies that aid in identifying and evaluating hazards. Some sources that may be helpful in performing hazards analysis include References 1 and 2 in API RP 75, Appendix D and API RP 14J, *Recommended Practice for Design and Hazards Analysis for Offshore Production Facilities* (latest edition).

HSE&SR:

Health, Safety, Environment, and Social Responsibility

Human Factors:

The interaction and application of scientific knowledge about people, facilities and management systems to improve their interaction in the work place and reduce the likelihood and/or consequences of human error.

JSEA:

Job Safety and Environmental Analysis

Mobile Offshore Drilling Unit (MODU):

A vessel capable of engaging in drilling or well workover operations for the exploration or exploitation of subsea resources.

Mobile Offshore Unit (MOU):

A vessel which can be readily relocated to perform an industrial function related to offshore oil, gas, or sulphur exploration or exploitation. Such vessels include mobile offshore drilling units (MODUs), lift boats and other units involved in construction, maintenance (including the MOUs normally do not include vessels such as, supply vessels, standby vessels, anchor handling vessels, or seismic survey vessels.

MoC:

Management of Change

MS:

Management System

Nexen:

Nexen Petroleum U.S.A. Inc.

NTL:

Notice to Lessees

OCS:

Outer Continental Shelf

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Operator:

The individual, partnership, firm, or corporation having control or management of operations on the leased area or a portion thereof. The operator may be a lessee, designated agent of the lessee(s), or holder of operating rights under an approved operating agreement.

Owner:

The individual, partnership, firm, or corporation to whom the United States issues a lease and has been assigned an obligation to make royalty payments required by the lease.

Personnel:

Direct employee(s) of the operator and contracted workers who are involved with or affected by specific jobs or tasks.

Process:

The systems for production, use, storage, handling, treatment, or movement of hydrocarbons, sulphur, or toxic substances.

PSM:

Process Safety Management

PSSR:

Pre-startup Safety Review

QP:

Quality Programs

ROSRP:

Regional Oil Spill Response Plan

Safety and Environmental Management System (SEMS):

A management system designed to promote safety and environmental protection during the performance of offshore oil, gas, and sulphur operations.

SEI:

Safety and Environmental Information

SEMS Standard:

1 of the 13 sections of the SEMS, i.e. – Hazard Analysis, Management of Change, and Audit of SEMS.

Simultaneous Operations:

Two or more of the following activities: production, drilling, completion, workover, wireline (except routine operations as defined in 30 CFR 250.91), and major construction operations.

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SWP:

Safe Work Practice

Uncontrolled Release:

An accidental release of hydrocarbons, toxic substances, or other materials that is likely to develop quickly, be outside the anticipated range of normal operations, present only limited opportunity for corrective action, require any action to be in the nature of an emergency response, and could result in serious environmental or safety consequences.

USCG:

United States Coast Guard

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4.0 SEMS ROLES AND RESPONSIBILITIES

Role	Description
President	Ensure that the SEMS Compliance Policy is signed. Annual Statement of Compliance
Vice President – Operations and Production	Overall responsibility for the implementation of the 30 CFR 250 Subpart S. Assess information provided by management review and direct actions to continually improve the SEMS and reduce risk in the workplace.
Vice President, GM, Directors, Managers, and Department Heads	Responsibility for the implementation and maintenance of the supporting SEMS plans, procedures, and processes for the reporting of SEMS data and improvements for their business unit as listed in annual individual performance plans.
HSE&SR Regional Manager	Overall direction and leadership for HSE&SR MS Standards, Plans, Programs, and Safe Work Practices implementation and compliance for the division. This includes the individual SEMS standard and its supporting documentation.
Process Safety Specialist	Ensure the SEMS standards that also support Process Safety Management (PSM) activities are clearly integrated.
Regulatory Compliance Manager	Act as the point of contact for BOEMRE notifications and submissions of NTL-related documentation/completed reports.
Department Managers/ Superintendents/Supervisors	Execution of SEMS plans, procedures, and processes, including the reporting of SEMS data and improvements for their business unit.

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Role	Description
Employees	Execution of SEMS plans, procedures, and processes, including the reporting of SEMS data and improvements as stated in annual individual performance plans.
Contractors	Execution of SEMS plans, procedures, and processes, including the reporting of SEMS data and improvements as stated in the contract.

Note	All personnel are subject to potential planned and unplanned interviews during audits.

5.0 SAFETY ENVIRONMENTAL MANAGEMENT SYSTEM STANDARDS

5.1 General SEMS Overview Standard

30 CFR 250 Subpart S contains requirements and expectations that extend beyond API RP 75. Nexen SEMS standards address both API RP 75 and Subpart S criteria.

5.1.1 SEMS General Overview Objectives

The objective of this SEMS Standards Manual is to identify, address, and manage safety and environmental hazards that arise during the design, construction (or decommissioning), startup, operation, inspection, and maintenance of new or existing Nexen facilities.

The intent of Nexen is to follow established guidance for its SEMS plans, programs, and procedures, allowing for GoM management to assess information presented by technical or field operations personnel and continuously improve and optimize offshore facility operations in accordance with GoM regulations.

The general responsibilities for SEMS development, support, continued improvement, and overall success are met with the incorporation of the following metrics:

a) Adopt annual goals, performance measures, and accountability statements for ongoing implementation and management.

b) Appoint management representatives to support each SEMS standard and align individual responsibilities with supporting SEMS plans, procedures, and programs within their role responsibilities.

c) Promote the use of SEMS plans, procedures, and programs as part of a “toolbox” to promote safety and environmental protection processes as well as enhance operational efficiency.

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d) Ensure that Nexen's safety and environmental policies and organizational structure reflect the responsibilities, authorities, and lines of communication for implementation and ongoing management improvement of the SEMS business processes.

e) Utilize personnel with expertise in identification of safety hazards, environmental impacts, operations optimization, and development of safe work practices, training programs, and investigating incidents.

f) Ensure that offshore facilities are designed, constructed, maintained, monitored, and operated in compliance with 30 CFR 250 Subpart S, applicable industry codes, standards, and recommended practices.

g) Ensure that management of safety hazards and environmental impacts are an integral part of the design, construction, maintenance, operation, and monitoring of each offshore facility.

h) Ensure that suitably trained and qualified personnel are employed to carry out all aspects of the SEMS plans, procedures, and programs.

i) Ensure that the SEMS standards, supporting documentation, and business systems are maintained and kept up to date by means of periodic audits to ensure effective performance.

j) Ensure that safety and environmental management enhances operational performance, protection of personnel and property, and protection of the environment by eliminating, mitigating or controlling or reducing the probability and/or severity of uncontrolled releases and other undesirable events.

k) Ensure that human factors are considered in the design and implementation of Nexen's SEMS business processes.

l) Review this SEMS Standard Manual at least annually to ensure that it is suitably adequate and effective for Nexen GoM operations.

5.1.2 SEMS Standards Commitment Statement

The Safety and Environmental Commitment Statement is signed by the Company President to demonstrate his support of operational procedure requirements, critical safe work practices, emergency response action plans and SEMS business systems.

5.1.3 Communication of SEMS standards

Nexen requires that a copy of the SEMS standards be available at each offshore facility and/or GoM office location. Communication of SEMS standards follow the role specific criteria listed in the Nexen Training Plan.

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5.1.4 Reporting and Deliverables

This SEMS Standards Manual has particular reporting and deliverable requirements based on the 30 CFR 250 subpart S and API RP 75 criteria.

Refer to each individual SEMS standard for individual reporting and deliverable requirements.

5.1.5 Contractors

Contractors working for Nexen are not required to have a separate SEMS, but must be familiar with Nexen's SEMS standards, as well as any additional supporting safety and environmental policies, procedures, and practices that are consistent with Nexen's SEMS.

5.2 Safety and Environmental Information Standard

This standard corresponds with 30 CFR 250.1910 and API RP 75 Section 2.0.

In compliance with BOERME regulations, Nexen requires that a compilation of safety and environmental information be developed and maintained for any facility subject to the SEMS program. This information will be the basis for successful SEMS standard implementation.

Safety & Environmental information shall include:

a) Information that provides the basis for the SEMS standard, including the requirements for hazard analysis

b) Process Design Information

c) Mechanical and facilities design information

5.2.1 Process Design Information

Process design information will include, as appropriate, a simplified process flow diagram and acceptable upper and lower limits for items such as:

a) Temperature

b) Pressure

c) Flow

d) Composition

This information shall be retained for the life of the facility.

5.2.2 Mechanical and Facilities Design Information

5.2.2.1 *Necessary Information*

Mechanical and facilities design information should include, as appropriate:

a) Piping and instrument diagrams

b) Electrical area classifications

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c) Equipment arrangement drawings

d) Design basis of the relief system

e) Description of alarm, shutdown, and interlock systems

f) Description of well control systems

g) Design basis for passive and active fire protection features and systems and emergency evacuation procedures

This information should be retained for the life of the facility.

5.2.2.2 *Mobile Offshore Drilling Units Information*

Nexen shall ensure that the mechanical and facility design for mobile offshore drilling units (MODU) should conform to the applicable requirements of the vessels flag state (i.e., Liberia) and applicable US vessel certifications.

5.2.2.3 *Non-existent Mechanical and Facilities Design Information*

Where the original mechanical and facilities design information no longer exists, Nexen will ensure the suitability of equipment design for intended use is verified and documented.

5.2.2.4 *New Facility and Major Modifications Information*

Nexen shall steward to ASTM F1166-95 human factors engineering when design and installation of new facilities and major modifications are undertaken.

5.3 Hazards Analysis Standard

This standard corresponds with 30 CFR 250.1911 and API RP 75 Section 3.0

In compliance with BOERME regulations, Nexen requires that analyses be put in to place to identify and mitigate potential hazards in offshore facilities.

Nexen follows a Hazard Analysis Process Plan for offshore facility-level hazard analyses and a Job Safety and Environmental Analysis (JSEA) program for task-level hazards.

Nexen offshore facilities include various types of offshore structures permanently or temporarily attached to the seabed that is used for exploration, development, production, and transportation activities for oil, gas, or sulphur from areas leased in the GoM.

5.3.1 Hazard Analysis Methodology

Nexen's Hazard Analysis for Production Platforms program follows one or more of the recommended methodologies such as those in API RP 14J – *Recommended Practice for Design and Hazard Analysis for Offshore Production Facilities*. As a minimum, Hazards Analysis requirements for production equipment may be met by ensuring that the facility conforms to the requirements of API RP 14C – *Recommended Practice for Analysis, Design, Installation, and Testing of Basic Surface Safety Systems on Offshore Production Platforms*.

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5.3.2 Hazard Analysis for Mobile Offshore Drilling Units

Nexen's Hazard Analysis for MODU program will require an exchange of information between the operator and the owner of the MODU. It requires the MODU contractor to develop a rig specific safety case for each unit as well as go through Nexen's Rig Integrated Acceptance Testing and Commissioning. Nexen's review of lease/site-specific hazard analyses and contractor operational documents shall follow the Hazard Analysis for MODU program to ensure that the MODU is not exposed to conditions beyond its designed limits.

Nexen uses its Risk Management Program (RMP) to address hazards analysis in offshore drilling and completions operations.

5.3.3 Job Safety and Environmental Analysis (JSEA)

JSEA is a task-level hazard analysis and is designed and utilized to provide additional protection to personnel working on Nexen facilities. JSEA will be conducted for activities identified in the JSEA Program.

Nexen has implemented a JSEA Program for Outer Continental Shelf (OCS) activities identified in this SEMS standard. This program requires:

a) A copy of the most recent JSEA be at the job site, readily accessible to employees.

b) The JSEA to identify, analyze, and record:

   i. Steps involved in performing a specific job.

   ii. Existing or potential safety and health hazards associated with each step.

   iii. Recommended action(s)/procedure(s) that will eliminate or reduce these hazards and the risk of a workplace injury or illness.

c) The supervisor of the person in charge of the task must approve the JSEA prior to the commencement of work.

5.4 Management of Change Standard

This standard corresponds with 30 CFR 250.1912 and API RP 75 Section 4.0.

In accordance with BOEMRE regulation, Nexen has established procedures to identify and control hazards associated with change and to maintain the accuracy of safety information. Occasionally, changes, both temporary and permanent, must be made to normal operating procedures in order to increase efficiency, improve operability and safety, accommodate technical innovation, and implement mechanical improvements. Management of Change (MoC) Procedures that apply to different business operations (i.e. Drilling or Production) are in place in order to communicate and mitigate the risk involved in making these changes.

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5.4.1 MoC Action

A MoC must be completed for the following changes:

a) Equipment

b) Operating procedures

c) Personnel changes (including contractors)

d) Materials

e) Operating conditions

f) Facility changes. Changes in facilities arise whenever the process or mechanical design is altered. Changes in facilities may also occur as a result of the changes in produced fluids, process additives, product specifications, by-products or waste products, design inventories, instrumentation and control systems, or materials of construction.

g) An MoC is not required for changes involving replacement in kind, such as replacement of 1 component by another component with the same performance capabilities.

5.4.2 MoC Review and Implementation

Initiating an MoC begins the change review process. This review is conducted through a team-based approach. After changes have been made, employees must be informed of and trained in the changes prior to start-up.

5.5 Operating Procedures Standard

This standard corresponds with 30 CFR 250.1913 and API RP 75 Section 5.0.

In accordance with BOEMRE regulation, Nexen has established requirements for written facility operating procedures designed to enhance efficient, safe, and environmentally sound operations. In addition to facility operating procedures, Nexen must also develop and implement safe and environmentally sound work practices for identified hazards during operations and the degree of the hazard presented. These procedures include the job title and reporting relationship of the personnel responsible for each of the facilities' operating areas.

5.5.1 Operating Procedure Periodic Review and Frequency

When changes are made in facilities, operating procedures must be reviewed as part of the MoC procedure (refer to Section 5.4 Management of Change).

In addition, operating procedures will be reviewed as part of Pre-startup Safety System Review (PSSR) processes to verify that they reflect current and actual operating practices. Changes to operating procedures are reviewed by facility supervision documented and communicated to appropriate personnel.

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5.6 Safe Work Practices Standard

The standard for SEMS Safe Work Practices corresponds with 30 CFR 250.1914 and API RP 75 Section 6.0.

In accordance with BOEMRE regulation, Nexen has established and implemented Safe Work Practices (SWPs) designed to minimize the risks associated with operating, maintenance, and modification activities and the handling of materials and substances that could affect safety and the environment. These SWPs normally apply to multiple locations. However, site specific work practices may be necessary. Nexen has standards in place for the selection and performance evaluation of contractors.

Contractors must have their own written SWP's that will be reviewed by Nexen. If necessary, contractors may adopt sections of Nexen's SWP's and this agreement which must be documented.

5.6.1 Development of Safe Work Practices

Nexen uses API RP 14 J – Process Hazard Analysis to determine how industry-applicable upstream oil and gas SWP's apply to its GoM offshore production platform facilities and related activities.

Nexen uses other industry-recognized HA processes, such as JSEA, to identify tasks where additional SWP's are necessary to the scope of work or activity type.

If an SWP needs to be developed in written form due to the nature and risk of the activity then the following minimum information shall be included in the format of a SWP:

a) Purpose

b) Scope

c) General Guidelines

d) Key Reference Documents and Regulations

5.6.2 Approval of Safe Work Practices

Nexen uses an electronic document review and electronic signature process to approve its SWP documents.

5.6.3 Contractor HSE Management

Nexen has a Contractor HSE Management Plan that includes:

a) Selection of Contractors

b) Contractor Duties

c) Periodic performance evaluation of contractors

d) Maintenance of a contractor injury/illness log

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e) Informing contractors of a known hazard

f) SWPs to control the presence, entrance, and exit of contract employees in operational areas.

5.7 Training Standard

This standard for (SEMS) Training corresponds with 30 CFR 250.1915 and API RP 75 Section 7.0 and establishes requirements for the following:

a) Operating Procedures (API RP 75 5.0 and 30 CFR 250.1913)

b) Safe Work Practices (API RP 75 6.0 and 30 CFR 250.1914)

c) Emergency Response and Control Measures (API RP 75 10.0 and 30 CFR 250.1918)

5.7.1 Types of Training

Nexen's SEMS compliant curriculum materials and courses are listed in the Training Plan and include the requirements for the following types of training:

a) Initial

b) Recurring

5.7.2 Communication

The SEMS Training Plan describes how:

a) Nexen communicates changes in SWPs, operating procedures, and the emergency response and control measures.

b) Training requirements due to these changes.

c) Training will be verified and/or how personnel and contractors will otherwise be informed of the change before they are expected to operate the facility.

5.7.3 Contractor Training

The Contractor HSE Management Program describes how Nexen will verify that the contractors are trained in the work practices necessary to perform their jobs in a safe and environmentally sound manner, including training on operating procedures, SWPs, and emergency response and control measures.

5.8 Assurance of Quality and Mechanical Integrity of Critical Equipment Standard

This standard corresponds with 30 CFR 250.1916 and API RP 75 Section 8.0.

Nexen has established assurance of quality and mechanical integrity (AQMI) programs to ensure that Nexen's owned or operated "critical equipment" on its offshore production platforms installed for process operations is fit for service.

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5.8.1 Critical Equipment for offshore Production facilities.

As a minimum, this AQMI standard applies to the following offshore production facility equipment and systems used to prevent or mitigate uncontrolled releases of hydrocarbons, toxic substances, or other materials that may cause environmental or process safety consequences. The list of equipment, as a minimum, includes:

a) Pressure and Atmospheric Vessels

b) Storage Tanks

c) Piping Systems

d) Relief Devices and Systems

e) Safety Shutdown and Alarm Systems

f) Process Control Devices

g) Electrical Systems

h) Pumps and Compressors

i) Firefighting Equipment

5.8.2 AQMI for Equipment Manufactured under contract

Nexen's Quality Assurance Team collaborates with each vendor to develop a Quality Plan specific to the equipment being manufactured as part of the Nexen Well Delivery and Contracting process. As part of the contracting agreement, applicable Quality Programs (QPs) for the specific equipment establish Hold/Witness/Monitor/Document Reviews during the manufacturing process to ensure the equipment meets applicable API Specifications prior to equipment being placed into service. Each QP meets the API Q1 Quality Programs for the Oil and Gas Industry. Nexen utilizes accredited third party inspectors that are certified as per API, ASNT-TC-1A, American Society for Quality, and/or DNV to ensure adherence to the QP's, vendors are complying with their own Quality Management Systems and relevant API specifications.

5.8.3 AQMI for Vendor supplied or leased equipment

Nexen Quality Assurance Team develops an Inspection Test Plan with each vendor to set the criteria for inspection of rental or leased equipment in accordance with industry standards and manufacturer recommendations. Nexen utilizes accredited third-party inspectors that are certified as per API, ASNT-TC-1A, American Society for Quality and/or DNV to ensure vendors are complying with their own Quality Management Systems and Nexen Inspection Test Plan.

5.9 Pre-startup Review Standard

This standard corresponds with 30 CFR 250.1917 and API RP 75 Section 9.0.

In accordance with BOEMRE regulation, Nexen has an established program to outline how Nexen follows a commissioning process that includes a pre-startup

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safety and environmental review for new and significantly modified facilities to confirm that the following criteria are met:

a) Construction and equipment are in accordance with applicable specifications.

b) Safety, environmental, operating, maintenance, and emergency procedures are in place and are adequate.

c) Safety and environmental information is current.

d) Hazards analysis recommendations have been implemented as appropriate.

e) Training of operating personnel has been completed.

f) Programs to address management of change and other elements of this subpart are in place.

g) SWPs are in place.

5.9.1 Pre-Startup Review Approach

Nexen maintains procedures to ensure that:

a) Facilities are constructed according to applicable regulations and standards.

b) Materials used and equipment installed during construction meet design specifications. The design requirements will refer to specific technical standards as defined by regulatory bodies and the manufacturers of the utilized materials and/or equipment.

5.9.1.1 *New Facility*

The Project Team Leader or designate shall be responsible for ensuring the Nexen Pre-startup Review has been completed to ensure conformance with approved drawings and data for all construction related to the installation of a new facility.

5.9.1.2 *Existing Facility*

The Field Technician and Field Foreman are responsible for deciding which checklists to complete and both should agree that the facility is safe for start-up for all modifications/construction activities related to work on an existing facility.

5.9.1.3 *Review Form*

The Pre-startup Review Form is suitable for new facilities and major or minor modifications, such as the addition of new production equipment, minor piping additions, or when making process tie-ins to existing facilities. There are several sections in the detailed checklist, and only those that apply must be completed.

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5.9.2 Pre-startup Review Process

5.9.2.1 *Operating Procedures*

Operating procedures are developed, tested, and approved prior to the commencement of operations that cover all stages of the location operations, such as:

a) Initial start-up

b) Normal operations

c) Emergency shutdown

d) Planned shutdown

5.9.2.2 *Emergency Response*

Prior to start-up, emergency response procedures will be implemented.

5.9.2.3 *Safety and Environmental Information*

Prior to start-up, safety and environmental information (SEI) will be updated in accordance with the SEI guidelines.

5.9.2.4 *Hazard Analysis*

Prior to startup, hazard analyses recommendations have been addressed, documented, and implemented as appropriate according to the Hazard Analysis procedure.

5.9.2.5 *Management of Change*

Prior to start-up, the facility or operations will be entered into the MoC program and that the MoC Support Team identified.

5.9.2.6 *Safe Work Practices*

Prior to start-up, a SWP plan or procedure will be in place for the facility or location.

5.10 Emergency Response and Control Standard

Nexen shall ensure that the requirements of applicable emergency response and control plans are in place and are ready for immediate implementation listed by 30 CFR 250.1918 and API RP 10.0. This standard includes Emergency Action Plans (EAPs), Offshore Facility Emergency Evacuation plans (EEPs), Station Bill Plans, and Hurricane Preparedness Plans.

Each plan includes the use of Emergency Control Centers and Training in appropriate incident command responsibilities.

The scheduling of drills and exercises in support of these plans is established annually. Drills are conducted to practice emergency notification and response to a

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realistic, but hypothetical incident as per Nexen's Emergency Response Plan (ERP) drill schedule.

It is the responsibility of all Nexen employees and contractors to follow EAPs for their facility.

5.10.1 Emergency Action Plans

Nexen has developed and implemented EAP's that are designed to be either region-wide or facility-specific in focus. A response effort may require the use of a combination of the various plans and will depend on the facility's location and type of incident or issue. EAP's are written in accordance with the appropriate regulatory requirements.

5.10.2 Regional Emergency Response and/or Action Plans

The following is a summary of the regional plans that have been developed in accordance with Nexen policy and industry standards and practices. Employee and contractor involvement is both required and necessary.

5.10.2.1 *Emergency Response Plan*

The ERP is a comprehensive regional plan for responding to emergency situations or conditions and provides a system of communications, guidelines, and basic instructions. The ERP also provides a means for accounting for personnel, equipment, and other contracted resources in the field during and after an emergency.

5.10.2.2 *Regional Oil Spill Response Plan – Offshore GoM*

The Regional Oil Spill Response Plan (ROSRP) encompasses exploration, drilling, and production operations in the GoM. This plan ensures that personnel can appropriately respond to problems presented by accidental spills and releases of hazardous substances to the environment. The ROSRP provides information about companies that have been pre-designated to provide assistance in the clean-up operation of spills/releases, location, and availability of clean-up equipment and disposal of recovered substances.

5.10.2.3 *Hurricane Evacuation Plan*

The Hurricane Evacuation Plan provides guidance necessary to safely evacuate personnel to shore when a major storm approaches any Nexen facility. This plan provides information on actions to be taken by personnel during preparation for evacuation, during evacuation, and upon returning to the facility. Field personnel are responsible for the development and maintenance of the specific evacuation and shutdown procedures for their facility.

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5.10.3 Facility-Specific Plans

The following is a summary of the facility-specific plans that have been developed in accordance with Nexen policy and industry standards and practices. Complete copies of these plans are available on manned facilities/platforms and are maintained by the HSE&SR department. Drills are conducted in accordance with the United States Coast Guard (USCG) monthly schedule. Employee and contractor involvement is both required and necessary.

5.10.3.1 *Emergency Evacuation Plan*

The EEP is designed to provide facility and MODU personnel with facility-specific protection and evacuation guidance for fire, explosion, or other unplanned events as stated in the scope of this program. These EEPs provide facility-specific information on:

a) Personnel evacuation to a ‘safe harbor’

b) Use of equipment for the evacuation

c) The estimated time to complete the evacuation

d) The location of offset operators

EEPs are written for each manned platform and MODU on Nexen lease locations. The HSE&SR department assists in the development of the EEP internally and through the use of third-party consultants. MODU management is responsible for ensuring EEPs are communicated to facility personnel.

5.10.3.2 *Station Bill*

The Station Bill for manned facilities provides information on personnel responsibilities in the event of a fire, explosion, man overboard, and platform abandonment. The Station Bill is posted in the office building, living quarters, and other locations as required by the USCG. Employees, contractors, and visitors are required to be familiar with this Station Bill and their individual responsibilities in case of an emergency. It is maintained by the operator of the facility/MODU. The Station Bill provides the following information:

a) Equipment layout

b) Location of firefighting equipment

c) Life-saving equipment

d) Emergency shutdown stations

e) Automatic detection systems

f) Employee alarm systems

g) Intercom systems

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h) Personnel evacuation routes

i) Muster area

5.10.4 Employee Review of Emergency Plans

The above-listed plans must be reviewed with each affected employee upon assignment to the facility/MODU, annually thereafter (minimum), and whenever the employee's responsibilities under the plans change. Document the review of any emergency response plan and retain them in the facility's files. It is the person in charge's responsibility to document the review of the plans in their area.

This includes:

a) Drill schedule

b) Use of Emergency Command Center

c) Drill Pre-Planning

d) Post Drill Critique and analysis

5.11 Investigation of Incidents Standard

This standard corresponds with 30 CFR 250.1919 and API RP 75 Section 11.0.

This standard requires an investigation of incidents that are determined to possess the potential for serious safety or environmental consequences by facility management or BOEMRE.

Nexen requires all incidents that result in, or could reasonably have resulted in, a reportable event be investigated and documented according to the Event Reporting and Investigation Plan. To aid in this process, Nexen will:

a) Establish a process for reporting and investigating events that occur on-site or as a result of Nexen operations or work.

b) Ensure timely reporting and investigation of all incidents that resulted in, or could have reasonably resulted in a recordable injury, environmental release, or a catastrophic event.

c) Implement steps to prevent a recurrence of these events at all Nexen GoM facilities.

d) Continuously improve SEMS effectiveness based on incident findings.

5.11.1 Event Notification

It is essential that accidents or incidents be reported immediately as time delays may contribute to the distortion of the facts around the event and could interfere with required agency notification. Incident notification charts are listed in the Event Investigation Plan.

Any person witnessing or involved in an event are expected to immediately report it to their supervisor within 1 hour.

Electronic documents residing within the Nexen Document Management System are controlled.
All printed documentation is considered uncontrolled.

5.11.2 Event Investigation Team and Reports

Follow the requirements below when investigating and incident:

a) The Investigation Team size and make-up shall reflect the potential risk of the event, type, and severity of the incident. Third-party Lead Investigators may be used in high-risk events.

b) Completed investigation reports shall be reviewed by management in alignment with risk and severity of the Incident Investigation Report.

5.11.3 Communication of Event Findings

Nexen communicates its Incident Investigation Reports and the resultant Corrective Action Reports to affected personnel at the offshore facility through the use of safety meeting minutes, MoC meetings, and PSSR meetings, as well as published monthly HSE&SR Newsletters.

Safety alerts for significant incidents are issued to GoM personnel via email.

5.11.4 Event Follow-up

Nexen's standard for follow-up of Agreed-upon recommendations for incident corrective action is the use of the LEHS database. Individuals are assigned to action items and responsible for their completion.

5.12 Audit of SEMS Standard

Nexen conducts compliance audits of the SEMS in accordance with 30 CFR 250.1920 and API RP 75 Section 12.0. The SEMS Audit plan will be a comprehensive review of all 13 SEMS standards to evaluate compliance and to identify areas for improvement.

5.12.1 SEMS Audit Program Outline

These requirements outline frequency, scope, coverage, and the development of an audit plan. This is conducted through an Audit Team and requires a report be written at the end of the audit to outline changes and gaps in Nexen's SEMS.

5.12.2 SEMS Audit Scheduling, Report and Distribution

The SEMS Audit Team will notify BOEMRE 30 days prior to conducting the audit. The audit team will prepare an Audit Report that is dated and signed by the team. The Report contains the findings of the audit, as well as any information the Audit Team deems necessary to understand the audit. The report includes deficiencies identified and the plan to correct them including the responsible party and the timeline for completion.

The SEMS Audit Report is sent to management and a copy is submitted to BOEMRE 30 day after completion of the Audit.

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5.13 Records and Documentation Standard

Nexen has established a documentation system for the SEMS in compliance with 30 CFR 250.1928 to ensure that records and documentation are maintained in a manner sufficient to implement and manage the System.

5.13.1 Records and Document Control

The following requirements apply to SEMS documentation:

a) May be kept in either electronic or paper form.

b) Does not have to be retained in a separate file or binder, but can be integrated into the operators filing or document control system.

c) Must be dated, including revision dates, and be readily identifiable.

d) Must consider audit requirements when formatting, distributing, and filing the documents.

e) Are located and maintained in an orderly manner.

f) Are readily retrievable and protected against damage, deterioration, and loss.

g) Are periodically reviewed, revised as necessary, and approved for adequacy by authorized personnel.

h) Current versions of the documents are available at all locations where operations essential to the effective functioning of the safety and environmental system are performed.

i) Are retained for specific periods of time

j) Obsolete documents are promptly removed from all points of issue or otherwise assured against unintended use. Any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.

k) Confidential records and documentation are identified and properly handled.

5.13.2 Documentation

Various standards in the SEMS identify specific documentation requirements. In addition to those requirements, documentation should be sufficient to describe the core standards of the System and the interaction between the standards.

6.0 SEMS STANDARDS MANUAL DOCUMENT MAINTENANCE

6.1 SEMS Standards Manual Content Review

30 CFR 250.1909 (d) requires that the 13 SEMS standards be reviewed at least annually to determine if it continues to be suitable, adequate, and effective.

6.2 SEMS STANDARDS Manual Document Control

This SEMS Standards Manual document is stored in Nexen's Livelink system and the published / controlled version posted on Nexen's BPMS Webpage. Following

Electronic documents residing within the Nexen Document Management System are controlled.
All printed documentation is considered uncontrolled.

Nexen's Livelink document workflow review and approval processes will achieve the overall objective of storing the correct version and controlling edits and reviews.

7.0 REVISION NOTES

Revision	Section(s)	Description of Changes

Electronic documents residing within the Nexen Document Management System are controlled.
All printed documentation is considered uncontrolled.

APPENDIX A – REGULATORY REFERENCE DOCUMENTS

	General	Safety and Environmental Information	Hazards Analysis	Management of Change	Operating Procedures	Safe Work Practices	Training	QA and MI of CE	Pre-start-up Review	Emergency Response and Control	Investigation of Incidents	Audit of SEMS	Records and Documentation
API RP 75	X	X	X	X	X	X	X	X	X	X	X	X	X
30 CFR 250, Subpart S	X	X	X	X	X	X	X	X	X	X	X	X	X
30 CFR 250.198	X	X	X	X	X	X	X	X	X	X	X	X	X
30 CFR 250.1926												X	
API RP 14C			X		X								
API RP 14G							X						
API RP 14J	X	X	X						X				
API RP 2D							X						
API RP 49							X						
API RP 510								X					
API RP 55							X						
API RP 59							X						
API RP 76						X							
API RP T-1							X						
API RP T-2							X						
API RP T-4							X						
API RP T-6							X						
API RP T-7							X						
ASTM F1166-95		X											

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	General	Safety and Environmental Information	Hazards Analysis	Management of Change	Operating Procedures	Safe Work Practices	Training	QA and MI of CE	Pre-start-up Review	Emergency Response and Control	Investigation of Incidents	Audit of SEMS	Records and Documentation
JSEA			X										X
2 Safety and Environmental Information				X	X				X	X			
3 Hazard Analysis		X		X					X				
4 Management of Change				X	X			X	X				X
5 Operating Procedures				X			X						
6 Safe Work Practices							X		X				
7 Training									X	X			
8 QA and MI of CE				X									
10 Emergency Response and Control							X						
12 Audit of SEMS													X

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