



Safety Plan Guidelines

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These Guidelines have been issued effective from December 31, 2009 for the purposes of stakeholder consultation, and for reference by interested parties to assist in the transition to the new goal-oriented *Drilling and Production Regulations* applicable in the Nova Scotia offshore area. The draft Guidelines will be revised as necessary during this one year consultation time period based on feedback and experience gained.

Comments, suggestions and areas for improvement may be directed to:

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Canada Oil and Gas Drilling and Production Regulations
Newfoundland Offshore Petroleum Drilling and Production Regulations
Nova Scotia Offshore Drilling and Production Regulations

The Drilling and Production Regulations are published in three versions which contain slight differences in content and thus in section numbering. A thorough review is required to ensure a match of all references.

Foreword

The National Energy Board, Canada-Nova Scotia Offshore Petroleum Board and Canada-Newfoundland and Labrador Offshore Petroleum Board (the Boards) have issued this guidance to assist Operators in developing a **Safety Plan (SP)** as required by section 6 of the *Drilling and Production Regulations* (Regulations). In accordance with the Regulations, a SP must accompany an application for an authorization.

Operators may also find this guidance helpful when developing safety plans for other works and activities regulated by the Boards or in developing integrated Health, Safety and Environment Plans.

The Boards may develop or adopt guidance, standards and recommended practices to support and complement the Regulations, which they are tasked with administering. In all cases, the Boards' intent is to provide additional information and guidance to the Operator so that they may better understand the expectations of the Boards with respect to responsiveness to and compliance with the regulatory requirements.

The authority to issue guidelines and interpretation notes with respect to Regulations is specified by subsection 5.3 (1) of the *Canada Oil and Gas Operations Act*, subsection 156(1) of the *Canada-Nova Scotia Atlantic Accord Implementation Act* and subsection 151.1(1) of the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act* (the Acts).

In many instances, the guideline identifies a particular means or method toward achieving regulatory compliance. These means or methods may be based on a number of criteria:

- the mandatory requirements of the Regulations,
- the experience of the Boards in how compliance may be achieved, or
- industry best practice

It is important to note that guidelines are not statutory instruments, and the description of a means or method in the guidelines is not mandatory. The onus is on the Operator to comply with the Regulations and to be able to demonstrate to the appropriate Board the adequacy and effectiveness of the methods employed to achieve compliance.

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Acronyms and Definitions

Acronyms

ALARP	As Low As Reasonably Practicable
CAPP	Canadian Association of Petroleum Producers
CNSOPB	Canada – Nova Scotia Offshore Petroleum Board
C-NLOPB	Canada – Newfoundland and Labrador Offshore Petroleum Board
CSA	Canada Standards Association
HSE	Health, Safety & Environment
IADC	International Association of Drilling Contractors
ISO	International Standards Organization
MODU	Mobile Offshore Drilling Unit
NEB	National Energy Board
SMS	Safety Management System
SP	Safety Plan
WHMIS	Workplace Hazardous Materials Information System

Definitions

“Act”	Where reference is made to the <i>Act</i> , it means the Federal “Canada Oils and Gas Operations Act” (COGOA) unless otherwise noted.
“Acts”	The <i>Canada Oil and Gas Operations Act</i> , the <i>Canada-Nova Scotia Atlantic Accord Implementation Act</i> and the <i>Canada-Newfoundland and Labrador Atlantic Accord Implementation Act</i> .
“audit”	Systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled. (ISO 9000-2005 Quality management systems — Fundamentals and vocabulary)
“Board”	Means the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada-Nova Scotia Offshore Petroleum Board, or the National Energy Board as the case may be.
“document”	Means information and its supporting medium.
“hazard”	A possible source of harm, whether it be a major hazard identified in studies (e.g. fire and explosion), or an occupational hazard (e.g. hazardous chemicals, slips and trips)

"safety management system"	Means the portions of an Operator's management system dedicated to safety management, whether or not these management elements are incorporated in or separate from the overall management system.
"safety policy"	Means the overall intention and direction of an organization related to its safety performance as formally expressed by senior management.
"management system"	System as identified in section 5 of the Regulations, including elements to establish policy and objectives and to achieve those objectives.
"Operator"	Means an operator as defined in the Regulations
"record"	A document stating results achieved or providing evidence of activities performed (ISO 9000).
"Regulations"	<i>Drilling and Production Regulations</i> under the Acts

1 Purpose and Scope of Guidelines

The objectives of this guideline are two-fold, one of which is to assist an Operator to effectively develop a plan for safety in association with a proposed work or activity that would require an authorization.

The other objective is to assist the Operator to develop a plan that will demonstrate to the Board that they will manage the proposed work or activity safely (i.e. reduce risk to ALARP – see section 4.5.1). Pursuant to section 19 of the Regulations, Operators must take all reasonable precautions to ensure safety. Other safety-related requirements are present in the Acts, other applicable regulations and other parts of the Regulations. Pursuant to section 8 of the Regulations, the SP must set out the procedures, practices, resources, sequence of key safety-related activities and monitoring measures necessary to ensure the safety of the proposed work or activity.

Safety as used in the Regulations is considered to include safety of personnel, safety of the public, process safety and safety of the installation.

The scope of this guidance is limited to the Safety Plan (SP) and where guidance on general or specific safety matters has been developed elsewhere, these guidelines direct the reader to that guidance.

These guidelines may also be helpful to Operators developing safety plans for other types of work or activities not subject to the Regulations, such as geophysical operations or diving operations.

Finally, Operators developing integrated Health and Safety, or Health, Safety and Environmental Plans may also find this guidance helpful.

2 Regulatory Framework

Exploration for and development of petroleum resources in the frontier areas of Canada is regulated by three acts of the Federal parliament:

- *Canada Oil and Gas Operations Act (COGOA)*,
- *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act (NS Accord Act)*, and
- *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act (NL Accord Act)*.

For the two Accord Acts, created as part of the Atlantic Accord process, the provinces of Nova Scotia and Newfoundland and Labrador have promulgated companion acts:

- *Canada – Nova Scotia Offshore Petroleum Resources Accord Implementation Act (Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act, R.S.N.L. 1990, c. C-2)*.

In this guidance, where reference is made to the Acts, it means the Federal acts unless otherwise noted.

There may be other legislation that applies to operations in frontier areas.

Under Section 14 of COGOA, Section 149 of the NL Accord Act and Section 153 of the NS Accord Act, the Governor in Council may make regulations “*for the purposes of safety and the protection of the environment as well as for the production and conservation of petroleum resources.*” A number of regulations have been made in this regard.

For these guidelines, the federal and provincial versions of the *Drilling and Production Regulations*, hereinafter collectively referred to as the Regulations, describe the requirement for an SP and the elements that must be included in the that SP. The Regulations require that an application for authorization to conduct work or activities related to drilling or production operations be accompanied by a SP.

Operators should note that, where other regulations made under the Acts apply to matters of safety, the SP could address the requirements of those regulations for the purposes of consolidation, integration and effectiveness.

Drilling and Production Regulations

- 6. The application for authorization shall be accompanied by***
...(c) a safety plan that meets the requirements of section 8;

Operators are required to develop, and submit to the applicable Board, a SP that is in accordance with Section 8 of the Regulations:

Drilling and Production Regulations

- 8. The safety plan shall set out the procedures, practices, resources, sequence of key safety related activities and monitoring measures necessary to ensure the safety of the proposed work or activity and shall include***

- (a) a summary of and references to the management system that demonstrate how it will be applied to the proposed work or activity and how the duties set out in these Regulations with regard to safety will be fulfilled;*
- (b) a summary of the studies undertaken to identify hazards and to evaluate safety risks related to the proposed work or activity;*
- (c) a description of the hazards that were identified and the results of the risk evaluation;*
- (d) a summary of the measures to prevent, reduce or manage safety risks;*

- (e) a list of all structures, facilities, equipment and systems critical to safety and a summary of the system in place for their inspection, testing and maintenance;*
- (f) a description of the organizational structure for the proposed work or activity and the command structure on the installation, which clearly explains
 - (i) their relationship to each other, and*
 - (ii) the contact information and position of the person accountable for the safety plan and of the person responsible for implementing it;**
- (g) if the possibility of pack sea ice or drifting icebergs exists at the drill or production site, the measures to address the protection of the installation, including systems for ice detection, surveillance, data collection, reporting, forecasting and, if appropriate, ice avoidance or deflection; and*
- (h) a description of the arrangements for monitoring compliance with the plan and for measuring performance in relation to its objectives.*

Other sections of the Regulations are applicable to matters of and safety, including:

- Section 5 has a number of requirements related to management systems;
- Section 19 outlines the general duty requirements of Operators with respect to safety and environmental protection
- Safety-related requirements are present throughout Parts 3 to 10 of the Regulations.

Where the Operator has developed detailed procedures or work instructions (or detailed procedures or work instructions developed by their contractors and accepted by the Operator) to satisfy their statutory safety duties, the SP should summarize the content of these documents rather than repeat the content.

In addition to satisfying the expectation of the Regulations, the SP may be used to satisfy the legislative requirements of the Acts (e.g. the following COGOA requirements).

Canada Oil and Gas Operations Act

(5.02) The (Board) shall, before issuing an authorization for a work or activity referred to in paragraph 5(1)(b), consider the safety of the work or activity by reviewing, in consultation with the Chief Safety Officer, the system as a whole and its components, including its installations, equipment, operating procedures and personnel.

(5.11)(1) Subject to subsection (2), no authorization under paragraph 5(1)(b) shall be issued unless the (Board) has received, from the applicant for the authorization, a declaration in the form fixed by the (Board) that states that:

- (a) the equipment and installations that are to be used in the work or activity to be authorized are fit for the purposes for which they are to be used, the operating procedures relating to them are appropriate for those uses, and the personnel who are to be employed in connection with them are qualified and competent for their employment; and*
- (b) the applicant shall ensure, so long as the work or activity that is authorized continues, that the equipment and installations continue to be fit for the purposes for which they are used, the operating procedures continue to be appropriate for those uses, and the personnel continue to be so qualified and competent.*

The SP will assist the Board with its “consideration of safety” matters when reviewing an application for an authorization (section 5.02 COGOA) and set out for both the Board and the Operator the foundation upon which the Operator has signed the declaration of fitness. The SP should be used by the Operator to demonstrate that it has taken all reasonable and practicable steps to achieve safety for the proposed work or activity, taking into account the interaction of all components including structures, facilities, equipment, operating procedures and personnel.

3 Management System Linkage

A SP is a component of the Operator's management system, which should assure that the Operator appropriately manages safety when conducting a specific work or activity. Pursuant to subsection 8 (a) of the Regulations, the SP shall summarize and reference the management system that will be applied to the planned work to protect workers and to fulfill the duties set forth in the legislation and Regulations for a specific authorized activity.

Sections 5 and 18 of the Regulations require applicants and Operators to have in place a management system of sufficient size and complexity to manage the Operator's work or activities. Pursuant to subsection 5(1), the management system must integrate operations and technical systems with the management of financial and human resources to ensure compliance with the Act and the Regulations.

The Operator may determine the structure of the management system taking into account the purpose of the system and requirement elements as identified in section 5 of the Regulations. An Operator may have a separate Safety Management System (SMS), or manage the safety elements of its activity through a general management system. The structure and the scope of the management system may be broader than the requirements in section 5, but must meet those requirements.

For the safety related aspects of an Operator's management systems, Operators may refer to the "Canadian Standard for Occupational Health and Safety Management", CAN/CSA-Z1000-06. This intent of the standard is sound, and it's a useful tool for the development of safety management systems and associated plans.

The Operator's management system must include the arrangements for coordination among the owner of the installation, the contractors, the Operator and others, as applicable [paragraph 5(2)(j)]. The Operator is accountable for ensuring compliance with the Act and Regulations. Of note, paragraph 8(f)(ii) of the Regulations requires that the plan contain the name and position of the person accountable for the safety plan and of the person responsible for implementing the safety plan.

The SP may describe the links to the Operator's management system or some combination of the Operator's system and that of key contractors. For example, the Operator's safety management system would typically apply to an exploration-drilling program with regard to the assessment of hazards, the selection of contractors and overall project coordination. However, hazards specific to a drilling installation and the occupational safety of personnel onboard the drilling installation are usually managed by the drilling installation owner's safety management system, which is vetted and monitored by the Operator.

4 Content of the Safety Plan

4.1 General

The SP is an Operator's plan for the proposed project, the scope of which should include contractors and their personnel. The SP describes responsibilities and expectations for safety associated with an authorized activity.

An effective SP incorporates the following:

- Procedures, practices, resources, key safety-related activities and monitoring measures to ensure the safety of the proposed work or activity
- Means to comply with safety-related requirements of legislation (statutes and regulations),
- Safety measures identified through the hazard identification and risk evaluation process,
- Safety measures identified as part of a safety program needs assessment
- Safety commitments made as part of an application for exploratory drilling, and
- Safety commitments made as part of a development application.

The SP should serve as a summary and reference document that describes, and provides a road map to, all safety related processes and documents. It should summarize and refer to the safety management elements of the management system that apply to the activity. The SP is not intended to describe all details of an Operator's safety management system.

The Boards do not have specific requirements for the format of a SP. However, Operators should consider the following when organizing a SP:

- The SP document forms part of the management system and shall be consistent with the overarching management system.
- The SP must adequately address the requirements outlined in the Regulations.
- The SP Documents shall describe safety hazards, risks and mitigations that have been identified for those risks and will be reflected in the SP.
- For the production phase, the Development Plan includes commitments to safety which shall be reflected in the SP.

The legislation and regulations require that Operators address all of the aspects of planned work or activities that can have potential impacts on safety, whether they are specifically identified in these guidelines or not. Operators should be aware that an SP must be responsive to other sections of the legislation and the various related regulations as applicable.

Operators may have an integrated Health, Safety and Environmental Management System. Therefore, an integrated Health, Safety and Environmental Protection Plan may be submitted, but it must meet the requirements of sections 8 and 9 of the Regulations.

The SP should reflect the actual conditions encountered in the field. As such, the SP should be periodically reviewed and revised by the Operator to reflect field conditions once authorized operations commence. Revisions are to be submitted to the appropriate Board prior to implementation.

Operators should note that, pursuant to section 6 of the Regulations, the SP must accompany the application for an "authorization" but the SP is not explicitly "approved". The SP becomes part of the suite of information that the Board considers when making its decision whether to approve the application. The SP is therefore linked to the authorization (a statutory instrument) for compliance and enforcement purposes, as determined by the Board.

There may be some confusion between the SP as referred to in the Regulations versus what industry generally understands as a Safety Case document. In general, Safety Cases focus on the installation while SPs look more broadly at all aspects of the work or activity for which an Operator is seeking approval.

Nevertheless, the installation-specific aspects of the Safety Case have its place within the SP. The SP should explain the Operator's due diligence, overall coordination and oversight of the work or activity, as well as providing the installation specific information contained in a Safety Case. Consequently, in the case of a drilling operation using a Mobile Offshore Drilling Unit (MODU), Operators submit a valid and current Safety Case developed in accordance with the International Association of Drilling Contractors (IADC) HSE Case Guideline for Mobile Offshore Drilling Units (Issue 3.2.1 – May 1, 2009) or an equivalent level of information as part of their SP.

Just as SPs for drilling with a MODU can take advantage of an IADC HSE Case, Operator SPs for activities that involve marine vessels should align with and take advantage of the vessel's International Safety Management (ISM) certification and associated documentation. Operators should ensure that vessels have a valid and current ISM certificate, but must still ensure that project specific risks, which may fall outside the ISM system, are appropriately managed. SPs should reflect these expectations and may build on or, summarize and reference appropriate ISM documentation rather than repeat it.

4.2 Purpose and Scope of the Safety Plan

The Safety Plan should include statements that describe its purpose and the scope:

- The purpose statements should demonstrate how the Operator understands the relationship between the SP and the Operator's management system, the legal requirements, and the work to be completed.
- The scope statements should be both inclusive, describing what is covered, and exclusive, describing what is excluded. The scope should describe typical offshore and onshore work and activities (e.g. installations, vessels, support craft), as well as critical onshore support processes, including but not limited to logistics and program administration. The scope should be consistent with the scope described in the Application for Authorization (subsection 6(a) of the Regulations).

The SP is likely to be limited by the operational boundaries of the work or activity, but it may also be limited in time (temporal scope). The SP should identify the specific aspects of the planned work or activities to which the SP will be applied, including any particular limitations to its applicability. This should include, as applicable, work and activities related to pre-mobilization, mobilization, exploration, drilling, construction, installation, operations, decommissioning and abandonment, and post-abandonment.

The SP should serve as a reference document for all project personnel, so that they are aware of their responsibilities and what is expected of them concerning safety.

4.3 Safety Policy Statement

The Operator's management system and the SP are linked by the Operator's safety policy, which should form part of the core values of the Operator's management system (see paragraph 5(2)(a) of the Regulations).

The SP should include a safety policy statement that establishes the basic safety principles applicable to the planned work or activities to be conducted. This policy statement sets the tone for safety responsibility and required performance.

Typically, the safety policy defined in the Operator's management system would also be that which is applicable to the planned work or activities. However, a safety policy may be defined for a specific activity. Policies should also mention the control of hazards.

4.4 Applicable Plans and Procedures

A SP carries forward the safety elements of the Operator's management system, including policies, plans, procedures, resources, monitoring and work instructions to the activity at the work site or installation.

As required by the subsection 8(a) of the Regulations, the SP shall include a summary of and references to the management system that demonstrates how it will be applied to the work or activity and how the duties set out in the Regulations with regard to safety will be fulfilled. The SP must contain sufficient objective commitment and detail to be understandable and useful, but need not duplicate detailed information contained elsewhere in the management system; reference where the details may be found.

When writing the sections of the SP describing Planning, Implementation & Operations, Checking and Continual Improvement as described below, the SP should refer to the specific plans, procedures, work instructions, operating manuals and other documents intended to direct the work of personnel at the installation. These documents may be at varying levels of authority within the management system and should be written appropriately to control work activities such that the following can be achieved:

- the work or activity is conducted in a manner that conforms to the safety policy;
- safety mitigation commitments are met; and
- Operator's objectives and targets are met.

As necessary, the SP should refer to documents at higher or lower levels in the Operator's management system. Higher level documents may describe safety management policies and processes. Lower level documents may describe general procedures, specific operational procedures, activity-specific work procedures and work-directions, equipment manuals, personnel allocations, and resource allocations to satisfy the safety obligations of the Operator.

4.5 Planning

4.5.1 Hazard Identification, Evaluation and Risk Mitigation

Section 19 of the Regulations requires that "The Operator shall take all reasonable precautions to ensure safety and environmental protection". Additional safety-related requirements are present throughout Parts 3 to 10 of the Regulations.

While the concept 'as low as reasonably practicable' (ALARP) is not discussed in the Regulations, this concept has been used for a number of years by industry and regulatory boards in considering safety matters and reduction of risk. The Board expects that this concept will continue to be a factor when considering a SP under these Regulations. Industry may demonstrate incorporation of ALARP into their risk reduction and associated mitigating measures through a number of means, including by a combination of qualitative analysis, quantitative analysis and good industry practice.

Paragraph 5(2)(c) of the Regulations requires that the management system contain "processes for identifying hazards and for evaluating and managing the associated risks". The SP should provide a high-level understanding of the Operator's processes for identifying hazards and for

evaluating and managing the associated risks for the type of work or activity proposed. Pursuant to subsections 8(b) and (c) of the Regulations, the plan must then provide detailed information for the specific work or activity including a summary of the studies undertaken to identify hazards and assess risk and a description of the hazards that were identified.

The processes for identification of safety hazards and risks, whether on a situation-specific or project wide basis, is not an activity that only occurs at the activity authorization/approval phase. Operator's must have processes in place which assure that hazards and risk is assessed at all levels of the organization as work proceeds and re-assessed at higher levels as project assumptions change or experience is obtained, from the exploration and development phase through to decommissioning and abandonment. Therefore, the SP should provide explanation of how risk is assessed and re-assessed at all levels through the life of the proposed work or activity.

Section (8)(d) of the Regulation requires that the SP include a summary of the measures to prevent, reduce or manage safety risks. In essence, the entire SP contains the procedures, practices, resources and is a compilation of the measures to manage risk and ensure the safety of the work or activity. However, the intent here is to ensure that the SP highlights procedures, equipment, etc. specifically intended to mitigate significant hazards (see section 4.6 Implementation and Operations).

4.5.2 Legal Requirements

The Operator's management system must ensure compliance with all applicable Acts and Regulations, and the SP should identify the applicable legal requirements that the planned work or activities are to comply with in respect of its safety obligations. This should include all Canadian, flag and international requirements as may be applicable. The SP should identify possible conflicts between regulatory requirements. The portions of the Regulations relevant to the SP are discussed in Section 2: Regulatory Framework.

4.5.3 Commitments by the Operator

The SP should refer to and be responsive to commitments that the Operator has made, in respect of safety, as part of the application process prior to work or activities being undertaken. This may include, but is not limited to:

- commitments made in an application for a Development Plan Approval; and
- commitments made in the application for authorization of a work or activity.

4.5.4 Guidance and Adopted Standards

The SP should list industry guidance and other codes and standards that the Operator has adopted related to the work or activity. For example

- Canadian Association of Petroleum Producers (CAPP) "Atlantic Canada Offshore Petroleum Industry Standard Practice for the Training and Qualification of Personnel" (CAPP, CNSOPB, C-NLOPB)
- CAPP "Atlantic Canada Offshore Petroleum Industry Safe Lifting Practices Guide" (CAPP, CNSOPB, C-NLOPB)
- CAPP "Atlantic Canada Offshore Petroleum Industry Medical Assessment Guide" (CAPP, CNSOPB, C-NLOPB)

The Operator should be aware that where they adopt a code, standard as part of the SP, compliance is enforceable.

comment: something is enforceable only when it is attached to an instrument (in the Act or Regs, or 'attached' to an authorization or a well approval. recommend going back to the NEB suggested wording for this sentence.... "The Operator should be aware that where a standard is included in a SP, the requirements of that standard may become enforceable as a condition of an authorization or approval. "

4.5.5 Objectives, Targets and Limits

Consistent with Section 8(h) of the Regulations, the SP should describe how the Operator will monitor compliance with the SP, measure effectiveness of the SP, and measure safety performance, including safety of personnel, process safety and safety of the installations.

It is important that the goals for the improvement of safety (see paragraph 5(2)(b) of the Regulations) include matters related to hazards. The SP should describe the leading and lagging performance indicators that the Operator will use to steward these goals, including those for asset integrity, process safety, and human factors.

4.6 Implementation and Operations

4.6.1 Resources, Roles, Responsibilities and Authority

The management system must contain the name and position of the person accountable for the system, and name and position of the person responsible for implementing the system.

Likewise, the SP must contain the name of the person accountable for the SP and the names of the persons responsible for implementing it. These individuals must ensure that both the design and implementation of the SP is effective in ensuring safety, including the allocation and management of financial and human, as required, to achieve the purpose of the management system and of the SP.

The SP should describe, at an operational level, how installation management and personnel will implement the SP on a day-to-day basis.

Subsection (8)(f) of the Regulations requires that the SP include a description of the organizational structure for the proposed work or activity and the command structure on the installation, which clearly explains:

- i) Their relationship to each other, and
- ii) The contact information and position of the person accountable for the safety plan and of the person responsible for implementing it.

The arrangements for coordinating the management and operations of the proposed work or activity among the owner of the installation, the contractors, the Operator and others as applicable are also a requirement of the management system under paragraph 5(2)(j) of the Regulations.

In identifying the person responsible for and the person accountable for the SP, their accountability/responsibility should include the responsibility and authority for both the implementation and the ongoing maintenance of the SP. The SP should contain organization charts showing reporting relationships for both line management roles and supporting Safety staff functional roles. The SP should additionally indicate that the person accountable is responsible for reporting to management on the performance of the safety management system that is being

applied to the planned work or activities, including recommendations for improvement. The Safety Plan should identify safety-related accountabilities and responsibilities of all senior managers and other key personnel for both the Operator and key contractors.

With regard to contractors, the Operator should allocate appropriate personnel and resources to ensure that the contractors it employs can support the Operator's applicable regulatory requirements. Note that, ultimately, it is the Operator's responsibility to meet applicable legislative and regulatory requirements.

4.6.2 Commitment, Leadership and Participation

The SP should describe how the leadership of the organization will demonstrate safety commitment, oversight, and visible participation.

The SP should also describe how workers will be encouraged and supported to participate in the execution and ongoing evolution of the SP.

The SP should also describe how workers will be engaged in safety management activities, such as the worker's right to know, right to participate and right to refuse. The right to know includes the right to be aware of all credible hazards and the systems in place to mitigate risk associated with these hazards. The right to participate includes not only such established forums as a Joint Occupational Health & Safety Committees, but also the more general right for workers to have input into safety management, including the Safety Plan. The SP should include a clear statement reiterating the right to refuse dangerous work and outlining the process workers follow to exercise this right as required by applicable legislation.

4.6.3 Awareness, Competence, and Training

An Operator must provide for safety awareness and competence assurance among all personnel. The latter includes both training and competency assessment. This is particularly relevant in respect to safety. Pursuant to section 5.11 of COGOA (as well as in the Accord Acts) and sections 5, 8, 19 and 72 of the Regulations there must be plans and procedures in place to accomplish these objectives, and the Operator must maintain records of induction, training and competency assessment.

4.6.3.1 Awareness

The SP should summarize, then make reference to, the procedure(s) in place to make persons aware of the existence of the SP and their obligations with respect to safety. This awareness should be communicated in all levels of the organization:

- Management;
- Operations personnel; and
- Contractors and subcontractors.

This communication should include:

- the organization's commitment to safety and operating in a responsible manner;
- a general awareness of the potential hazards of the work or activity and the individuals role in controlling those hazards;
- the responsibilities of each individual to meet safety objectives and achieve conformity with safety policies and procedures; and
- the potential consequences of departure from specified procedures.

4.6.3.2 Competence and Training

The SP should summarize, and then make reference to, processes that describe the hiring process, noting how Operator and contractor personnel are selected (e.g. objective criteria of experience, training and other qualifications). The SP should also summarize, and then make reference to, the medical standards (e.g. API medical standards for crane Operators) and associated processes used to assess personnel's physical ability to work in a specific position in the "offshore" environment (e.g. fire team members) without posing an undue risk to themselves or others.

Section 5.11 of COGOA (as well as in the Accord Acts) requires that the Operator declare that the personnel employed in connection with any authorized work or activity "are qualified and competent for their employment;" and will "continue to be so qualified and competent so long as the work or activity that is authorized continues." Paragraph 5(2)(d) of the Regulation requires that "processes for ensuring that personnel are trained and competent to perform their duties;" be included in the management system. Subsection 19(l) of the Regulation requires that Operators ensure that "a sufficient number of trained and competent individuals are available to complete the authorized work or activities and carry out any work or activity safely and without causing pollution"

The SP should consequently set out the minimum number of personnel needed in each safety critical role to complete the work or activity safely and refer to the procedures on which the determination was made. The SP should also summarize and reference succession plans and other planning and monitoring procedures to manage this regulatory requirement or refer to those processes.

The application of a systematic approach to the assurance of competence, which considers hiring and placement processes, training, certification, competency assessment, documentation, audit, review and feedback, is inherent in the legislation. The SP need not include a detailed listing of training and competency requirements. Rather, with respect to achieving compliance with paragraph 5(2)(d) and section 72 of the Regulations, the plan should summarize how the Operator has ensured that personnel are trained and competent to perform their duties and provide references to more detailed information as may be necessary for audit. This includes personnel involved in the planning and shore based management of projects as well as those involved in offshore execution. It also includes key positions on support craft, e.g. helicopter pilots and vessel Masters.

The SP should summarize, and then make reference to, the requirements and qualifications for core offshore and onshore positions. This includes personnel performing key support roles, such as helicopter pilots and vessel Masters. The CAPP – Canadian East Coast Offshore Petroleum Industry Standard Practice for the Training and Qualifications of Personnel provides some guidance on minimum requirements for the training, experience and certification of offshore personnel. However, the Operator should set project-specific training and qualification requirements based on project specific activities, roles, hazards and risk. The SP should identify the procedures that must be followed to ensure that personnel are trained in operating and maintenance procedures, including simulator training where appropriate. The SP should also identify the procedures and processes for determining safety critical tasks, and the competency assurance process for personnel performing those tasks.

Where professional, marine, trades, etc. certificates are required, the Safety Plan should summarize, and then make reference to, processes that describe how those required certifications will be determined and how they will be maintained.

The SP should summarize, and then make reference to, the procedure(s) in place to train personnel in the safety elements of their roles/tasks. Where specialized training is required because of the specific safety aspects of a planned work or activity, this training requirement the Operator should identify the training in the SP. The SP should summarize, and then make

reference to, procedures in place to identify safety critical tasks and to ensure that personnel performing safety critical tasks are competent to perform those tasks. Prior to undertaking a safety critical task unsupervised for the first time, the required competency must be clearly defined and objectively assessed.

The SP should identify the procedures for determining the the specific training that leaders are required to receive in matters related to safety, risk management and their role in the Operator's management system.

4.6.4 Communication

4.6.4.1 Internal Communication

Within the Operator's organization, the safety hazards, risks and mitigations associated with a work or activity, the safety elements of the management system, targets and goals should be communicated as appropriate through all levels of the organization.

In this regard, the Operator should develop policies, plans and procedures for internal communication to ensure that safety matters are communicated to the Operator's team, its contractors and subcontractors, and others (as applicable). The SP should refer to the appropriate policies, plans and procedures for communicating safety matters.

4.6.4.2 External Communication

Various stakeholders have an interest in the safety risks and mitigations associated with a work or activity. The Operator should develop policies, plans and procedures for managing communications from and to external stakeholders, including public disclosure of documents, and these should be summarized and then referenced in the SP.

Where the Operator has made commitments during the safety study or risk assessment process or the development plan approval process to provide documents to the public, the procedures that the will used to satisfy this commitment should be summarized and then referenced in the SP.

4.6.5 Documentation & Document Control

The requirement for the Operator to establish a process for document control is set out in subsection 5(3) of the Regulations. Document control processes, among other things, ensure that documents are accurate and current, and ensure the efficient and effective dissemination of changes and revised documents to the appropriate persons. The SP should summarize and then make reference to document control processes.

The SP should summarize and then make reference to procedures for

- approving documents prior to issue;
- periodically reviewing, updating, or withdrawing documents as necessary;
- ensuring that changes to, and the current revision status of, documents are identified;
- ensuring that relevant versions of applicable documents are available at points of use;
- ensuring that documents remain legible, identifiable, available for use and confidential as appropriate;
- ensuring that documents of external origin determined by the organization to be necessary for the planning and operation of the SMS are identified; and

- preventing the unintended use of obsolete documents and identifying such documents if they are retained for any purpose
- ensuring the secure storage, protection, retrieval and retention of documents

As an important component of the management system, the Boards expect the SP to be a controlled document and that the appropriate Board will be provided with an up-to-date copy when the document is changed. Where the SP consists of multiple documents, the same expectation would apply.

A Board may request an up-to-date copy of any document required to conduct the Board's oversight function.

4.6.6 Operational Control

4.6.6.1 Operations, Maintenance and Safety Procedures

Section 5.11 of COGOA (as well as in the Accord Acts) requires that the Operator declare that the operating procedures are appropriate for their uses and Section 8 of the Regulations requires that the SP set out the procedures, practices and resources necessary to ensure the safety of the work or activity.

The SP should demonstrate that a comprehensive system of procedures and practices are in place to guide all hazardous operations and their interaction with one another. The SP should list key operational and safety procedures and summarize, and then make reference to, processes that describe how operational procedures are developed, monitored, controlled and maintained and how they highlight key safety critical operations. Hazardous operations include drilling, well operations, production and process operations, helicopter operations, materials handling, marine, maintenance, construction, installation operations, etc..

The SP should identify and summarize the systems in place to control hazardous work and reference applicable procedures. These should include work permit systems, shift and tour hand-over procedures, alarm and safety system inhibit control, simultaneous operations procedures, planning meetings and planning activities at all levels of the organization, e.g. tool box talks, pre-task risk assessments, communications procedures, etc.

The SP should summarize, and then make reference to, the procedures in place to manage planned safety inspections on installations, vessels and support craft and to ensure that appropriate personnel protective equipment, machine guarding, etc., is identified, used and maintained as appropriate during all work activities.

For SP's submitted to the CNSOPB and CNLOPB, the SP should also summarize the systems that manage and control the risk associated with all forms of worker impairment, including fatigue, drugs, sickness, etc. and reference applicable procedures. This applies to all persons whose work has a direct effect on approved work or activity and includes appropriate "onshore" personnel. In this context, "risk" means both risk to individuals in question, and any risk their impaired function may pose to the safety of other personnel, the installation or to the environment.

4.6.6.2 Critical Structures, Facilities, Equipment and Systems

Pursuant to Section 8(e) of the Regulations, the SP shall include a listing of all structures, facilities, equipment and systems critical to safety, and a summary of the system in place for their inspection, testing and maintenance.

The methodology used to develop the list of safety critical items should be summarized and then referenced, including links to the overall risk assessment and design processes.

The Acts require that the Operator declare, *“the equipment and installations that are to be used in the work or activity to be authorized are fit for the purposes for which they are to be used”*. The SP shall therefore summarize and then make reference to the processes and procedures for how fitness for purpose has been determined for safety critical items.

For offshore installations, Operators may rely, to an appropriate degree, on the Certificate of Fitness and / or Flag State certificates as third party verification of specific regulatory requirements, including the integrity assurance of safety critical items. However, these certificates do not relieve the Operator of overall accountability for the integrity of safety critical items. Consequently, for offshore installations, the SP should explain how these third party third certification schemes fit into the Operator’s overall due diligence process and demonstrate how Operators use third party verification to complement internal processes.

As this safety critical item list may be quite lengthy and electronically controlled, it may not be practical to include it directly in the SP. Consequently the SP may include some appropriate abbreviated form of this list along with details of how the Operator and / or installation owner maintains the full list.

As explained in the September 30, 2009 draft guidance to the *Drilling and Production Regulations*, Asset Integrity is a life cycle process that Operators should integrate within the overall management system. The SP should provide a high-level overview of asset integrity management to complement the specific information provided on safety critical equipment. Where an Operator has developed processes and procedures for managing the integrity of “Safety and Environmentally Critical Systems,” the SP need not repeat these in detail but rather provide an overview explanation and may refer to the specific documents.

4.6.7 Contractor and Supply Chain Management

The SP should identify processes to evaluate products, supplies, equipment, new materials and other goods prior to purchase. These processes should identify and assess the hazards and risks associated with the use of these goods (e.g. chemicals) and establish mitigation (such as equipment, procedures and monitoring) to eliminate or control these hazards and risks.

The SP should identify processes that describe how contractors are selected, including the weight placed upon safety performance and competence and an explanation of how the Operator measures and verifies these factors. The SP should explain the coordination or integration of respective safety management systems, including contract provisions for performance monitoring.

The SP should explain Operator and contractor relationships and explain Operator oversight and coordination of these matters. This includes an explanation of how the Operator’s overall “processes for conducting periodic reviews or audits of the management system and for taking corrective actions where reviews or audits identifying areas of non-conformance with the management system and opportunities for improvement”, as required by paragraph 5(2) (i) of the Regulations, will apply to the activity.

4.6.8 Management of Change

Change is an ongoing feature of offshore oil and gas operations. These changes may be in response to changing conditions in the field, changes in available equipment, improvements in technology, experience and learning from failures and incidents, and changes in regulatory requirements, to name a few. Changes can pertain to such areas as equipment, materials,

procedures, practices, systems, and personnel, including risk assessment and approval processes.

Section 5.11 of COGOA (as well as in the Accord Acts) requires that the Operator declare that they “shall ensure, so long as the work or activity that is authorized continues, that the equipment and installations continue to be fit for the purposes for which they are used, the operating procedures continue to be appropriate for those uses, and the personnel continue to be so qualified and competent.”

Consequently, the Operator must manage all change to ensure that it does not compromise safety. This is particularly relevant where safety critical systems may be impacted.

The SP should explain and refer to the Operator’s management of change procedures applicable to the work or activity. This includes processes that ensure the revision distribution and control of associated documents (see 4.6.5 above).”

4.6.9 Safety Incidents and Near Misses

4.6.9.1 Emergency Preparedness and Response

Plans to deal with safety and environmental emergencies must be submitted to the Board with the application for an authorization under subsection 6 (j) of the Regulations. Plans to deal with potential hazards (e.g. abnormal conditions) are a requirement under subsection 19(h) of the Regulations.

The Safety Plan should identify potential hazards, abnormal situations, emergency situations, incidents and accidents that could have an impact on the safety and for which contingency plans, including emergency response procedures (see subsection 6(j) of the Regulations) have been developed. The SP should refer to the appropriate emergency plans and procedures and/or spill response plan(s) that would be implemented in such situations as submitted with the application for an authorization.

In addition, the SP should refer to the Operator’s plans to test and exercise its emergency preparedness plans and response equipment.

4.6.9.2 Incident and Near Miss Reporting and Investigation

Sections 5(c) and (f) of the Regulations require processes for the reporting of hazards and injuries and for taking corrective action. Section 76 of the Regulations (75 in the COGOA version) contain incident and near miss notification, investigation and reporting requirements. The SP should explain and identify the procedures for the reporting of safety incidents and near misses both internally and to the relevant Board. Procedures should include the investigation of all such incidents to find the underlying or root causes, the identification, implementation and tracking of remedial actions to prevent future recurrence of the incident or similar incidents.

Offshore Operators in C-NLOPB and CNSOPB jurisdictions should refer to the *Guideline for the Reporting and Investigation of Incidents*¹ in this regard. Operators in NEB jurisdiction should consult with the NEB to determine appropriate procedures for the reporting and investigation of

¹ Canada-Nova Scotia Offshore Petroleum Board, and Canada Newfoundland and Labrador Offshore Petroleum Board, ***Guideline for the Reporting and Investigation of Incidents***, ISBN 978-1-897101-48-3, available from C-NLOPB, 5th Floor, TD Place, 140 Water Street, St. John’s, NL, A1C 6H6, or CNSOPB, 6th Floor, TD Centre, 1791 Barrington St., Halifax, NS, B3J 3K9

incidents. The NEB is reviewing the development of Guidelines for the Reporting of Incidents and Near Miss Reporting and Incident Investigation.

Remedial actions resulting from periodic reviews or audits of the management system or of incident investigations may include changes to policies, plans, procedures, work instructions or equipment. The SP should be reviewed and revised to reflect these changes as necessary.

Where the Operator has developed a procedure for the reporting and investigation of incidents, the SP should not repeat this but should refer to that procedure.

4.7 Checking

4.7.1 Performance Measurement and Compliance Monitoring

Section 8 (h) of the Regulations requires arrangements for both measuring the performance of the SP in relation to its objectives and monitoring compliance with the SP. The SP should identify which performance indicators and the Operator will measure and track. The SP should also identify how the Operator will monitor and ensure compliance with the plan.

4.7.2 Auditing

The SP should identify the type of audits (internal and external) to be performed during the planned work or activities related to safety performance, the nature and extent of such audits and how the results of the audits will be used and then communicated to senior management. The SP should refer to the Operator's procedures for managing and conducting their auditing program.

4.7.2.1 Internal Audits

In compliance with paragraph 5(2)(i) of the Regulations, the Operator must conduct periodic reviews or audits of their management system and its components. The safety elements of the management system should be captured as part of this process. This is an important internal process for monitoring performance, ensuring compliance with the Regulations and promoting continuous improvement of the Operator's safety performance.

4.7.2.2 External Audits

The Operator may elect to have an external auditor assess compliance with legislation and regulations, and assess the management systems that achieve compliance (or components of these systems, e.g. safety). These audits may be conducted to determine conformance to the Operator's internal policies/model or to an external criteria such as a standard. The SP should identify any procedures relevant to audit of the SP, including implementation of corrective actions.

The Boards also conduct audits. These audits may range from focused compliance audits to comprehensive audits of the Operator's management system. In general terms, these audits assess compliance with regulatory requirements as well as with authorizations and approvals (including conditions), and conformance with the Operator's own plans and procedures.

4.7.3 Managing Nonconformities

The SP should summarize, and then make reference to, the procedure(s) to identify and deal with nonconformities or problems related to procedures and equipment that could cause poor safety performance. Such procedures should also address communication, and how corrective and preventative action(s) will be taken to address such nonconformities, and how the effectiveness of corrective and preventative actions will be assessed after an appropriate implementation period.

4.7.4 Control of Records

The SP should identify records to be maintained to demonstrate safety and conformity to the management system, including the SP. In identifying such records, the Operator shall take into account the various record keeping requirements set out in Part 11 of the Regulations. In particular, training and competency records, inspection, testing and maintenance records, compliance monitoring records, records of safety incidents, accidents and investigations, and records of safety activities undertaken in response to investigation reports, audit outcomes or other safety initiatives should be maintained.

4.8 Continual Improvement

The expectations for continual improvement are implicit in Section 5 of the Regulations. Specifically, the management system must include the following:

5(1)(b) the processes for setting goals for the improvement of safety, environmental protection and waste prevention;...
5(1)(i) the processes for conducting periodic reviews or audits of the management system and for taking corrective actions if reviews or audits identify areas of nonthe management system and opportunities for improvement;

With respect to safety matters, the Regulations require, as part of an Annual Safety Report, " a summary of lost or restricted workday injuries, minor injuries and safety-related incidents that have occurred during the preceding year; and a discussion of efforts undertaken to improve safety."

The Operator may collect or receive safety performance information in a number of ways:

- Compliance monitoring;
- Incident and Near Miss reporting and investigation
- Incident Investigation and reporting,
- Internal and external Audits,
- Monitoring of leading and lagging indicators

The Boards expect Operators to seek opportunities for improvement in safety and are required to report annually on their safety performance. The SP should refer to the annual safety report, and that report should refer back to the SP.

The SP should describe how experience gained from operations will be reviewed and used to improve the SP and the safety management system. Where the Operator has a separate procedure for continuous improvement, the SP may refer to that procedure. The SP should be a dynamic document that is updated from time to time to reflect the Operator's learning's, changes in industry standards, and changes in regulatory requirements.