

Personal contact information redacted for privacy



Deep Panuke

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25U	2020-08-14	Re-Issued for Use	██████	██████	██████		██████	██████
24U	2020-06-12	Re-Issued for Use	██████	██████	██████	██████	██████	██████
23U	2020-05-27	Re-Issued for Use	██████	██████	██████	██████	██████	██████
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DM	EN	X00	PR	OP	00	0001	26U	
Project	Originator	Location	Type	Disc	System	No.	Rev	

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REVISION LIST	
REVISION	DESCRIPTION OF CHANGES
01R	Issue for Review
02R	Revised and Approved
03R	Revised and Issued for Approval
04U	General update
05R	Re-Issued for Review; Emergency Management Plan and Emergency Response Plan now combined into single document
06U	Re-issued for Use
07U	Re-Issued for Use, updated appendices for Acergy Falcon & Discovery, SBM Seawatch Buoy and Bathymetry Survey, and Section 2.10.
08U	General update
09U	Updated Acergy Falcon Appendix
10U	Updated SBM Appendices – Skolten Phased One approach
11U	Updated Appendices – SBM PFC, SBM Shorebase, Somerville
12U	Updated Plan and Appendices to Reflect Operations Phase
13U	Updated plan with loss of well control and onshore emergency response information
14U	General update
15U	General update; updated to reflect new National Energy Board Event Reporting Guidelines
16U	General update; transition to HNZ helicopter services
17U	General update; company name change to Canadian Helicopters Offshore helicopter services; updated to reflect new CNSOPB Incident Reporting Guidelines
18U	General update; company change to Cougar helicopter services; reflect current transition from the National Energy Board/Act to Canada Energy Regulator/Act
19U	General update; added information for Well Plug and Abandonment Program
20U	Updated contractors contact information
21U	Updated to address comments from the CNSOPB; general contact lists update
22U	Updated to address comments from the CNSOPB
23U	Updated to include PFC deinstallation program; name change from Encana to Ovintiv; general updates
24U	Updated to added contact information for Kvaerner program vessels
25U	Updated to include information on DOF subsea structures removal program
26U	Updated to include latest contact numbers for Skandi Neptune; removes HOLD 1

HOLDS AND INPUT STATUS		
HOLD No.	ACTION	REMARKS

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ABBREVIATIONS AND DEFINITIONS

CNSOPB	Canada-Nova Scotia Offshore Petroleum Board
EHS	environment, health and safety
EHS&Q	Environment, health, safety and quality

Alert: immediate control of the hazard with progressive resolution of the situation.

Business Continuity: A documented set of procedures to ensure critical business processes can continue regardless of a disruption.

Communication: Any way of exchanging information or ideas concerning emergency response process (primary & back-up) with other entities, either external or within the organization.

Emergency: A present or imminent event outside the scope of normal operations that requires prompt coordination of resources to protect the health, safety, and welfare of people and to limit damage to property and the environment.

Emergency Management: A documented management framework intended to ensure that steps are taken to identify potential losses and their possible impact, maintain viable response and recovery strategies, and provide for continuity of services in an emergency.

Emergency Preparedness: Activities, programs, and systems for response, recovery, and mitigation in anticipated emergencies.

Emergency Response Plan: A site-specific plan to protect the public, property and the environment, including criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies and establishing communications and coordination, that is to be followed by all parties in the event of an incident.

Incident (National Energy Board *Onshore Pipeline Regulations*): Means an occurrence related to the pipeline (including the riser) that results in:

- (a) the death of or serious injury to a person;
- (b) a significant adverse effect on the environment [including spills offshore, nearshore, and near watercourses; National Energy Board, pers. comm.];
- (c) an unintended fire or explosion;
- (d) an unintended or uncontained release of Low Vapour Pressure hydrocarbons >1.5 m³;
- (e) an unintended or uncontrolled release of gas or High Vapour Pressure hydrocarbons;
- (f) the operation of a pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board.

Incident (CNSOPB): Any event that caused or, under slightly different circumstances, would likely have caused harm to personnel, an unauthorized discharge or spill or an imminent threat to the safety of a marine installation or structure, passenger craft, vessel or aircraft. It also includes any event that impairs the function of any Critical Equipment.

Level 1 Emergency: Immediate control of the hazard becomes progressively more complex because of deteriorating conditions (see Sec. 2).

Level 2 Emergency: Imminent and/or intermittent control of the hazard is possible (see Sec. 2).

Level 3 Emergency: Imminent control of the hazard is not possible (see Sec. 2).

Medevac: medical evacuation of offshore personnel by helicopter or vessel including appropriate medical attendants and equipment for the incident. Normally, medical attendants will be mobilized onshore to accompany the helicopter/vessel and the rig medic will remain offshore.

Major Injury (CNSOPB): includes the following

- amputation: includes whole or partial amputation of parts of the body (does not include loss of fleshy tip of finger, nail or tooth);
- skeletal injuries: includes bone fractures (including chipped or cracked bone or hairline fracture) and dislocation of shoulder, hip, knee or spine. They do not include fractures to fingers, toes, or a broken nose;
- burns: only if the injured person becomes unconscious, is admitted to the hospital, or requires resuscitation;
- injuries to internal organs: only if the injured person becomes unconscious, is admitted to the hospital, or requires resuscitation;
- eye injuries resulting in loss of sight (permanent or temporary);
- eye injuries resulting from a penetrating eye injury or a chemical or hot metal burn to the eye;

- any acute illness caused by exposure to chemicals or biological agents or anything that produces a significant negative physiological effect (e.g. decompression illness, loss of hearing, and radiation sickness);
- hypothermia or heat induced illness (unconsciousness); or
- any injury resulting in unconsciousness, resuscitation, or requiring evacuation ashore.

Serious Injury (National Energy Board *Onshore Pipeline Regulations*): is an injury that results in:

- a) the fracture of a major bone
- b) the amputation of a body part
- c) the loss of sight in one or both eyes
- d) internal hemorrhage
- e) third degree burns
- f) unconsciousness
- g) the loss of a body part or function of a body part

1 INTRODUCTION

This Emergency Management Plan has been developed to provide an effective and consistent response to emergency situations which may arise during the decommissioning and abandonment phase of the Ovintiv Deep Panuke natural gas field. This Emergency Management Plan is consistent with Ovintiv's Corporate guidelines by maintaining conformity with the Corporate Incident and Emergency Management Standard outlined in Ovintiv's Corporate Environment Health Safety Management System (EHSMS) – Ethos.

The Emergency Management Plan has been structured to provide a graduated, or staged, response when dealing with emergencies – some of which provide limited warning of the impending situation and others which provide no warning at all. This document outlines a plan to initiate and organize what must be done and by whom to reduce the adverse effects of the emergency.

This plan is designed to assist personnel in responding to emergencies. However, nothing in this plan precludes personnel from deviating from the contents within or from taking alternative appropriate actions as may be dictated by the special circumstances of the situation. All contractors are required to have an emergency response plan or Emergency Management Plan in place which describes their emergency response system as it relates to this Ovintiv Deep Panuke Emergency Management Plan.

For clarity, it must be noted that Ovintiv will lead the response for onshore emergencies. In offshore emergency situations related to Deep Panuke, Ovintiv may also assume control of the response if the contractors' emergency management teams are not effectively managing their emergencies.

1.1 Ovintiv's EHS Management Framework

Ethos sets out 12 corporate-wide standards that clearly define how Ovintiv conducts its business. It also provides a systematic 'Plan-Do-Check-Act' methodology, which is a simple four-step process that drives the continuous improvement of our EHS processes and performance. All Ovintiv staff and contractors must conform to these corporate standards. Ovintiv's existing corporate EHS framework (Figure 1-1) includes the following:

- Ovintiv corporate policies, practices and guidelines
- Ethos (Standards and Guidance Documents)
- Site specific EHS practices and procedures

The Ovintiv Deep Panuke Asset Manager/Project Director has ultimate responsibility for the implementation of Ethos to support Deep Panuke operations.

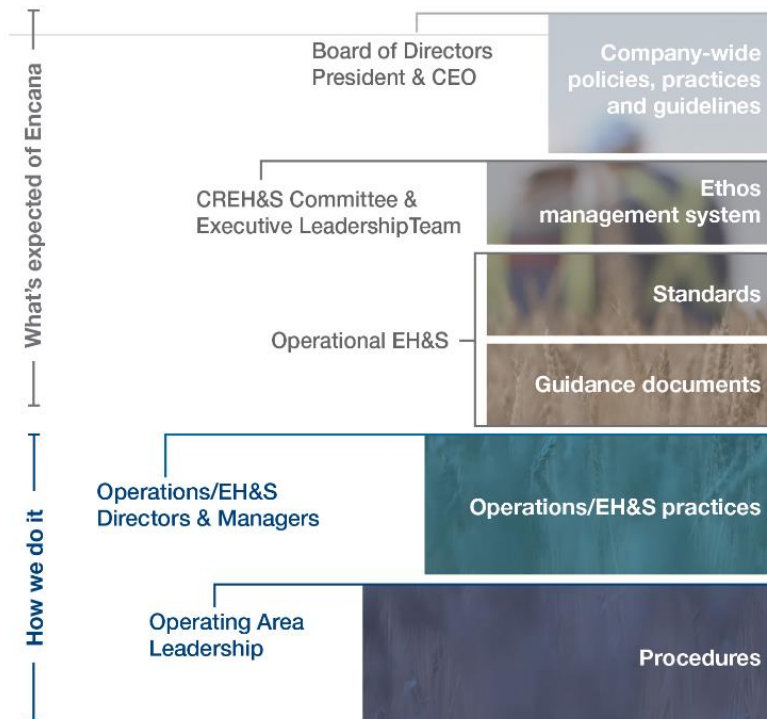


Figure 1-1 Ethos Structure and Accountabilities

The Ethos Incident and Emergency Management Standard requires that practices be in place to manage operational emergency and response, including the incident command system organizational crisis management.

The Deep Panuke EH&S Manager, Deep Panuke Asset Manager/Project Director and Deep Panuke Decommissioning Project Manager will ensure that Deep Panuke worksites/activities have appropriate emergency response plans and equipment.

Ovintiv has three distinct processes in its contractor selection process to ensure that all contractors have effective management systems in place. These three steps also apply to emergency response documentation:

1. Expression of Interest: at this stage, contractors are requested to provide management systems information at a high level.
2. Request for Proposal: contractors are requested to provide detailed specific information pertaining to management systems. During this phase, clarification meetings can be held to address any questions.
3. Evaluation and Award: documentation has been reviewed and a contractor is selected. Ovintiv completes a detailed audit at the contractor’s offices and facilities to ensure compliance with the management system and identify any deficiencies. These deficiencies are managed through monthly contractor meetings.

The Deep Panuke EH&S Manager will conduct a review with each Deep Panuke contractor emergency response plan to ensure their alignment with Ovintiv’s Ethos. Tabletop exercises are conducted prior to work activities with emergency response teams from Ovintiv and contractors to ensure documents are aligned, no gaps exist, and emergency team members are aware of their

assigned responsibilities. A review of all contractor's emergency response plans is undertaken on an annual basis or more frequently as required to address regulatory changes, organizational and personnel adjustments, identify operational hazards and recommendations resulting from exercises or real emergencies.

1.2 Reference Documents

In addition to this document, the supporting documents listed in the table below provide further detail relevant information for responding to emergencies. Additional references to contractors' emergency response plans are provided in Section 1.4.

Document Number	Document Title
Ovintiv Corporate Ethos	Ovintiv Corporate Incident and Emergency Management Standard
DCEN-X00-PR-EH-00-0001	Decommissioning and Abandonment Safety Plan
DMEN-X00-RP-EH-00-0010	Deep Panuke Risk Management Procedure (Prod Operations)
DMEN-X00-PR-EH-90-0002	Deep Panuke Emergency Response Communications Binder
EC98-1S-0067	Ovintiv Relative Response Guide
DMEN-X00-PR-EH-00-0008	Deep Panuke Offshore Spill Response Plan
DCEN-O22-PR-EH-74-0002	Ovintiv's Onshore Emergency Response Plan
ISBN #: 978-1-927098-77-6	CNSOPB <i>Incident Reporting and Investigation Guidelines (2018)</i>
Canada Energy Regulator Website	Canada Energy Regulator Emergency Management

1.3 Deep Panuke Gas Field Overview

The Deep Panuke field is located offshore, approximately 250 km southeast of Halifax, Nova Scotia, approximately 45 km to the west of Sable Island in an approximate water depth of 44 metres.

The Deep Panuke facilities consisted of an offshore platform (PFC), five subsea wells and associated subsea flowlines and control umbilicals and a 175-km gas pipeline to shore. The location of the Deep Panuke field is depicted in Figure 1.1.

Ovintiv permanently ceased production from Deep Panuke on May 7, 2018. The PFC was subsequently flushed and isolated from hydrocarbon sources in 2018. The gas pipeline was depressurized and flushed with seawater and disconnected. The onshore Pipeline Terminus was removed in July/August 2020. All infield flowlines were depressurized, flushed, cleaned and disconnected from the wellheads and at the PFC riser. All umbilicals were depressurized and disconnected from the wellheads and at the PFC riser. The PFC was removed in July 2020 and all five wells were plugged and abandoned between February and August 2020.

1.4 Scope

Deep Panuke decommissioning and abandonment will include the following activities:

- decommissioning of the PFC, subsea structures, flowlines, umbilicals, pipeline, and onshore facilities, with the flowlines, umbilicals and pipeline to be abandoned in place;
- well plug and abandonment;
- PFC deinstallation; and
- post-abandonment monitoring.

This Emergency Management Plan addresses unplanned emergency events associated with both onshore and offshore facilities during all remaining 2020 Deep Panuke decommissioning and abandonment activities, including the subsea structures removal program (which includes cutting and removal of well conductor/casing strings) with DOF Subsea Canada Corp.

Emergency response plans have been prepared for assets/activities by the responsible contractor as outlined in the table below.

Asset / Activity	Prime Contractor (Emergency Response Plan)
DOF Skandi Neptune (subsea structures removal)	DOF Subsea Deep Panuke Removal of Subsea Structures, Transport & Disposal - Project Emergency Response Plan, DCDF-X00-PR-EH-80-0002
Onshore decommissioning and abandonment	Ovintiv

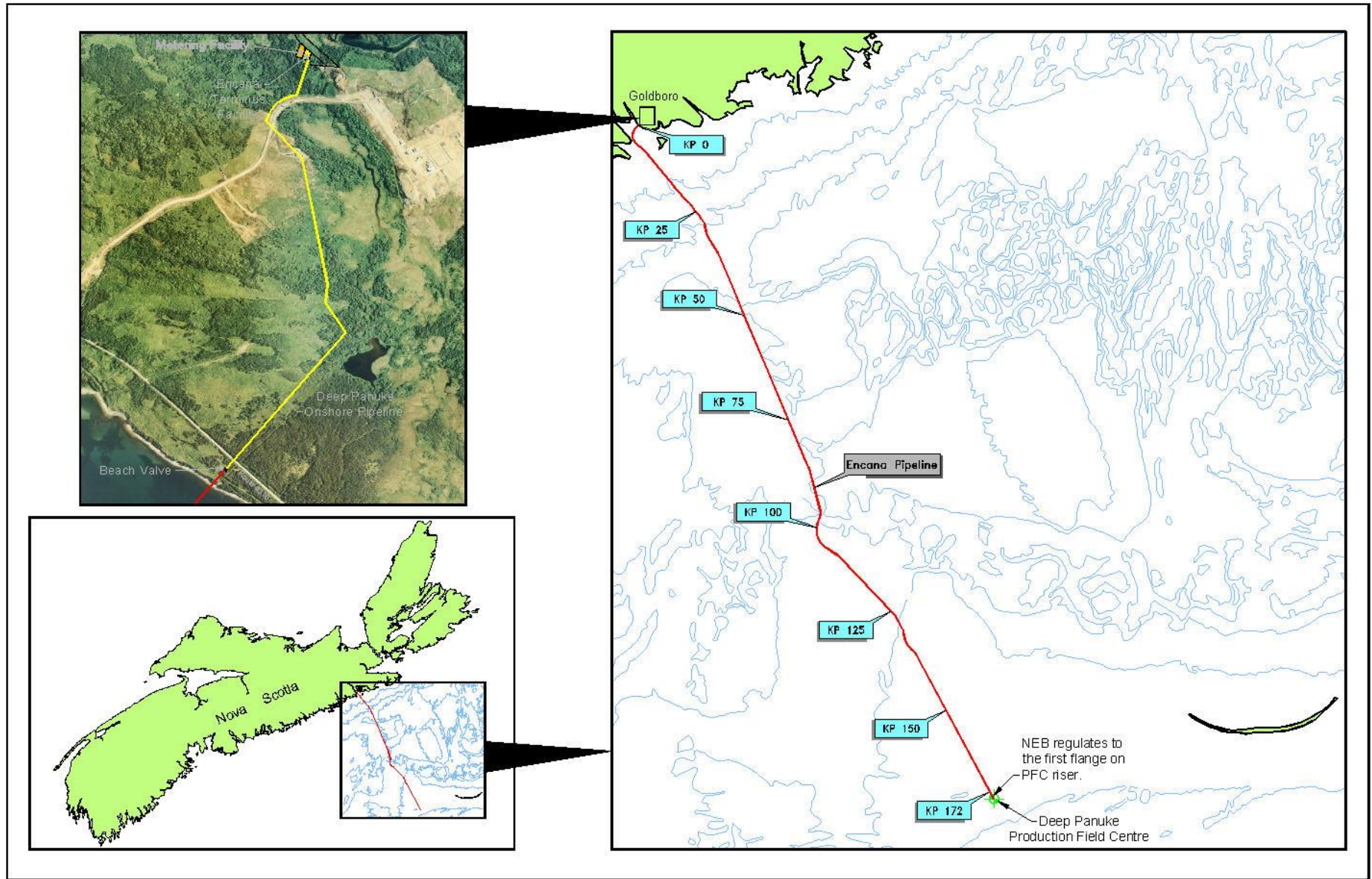


Figure 1-2 Deep Panuke Overview Map

1.5 Objectives

The objectives of this Emergency Management Plan are as follows:

- to protect lives (workers, responders, general public) and the environment by minimizing the effects of an unplanned event through clear and concise instructions of response procedures to all personnel;
- to minimize damage to company, public and private property;
- to protect shareholder value and address stakeholder concerns and expectations;
- to provide a method for interfacing with the Ovintiv Corporate emergency response plans as well as the Contractors' Emergency Management Teams;
- to preserve records and evidence for use in post-incident investigations; and
- to satisfy the regulatory requirements.

1.6 Regulatory Framework

Refer to Sections 3.1 and 3.2 from the Deep Panuke Decommissioning and Abandonment Safety Plan (DCEN-X00-PR-EH-00-0001) for regulatory requirements relevant to incidents and emergency response for the Deep Panuke decommissioning and abandonment activities.

1.7 Risk Analysis

The Deep Panuke Risk Management Procedure (DMEN-X00-RP-EH-00-0010) describe the main activities, responsibilities and interfaces for planning and conducting risk assessment studies in relation to engineering processes that are not covered by primary contractors as part of their scope of work. Operational risk assessments will be conducted to manage mitigative activities required during an emergency response, using the Ovintiv EHS Risk Matrix and worksheet (see Appendix E).

Risk assessment reference documents are as follows:

- Decommissioning and Abandonment Safety Plan (DCEN-X00-PR-EH-00-0001);
- Project Safety Plan (DMEN-X00-PH-EH-00-0009);
- Ovintiv EH&S Risk Matrix (<http://ecm.encana.com/ehs/> under Managing Risk heading); and
- Management of Change Procedure (Production Operations) (DMEN-X00-PR-PM-00-0030).

2 LEVEL OF EMERGENCY

To improve communication and response performance, levels of emergency (Alert, Level 1, 2 or 3) are used to classify the emergency notification and associated response. The level of the emergency is initially established by the On-Scene Incident Commander and is confirmed by both onshore Emergency Managers. Levels of emergency may change during an incident; approval of any change must be given by both the Ovintiv and Contractor's Emergency Managers.

Emergency Management Teams, or parts thereof, will be mobilized at the discretion of the Emergency Managers. Regulatory agencies will be notified as required (see Section 6 for internal and external notifications requirements and Appendix B for the emergency notification checklist).

Please note that irrespective of the level of emergency; for any situation that involves a muster of personnel on an offshore vessel, the Ovintiv and Contractor Emergency Managers, CNSOPB and the Joint Rescue Coordination Centre must be apprised of the muster status.

These classification levels of emergency are corporate Ethos classifications. They are summarized as follows and are further defined below:

Alert: An incident that can be handled on site by company personnel through normal operating procedures and is deemed to be a very low risk to members of the public.

Emergency Level 1: There is no danger outside company property, there is no threat to the public and there is minimal environmental impact. The situation can be handled entirely by company personnel. There will be immediate control of the hazard. There is little or no media interest.

Emergency Level 2: There is no immediate danger outside of company property but there is the potential for the emergency to extend beyond company property. Outside agencies must be notified. Imminent control of the hazard is probable, but there is a moderate threat to the public and/or the environment. There may be local and regional media interest in the event.

Emergency Level 3: The safety of the public is in jeopardy from a major uncontrolled hazard. There are likely significant and ongoing environmental impacts. Immediate, multi-agency involvement is required.

2.1 Emergency Level 1

After an Alert, Level 1 emergencies are the least serious and are typically handled entirely by on-site personnel and contractor support. However, onsite personnel addressing the emergency must communicate with the Emergency Managers to advise of status periodically and any change in emergency status.

Level 1 Emergencies can be managed by the On-Scene Incident Command Team with minimal support from the Halifax-based Emergency Management Teams.

Level 1 Emergencies must meet ALL of the following criteria:

- hazard can be controlled immediately using available resources;
- public safety is not threatened; however, there may be a public perception of risk to human health or the environment;
- may be an early warning of a potential (unconfirmed) threat to Ovintiv and its contractors, its subsidiaries, employees, operations, financial condition or reputation;
- environmental impacts negligible – confined to company property, lease or site;
- company reputation not adversely impacted;
- little or no interest by local media;
- all control and relief systems are functioning normally; AND
- risk associated with the emergency is categorized as “minor” to “moderate” utilizing the Ovintiv EHS Risk Matrix.

2.2 Emergency Level 2

Level 2 emergencies are more serious than Level 1 emergencies and are characterized as having a (potential or real) significant impact to the safety of personnel, environment and asset. Level 2 emergencies cannot be managed by the On-Scene Incident Command Team and have potential to

escalate or continue for a protracted period of time; however, imminent control of the situation is probable.

Level 2 emergencies can be defined by ANY of the following criteria:

- multiple simultaneous serious injuries or illnesses;
- definite risk of major injury or loss of life;
- hazard/incident is not under control but imminent control of the hazard is probable;
- public safety may be threatened;
- environmental effects that extend or may extend off the company site resulting in minor or short-term detrimental impacts;
- local reputation of company could be adversely impacted;
- local and regional media interest;
- use of external resources for assistance;
- some control and relief systems are not operational; OR
- risk associated with the emergency is categorized as “Serious” utilizing the Ovintiv EHS Risk Matrix.

2.3 Emergency Level 3

Level 3 emergencies are the most serious of any incidents and include any occurrences that result in or have the potential to result in an extreme impact to the safety of personnel, environment and asset. Level 3 emergencies cannot be managed by the On-Scene Incident Command team and are likely to continue for a protracted period of time; imminent control of the situation is unlikely.

Level 3 emergencies can be defined by ANY of the following criteria:

- fatality;
- hazard remains uncontrolled and gaining control is not imminently possible;
- public safety has been seriously jeopardized;
- environmental impacts are significant, extend offsite, are ongoing and have the potential for long-term detrimental impacts;
- corporate reputation has been seriously impacted;
- regional, provincial, national media interest has escalated;
- regulatory agency involvement is both immediate and extensive;
- significant assistance required from outside parties, agencies, specialists;
- key control and relief systems have failed and/or are not functioning properly; OR
- risk of the emergency categorized as “Critical” on the Ovintiv EHS Risk Matrix.

3 TYPES OF EMERGENCY

The following is a listing of the potential types of emergencies which may be anticipated during the course of offshore or onshore decommissioning operations:

- man-overboard/missing person/fatality/major injury;
- fire/explosion;
- collision;
- spill;
- adverse environmental conditions;
- security emergency; and
- overdue/lost craft.

The site-specific offshore contractor (DOF) has emergency response plans and procedures to deal with these emergency situations. A brief description of each situation is provided in the sections below, as well as additional response information/directions specific to that situation, as required.

Ovintiv will lead the response for onshore emergencies.

Section 6.0 provides notification instructions for the various parties involved and for regulatory agencies.

3.1 Man-overboard/Missing Person/Fatality/Major Injury

The emergency "man-overboard" and "missing person" at sea refers to the Skandi Neptune in-transit or on-station.

Fatality refers to any death by accident or natural causes on the Skandi Neptune.

A major injury includes the following:

- amputation: includes whole or partial amputation of parts of the body (does not include loss of fleshy tip of finger, nail or tooth);
- skeletal injuries: includes bone fractures (including chipped or cracked bone or hairline fracture) and dislocation of shoulder, hip, knee or spine. They do not include fractures to fingers, toes, or a broken nose;
- burns: only if the injured person becomes unconscious, is admitted to the hospital, or requires resuscitation;
- injuries to internal organs: only if the injured person becomes unconscious, is admitted to the hospital, or requires resuscitation;
- eye injuries resulting in loss of sight (permanent or temporary);
- eye injuries resulting from a penetrating eye injury or a chemical or hot metal burn to the eye;
- any acute illness caused by exposure to chemicals or biological agents or anything that produces a significant negative physiological effect (e.g. decompression illness, loss of hearing, and radiation sickness);
- hypothermia or heat induced illness (unconsciousness); or
- any injury resulting in unconsciousness, resuscitation, or requiring evacuation ashore.

3.1.1 MEDEVAC Response Procedure

Medical evacuation (MEDEVAC) may be considered for any emergency medical condition, arising from injury, illness, or pandemic, which cannot be appropriately managed with the medical resources available on board.

The First Aid Representative or Medic will make the initial assessment of the injured individual. Any emergency treatment necessary will be performed immediately by the First Aid Representative/Medic to stabilize the patient. The First Aid Representative/Medic will contact the onshore medical advisor and discuss the situation.

The First Aid Representative/Medic and onshore medical advisor, in consultation, will establish the priority of MEDEVAC. If a Medevac is required then the vessel will either sail to Halifax best speed or JRCC will be contacted for Medevac services

Please refer to the Contractors' Emergency Response Plans.

3.2 Fire/Explosion

This emergency is defined as the uncontrolled explosion of any substance, whether or not the fire or explosion causes personal injury, structural damage or equipment damage.

The cause of the incident and remedial action must be immediately identified and controlled by on-site personnel to prevent escalation of the hazard level at the facility, including the possibility of further injury, damage to equipment, or harm to the environment.

This classification also includes a fire, caused by any circumstance that requires an on-site response greater than an individual using a hand-held portable extinguisher. This includes fires where the fixed fire suppression systems are activated manually or automatically or where the onboard emergency fire response fire team is mustered as backup.

3.3 Collision

The Skandi Neptune is responsible for providing long-range radar surveillance (15 to 25+ nautical miles), initial detection and preliminary target assessment.

3.4 Spill

A spill involves the unplanned/accidental release of a substance into the environment. It includes the spill of fuels, oils, other lubricants, chemicals and other substances that may give rise to an environmental hazard. Ovintiv's Offshore Spill Response Plan (DMEN-X00-PR-EH-00-0008) and Ovintiv's Onshore Emergency Response Plan (DCEN-O22-PR-EH-74-0002) must be used in conjunction with this Emergency Management Plan for response to offshore and onshore spills, respectively.

All spills of any type are to be recorded and reported to Ovintiv Emergency Management Team. Spill countermeasures and any appropriate clean-up/monitoring activities will be developed in communication between the site and onshore management.

3.5 Adverse Environmental Conditions

This emergency classification is deemed to exist whenever forecast or actual environmental conditions are approaching an alert level for the operation being conducted at the time. A severe weather alert is based upon the safe operating limits of the vessel and/or equipment and on the intensity/duration of the environmental hazard.

3.6 Security Emergency

This emergency classification is deemed to exist whenever Ovintiv or its direct contractors have received information, from a credible source, that would indicate that personnel, property or the ongoing operation are the target of criminal activity.

Response to this activity will be conducted in accordance with the contractor's security plans relevant to the operation.

For further details, refer to the Deep Panuke Security Management Plan (DMEN-X00-RP-EH-90-0023).

3.7 Overdue/Lost Craft

The Skandi Neptune has a vessel monitoring system call NAVTOR.

4 EMERGENCY RESPONSE ORGANIZATIONAL STRUCTURE

4.1 Offshore Emergency Response Organizations

The emergency response organization is structured into three groups:

- Skandi Neptune’s On-Scene Incident Command Team;
- DOF’s Emergency Management Team (onshore); and
- Ovintiv Deep Panuke Emergency Management Team (Halifax-based) along with the Ovintiv Corporate Management Team (Calgary-based).

The overall organizational chart depicted in Figure 4-1 shows relationship between the Contractor On-scene Incident Command Team, the Contractor Emergency Management Team, the Ovintiv Emergency Management Team and the Ovintiv Corporate Management Team.

4.2 Onshore Emergency Response Organization

Figure 4-2 depicts the onshore emergency response organization between Ovintiv and first responders in Goldboro.

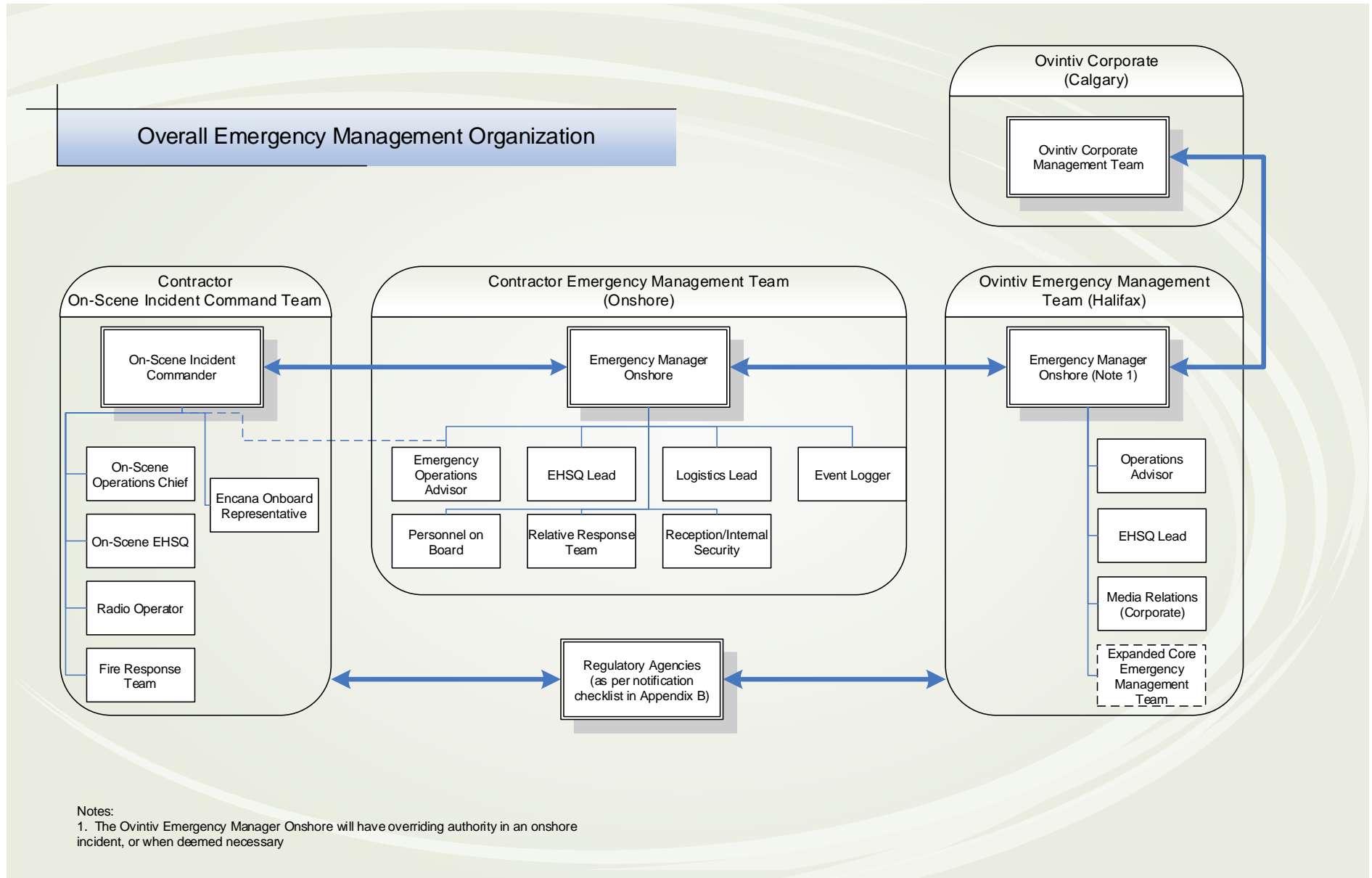


Figure 4-1 Overall Emergency Management Organization

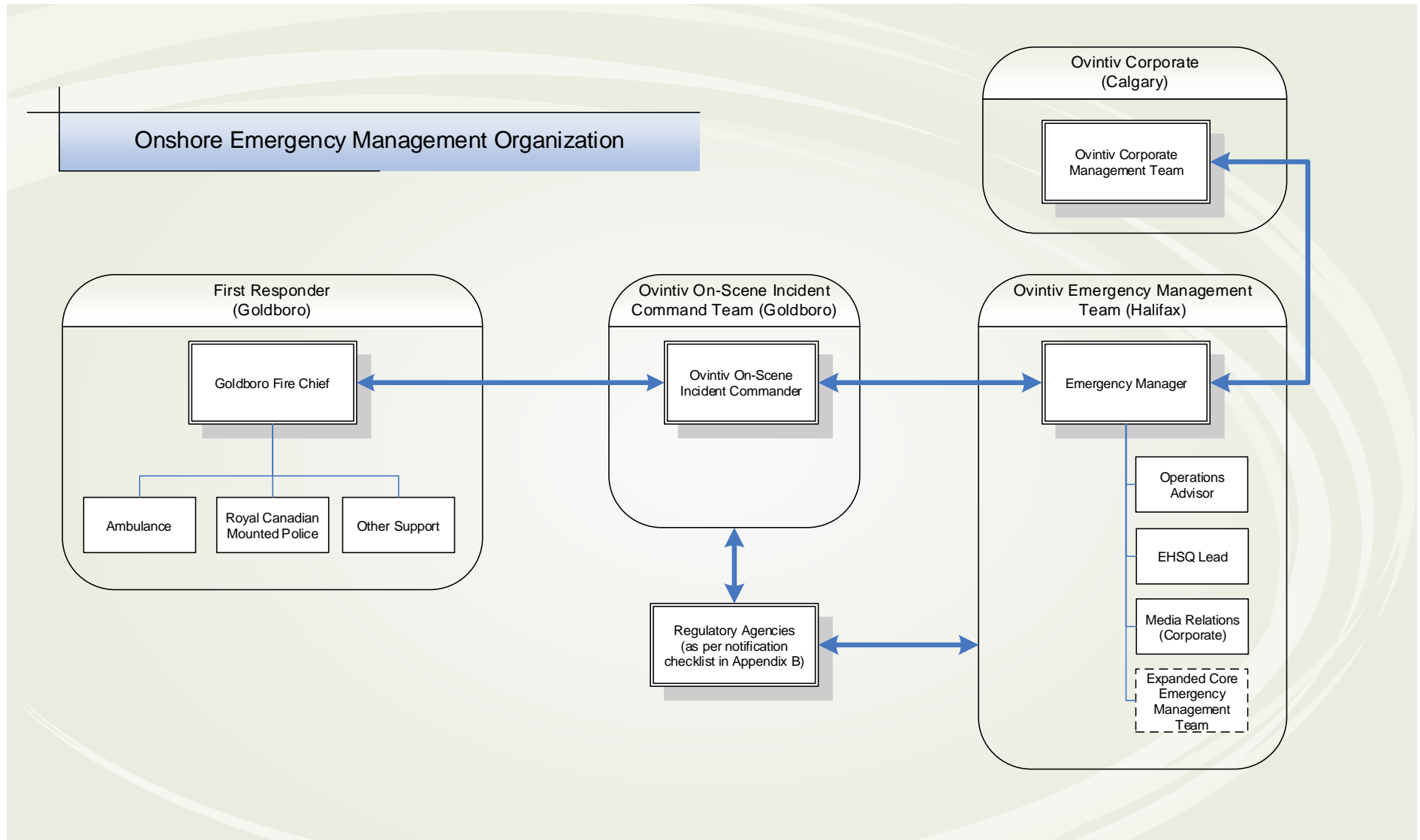


Figure 4-2 Onshore Emergency Management Organization

4.3 Incident Command System

Ovintiv's Deep Panuke Emergency Management Plan is based on the Incident Command System framework. Incident Command System is a comprehensive and practical emergency management system that provides clear communications/information, strict accountabilities, planning and logistical support for any emergency. All Ovintiv programs and plans are built using an Incident Command System methodology as a basis for a response and communication structure.

The Incident Command System organizational framework can be implemented to effectively respond to any type or size of emergency or set of circumstances onshore or offshore. Incident Command System is widely used by both government and industry for effectively organizing and using emergency resources for any type or size of operation. Common methodologies have been developed to identify major functions, personnel and responsibilities. While the Incident Command System framework is designed to assist personnel in responding to emergencies, the primary objective is always to effectively manage the emergency – not necessarily to fully implement all Incident Command System functions.

The specific notification and response measures for the Deep Panuke project have been developed using Ovintiv corporate guidance, such as the Incident Command System, and are described in this Emergency Management Plan.

This Emergency Management Plan also recognizes that the Vessel Master has final authority in situations where the safety of the personnel on their vessel is concerned. Likewise, the plan recognizes that the timely and effective response to an emergency is best controlled by personnel at the scene (i.e., Skandi Neptune On-Scene Incident Commander with direction provided by DOF and Ovintiv's Emergency Management Teams).

While Ovintiv does not require that contractors modify their existing response plans to use Incident Command System, Ovintiv does expect that site-specific emergency procedures outline an organizational (command) structure that can be expanded or collapsed as needs of the emergency change over time. The on-scene supervisory levels to be utilized in each situation should be decided by the Incident Commander based on the nature of the emergency and the scale and complexity of activities.

4.4 Incident Command Team

The DOF/Ovintiv's Incident Command Teams will consist of on-scene responders and are responsible for emergency control and containment, worker and public safety, and environmental monitoring. The organization of the On-Scene Incident Command Team will be a function of the emergency response plan of the contractor managing the emergency onsite. The On-Scene Incident Command Team is led by the On-Scene Incident Commander (e.g. Skandi Neptune vessel Master) who is responsible to implement emergency action plans and operates upon instructions from an Emergency Operations Centre. This role assumes control of the incident scene beyond the first responder awareness level. All on-scene emergency responders and their communications are coordinated and controlled through the On-Scene Incident Commander. Command staff, support staff, and section chiefs support the On-Scene Incident Commander as required. The On-Scene Incident Commander obtains support as necessary from their Emergency Management Team, other area operators, and assisting agencies.

The Contractor On-Scene Incident Command Team are designed to respond rapidly to address emergencies that pose a physical threat to personnel, the environment, and facilities. The team will utilize existing onboard/site specific emergency procedures to deal with most emergencies.

Contractors working for Ovintiv must align their site-specific emergency procedures directly with the IC structure as described in this Emergency Management Plan.

4.5 Emergency Management Teams

The Emergency Management Teams and associated Emergency Operations Centres related to the Deep Panuke project include the following:

- Ovintiv Emergency Management Team – Halifax, NS
- DOF Subsea Canada Emergency Management Team – Mount Pearl, NL

All Emergency Management Teams are comprised of staff with sufficient technical expertise and project knowledge to support the alert and emergency response. As noted above, the Contractor Incident Command Team and Emergency Management Team will take the lead response role in all types of emergencies listed in Section 3, with the exception of onshore emergencies. Ovintiv's Emergency Management Team will run in parallel with the contractor in an overseeing capacity monitoring the progress of the response. In the event that the contractor's response is not sufficient or adequate, Ovintiv will assume control of the response and direct the contractor, as required. Both the Ovintiv and contractor's Emergency Management Teams will continually conduct assessments to determine the risks along with potential impacts and consequences of the emergency. These assessments allow the team to proactively prepare strategies for the potential outcomes of the emergency.

Ovintiv's and the contractor's Emergency Managers may decide to send representatives of their teams to their mutual Emergency Operations Centres to facilitate communication, as deemed necessary.

4.5.1 DOFs Emergency Management Team

The contractor's Emergency Management Team operates from their Emergency Operations Centre; provides support and advice to their On-scene Incident Command Team; and communicates, provides updates and collaborates with the Ovintiv Emergency Manager.

During operations, DOF will act as the On-Scene Incident Command Team on the Skandi Neptune.

4.5.2 Ovintiv Deep Panuke Emergency Management Team / Corporate Management Team

The Ovintiv Deep Panuke Emergency Management Team provides interface with Ovintiv's Corporate office, contractor's Emergency Management Teams, regulatory agencies and media. The Ovintiv Emergency Manager leads the Deep Panuke Emergency Management Team; it updates and draws resources and assistance from Emergency Management Team members.

The Emergency Management Team organization structure and current on-duty team member details are identified in the weekly Emergency Management Team meetings and emailed to the appropriate team members. After the Emergency Manager receives the initial notification (see Section 6.1), he/she decides which members from the Emergency Management Team to mobilize based on the nature and severity of the emergency. Emergency Management Team personnel proceed to the designated Emergency Operations Centre, as directed. The activated Emergency Management Team members will perform both their own functional duties, and as required (even if only for a short time), take on other Emergency Management Team functional role/duties as may be requested by the Emergency Manager until the issues are resolved or additional personnel arrive and their responsibilities are assigned. The Emergency Management Team organizational structure can be adapted to any type or any size of emergency and can be rapidly expanded or reduced as required.

The Ovintiv Halifax-based Emergency Management Team works with the contractor's Emergency Management Team to determine strategic objectives and priorities to manage all actual/potential consequences of the emergency. This responsibility includes assisting in an emergency by mobilizing emergency resources and providing regulatory agency notification and liaison, financial, legal and administrative support, logistical support, public and media communications, technical advice and liaison with senior management of involved companies and partners, including notification to Ovintiv's Corporate Management Team in Calgary, as and when required.

The Ovintiv Corporate Management Team is on a 24-hour call-out basis.

To ensure a cohesive effort, it is important that an effective communication network be continually maintained so that on-scene contractor's Incident Command Team, contractor's Emergency Management Team and Ovintiv Emergency Management Team personnel have access to the necessary information to make effective and informed decisions and take the appropriate action to mitigate the situation.

For onshore emergencies during all project phases, Ovintiv will support the response by providing specific resource groups such as security, local fire departments, etc. Ovintiv may also take the lead role in communicating with local Royal Canadian Mounted Police and regulatory agency.

4.5.2.1 Primary Duties of Deep Panuke Halifax Emergency Management Team

As required, activate the Ovintiv Deep Panuke Emergency Management Plan as follows:

- convene the Halifax Emergency Management Team and proceed to the Emergency Operations Centre;
- establish communications with the vessel's Emergency Manager;
- determine those aspects of the emergency that could require outside expertise;
- provide technical guidance and backup to the vessel in execution of their duties during the event;
- notify and regularly update Ovintiv's Corporate Management Team and regulatory agencies about the emergency, as required; and
- mobilize resources for the emergency.

4.5.2.2 Primary Duties of the Corporate Management Team

As required (typically for Level 3 emergencies), activate the Ovintiv Corporate Response Plan as follows:

- proceed to the Calgary Emergency Operations Centre;
- establish communications with the Halifax Emergency Operations Centre;
- establish a start-up planning meeting and daily meeting schedule /guidelines;
- provide technical/administrative support to Deep Panuke Emergency Management Team as required;
- arrange and obtain approval for major expenditure items resulting from the emergency.

5 DUTIES AND RESPONSIBILITIES

A general outline of emergency response roles is provided below; however, more detailed descriptions and duties of each of the key roles can be found in Appendix G.

To the extent possible, each Emergency Management Team member is responsible to maintain an accurate personal log of their activities during the response to any emergency. Ovintiv's time/event log forms are included in Appendix F.

Because the Emergency Management Plan structure focuses on 'functional roles' rather than existing job titles or key individuals by name, available Corporate personnel can be integrated efficiently into this type of organization. It is not mandatory to assign all positions. One person may be assigned to complete the tasks of one or more functions, as required. It is ensured that all members of the Emergency Management Team filling more than one role or function will be appropriately cross-trained for the specific duties they are responsible for.

5.1 First Responder Awareness Level

Awareness is important for those workers that are likely to witness or to first discover an emergency and who should be able to, through training, initiate an emergency response by notifying the appropriate contact. They take no further action beyond notification.

5.2 DOF's Offshore Incident Command Team

5.2.1 On-Scene Incident Commander (Vessel Master)

This position will be filled by the marine vessel Master.

The On-Scene Incident Commander is responsible for the following:

- overall coordination and direction of all on-scene emergency response;
- safety and health of all personnel onboard the vessel/site;
- protection of surrounding environment and vessel/site; and
- to communicate with the Emergency Manager.

5.2.2 Operations Chief (Tactical Control/Containment Operations)

Typically, first mate or Ovintiv onboard representative (depending upon the location and nature of the emergency) may fill this position. The site-specific emergency response plan will specify the On-scene Operations Chief role.

The Operations Chief is responsible for the following:

- to lead the actual tactical on-scene response operations, such as control, containment, fire fighting, etc.; and
- to report to the Incident Commander.

5.2.3 On-scene EHSQ Officer

The person filling the role of On-scene EHSQ Officer can be, but does not have to be, a safety or medical professional. Where possible, this role should be undertaken by a safety or medical professional. However, if that is not possible, a non-professional can undertake that role if provided the appropriate level of training.

The On-scene EHSQ Officer is responsible for the following:

- the authority to alter or suspend any on-site activities that pose an immediate threat to human life and health or pose significant environmental risk;
- to recommend corrective actions for all other activities that are considered unsafe to the On-Scene Incident Commander;
- to provide safety watch and support for the person(s) involved in tactical on-site emergency response operations; and

- to report directly to the On-Scene Incident Commander.

5.3 DOF's' Emergency Management Team

5.3.1 *Emergency Manager*

General responsibilities include the following:

- Emergency Management Team co-ordination and direction;
- request additional personnel, resources and services as the situation warrants;
- effective management of the emergency response;
- execution of the appropriate level of response for specific emergencies; and
- notify and communicate with Ovintiv's Emergency Manager as appropriate.

5.3.2 *Emergency Operations Advisor*

General responsibilities include the following:

- primary contact for On-scene Emergency Management Team;
- ongoing communication with Ovintiv Onboard Representative;
- operations/technical advisor (determine need for, and order engineering/technical support); and
- ongoing communications with the on-scene Emergency Operations Centre.

5.3.3 *EHS&Q Lead*

General responsibilities include the following:

- verify that the Emergency Management Plan is implemented as required and appropriate;
- liaise with Royal Canadian Mounted Police and the Relative Response Team/Next of Kin Team in the event of a fatality;
- ensure Emergency Operations Centre has relevant documentation and supplies readily available;
- emergency response procedures advisor;
- advise co-ordination of health, safety, and environmental resources; and
- post-emergency:
 - collect copies of the Event Logger's record and all Emergency Management Team personal logs; and
 - record event, including reporting, investigation and follow up.

5.3.4 *Media Response Team*

General responsibilities include the following:

- implement emergency communications protocol; and
- establish joint statement with Ovintiv.

5.3.5 *Logistics Lead*

General responsibilities include the following:

- coordinate mobilization and deployment of emergency support resources;
- notify, activate and provide transport units for medical teams and casualties;
- support the on-scene logistics coordination by confirming and mobilizing personnel and resources (internal and external) and tracking status of ordered resources (including helicopter and vessel support) and the estimated time of arrival;

- mobilize and supervise other staff to assist with procurement of additional personnel, equipment and resources, as required; and
- via the Emergency Operations Advisor, maintain regular contact with the On-Scene Logistics Officer.

5.3.6 *Personnel On Board Coordinator*

General responsibilities include the following:

- manage all information related to the tracking of personnel on board on the affected facilities (i.e., offshore vessel);
- manage all information related to the tracking of personnel on board associated with evacuation and response resources; and
- recommend activation of the Relative Response Team, as and when necessary.

5.3.7 *Event Logger*

General responsibilities include the following:

- maintain an official log and timeline of events associated with the notifications and response to the emergency (internal and external); and
- ensure information on Emergency Operations Centre status boards (white boards) is accurate, updated and communicated to the appropriate personnel.

5.3.8 *Relative Response Team (including Next of Kin Team)*

General responsibilities include implementing relative response procedures.

5.3.9 *Reception/Internal Security*

General responsibilities include the following:

- answer all incoming inquiries via telephone and in person;
- maintain organization and log of incoming messages and calls;
- ensure all messages and calls are directed and transferred to the correct people on the Emergency Management Team in an efficient and timely manner; and
- arrange and maintain an appropriate level of office building security for any incoming visitors or media personnel.

5.4 **Ovintiv Deep Panuke Emergency Management Team**

The Ovintiv Deep Panuke Emergency Management Team consists of a Core Emergency Management Team (Emergency Manager, Emergency Operations Advisor, EHS&Q Lead and Media Response (Corporate)) and an Expanded Core Emergency Management Team which can be called upon as required (Onboard Representative, Commercial/Contracts Lead, Logistics Lead, Personnel on Board Coordinator, Relative Response Lead, Event Logger, and Reception/Internal Security). Each week, an Emergency Manager, EHS&Q Lead, and Media Response Lead (Corporate) will be on-call. The Emergency Operations Advisor's position will be filled from available personnel based on the type and complexity of the emergency. The Core Emergency Management Team positions are described below. Additional information on all positions (Core Emergency Management Team and Expanded Core Emergency Management Team) is provided in Appendix G.

5.4.1 *Ovintiv's Emergency Manager*

The Emergency Manager is the Halifax-based lead for operations in response to the emergency

General responsibilities include the following:

- effective management of the emergency response;
- full and overriding authority to mobilize and direct resources and personnel to support the contractor's Emergency Management Team and minimize real or potential loss or damage to Ovintiv;
- authority to modify standard Emergency Management Team functional assignments (as per the Emergency Management Team Organization Structure and Checklists) or to apply them in a manner that suits the needs of an emergency;
- notify Ovintiv Leadership (as per Appendix B);
- ensure effective and appropriate communication occurs with the Calgary Corporate Management Team, as required (typically for Level 3 emergencies);
- confirm timely notifications of appropriate outside agencies with EHS&Q Lead;
- utilize the Ovintiv Risk Matrix to assist with emergency decision making and to ensure that the emergency response actions remain within Ovintiv's risk tolerances (see Appendix E);
- Emergency Management Team co-ordination and direction;
- determine which functional roles to utilize, depending on the situation;
- execution of the appropriate level of response for specific emergencies;
- notify and communicate with the Contractor's Emergency Managers;
- support and provide guidance / resources to the contractor's Incident Commander if required; and
- evaluate effectiveness of Contractors' response and take over control of response if required.

Whenever the Emergency Management Team deviates from the defined functional role assignments, the Emergency Manager will identify the parameters of an assignment. Although it should be kept to a minimum, the transfer of the assignment of Emergency Manager may take place during activation, if required. When this occurs, all members of the Emergency Management Team are notified of the change in leadership of the team. It is extremely important that the handover of Emergency Manager responsibilities be implemented after briefing of the current situation, including actions taken and actions pending to the point of handover.

5.4.2 *EHSQ Lead*

General responsibilities include the following:

- verify that the Emergency Management Plan is implemented, as required and appropriate;
- liaise with Royal Canadian Mounted Police and the Relative Response Team/Next of Kin Team in the event of a fatality (only for an Ovintiv employee);
- notify regulatory agencies as appropriate;
- ensure Emergency Operations Centre has relevant documentation and supplies readily available;
- advise on emergency management procedures;
- advise co-ordination of health, safety, and environmental resources; and
- post-emergency:
 - collect copies of the Event Logger's record and all Ovintiv Emergency Management Team personal logs; and
 - record event in the Ovintiv Incident Management System, including reporting, investigation and follow-up.

5.4.3 Emergency Operations Advisor

The Emergency Operations Advisor provides advice, support, and guidance to the Incident Commander and Emergency Manager. The Emergency Operations Advisor's role is to facilitate the effective response to the emergency by providing specialized expertise and resources.

General responsibilities include the following:

- primary contact for and ongoing communications with the On-Scene Incident Command Team;
- ongoing communication with Ovintiv Onboard Representative;
- operations/technical advisor (determine need for, and order, engineering/technical support); and
- primary contact with contractors (including Contractor Representative).

5.4.4 Media Response (Corporate)

General responsibilities include the following:

- manage media communications related to the emergency;
- establish joint media statement with contractor(s); and
- issuance of media statement.

5.5 Ovintiv Corporate Management Team

The Ovintiv Corporate Management Team is involved in emergencies that have the potential to significantly impact Ovintiv's employees/contractors, environment assets, financial condition and/or reputation; i.e. it is typically involved in Level 3 emergency response situations.

The Ovintiv Corporate Management Team ensures all resources required to effectively manage the emergency, (i.e., financial, physical, and technical) are made available to the Emergency Manager and/or Incident Commander.

This team is typically not involved in decision processes related to immediate control and containment issues. The role of the Corporate Management Team is to support the Emergency Management Team and to identify and manage long-term and strategic emergency outcomes. This team focuses on high-level corporate issues such as business continuity, corporate insurance, emergency funding, investor and stakeholder relations, legal review and other corporate matters.

6 NOTIFICATION

6.1 Internal Project Notification

Notification and mobilization of both Ovintiv and DOF's' Emergency Management Teams is based on communication from the On-Scene Incident Commander to the Onshore Emergency Managers.

For any emergency (Alert, Level 1, Level 2 or Level 3), the Contractor Incident Command Team responding to the event will immediately notify:

- ***the Ovintiv Emergency Manager using the weekly Emergency response on call sheet and***
- ***DOF's on-call onshore Emergency Manager.***

When calling the Ovintiv Deep Panuke On call Emergency Manager, the DOF Incident Command Team will provide the information included in the Initial Emergency Notification Form included in Appendix A. Ovintiv will issue a new on-call list every Thursday to DOF and the Skandi Neptune.

The appropriate initial response and emergency classification will be determined by the DOF Incident Command Team. Confirmation of an appropriate response and classification will be undertaken by the DOF Emergency Manager in consultation with the Ovintiv Emergency Manager.

On-call responsibilities provided on an Emergency Contact List include the names of those persons who will be on-call for the upcoming week (Appendix C). This list has provision for initial alert personnel as well as support activity personnel and their alternates. The list is a live document that is updated and circulated weekly to reflect the persons on the Emergency Management Team for the week specified.

6.2 External Regulatory Notification

Ovintiv is responsible for ensuring that all relevant agencies and authorities have been contacted. Required notifications and contact details are summarized in the Emergency Notification Checklist provided in Appendix B.

6.2.1 CNSOPB

6.2.1.1 Emergency Notification

The CNSOPB is the lead regulatory agency for offshore oil and gas activities.

For any Level 1, 2 or 3 emergency (but not Alert), Ovintiv will notify the CNSOPB immediately and will maintain communication with the CNSOPB during the emergency.

The CNSOPB maintains a 24-hour on-call service (902) 496-4444 to receive emergency notifications.

Ovintiv will provide the CNSOPB Duty Officer with the information from the Initial Emergency Notification Form provided in Appendix A.

Please note that the CNSOPB only needs to be called for musters in case of actual or potential emergency situations; not for a muster resulting from a false alarm. (The CNSOPB will be notified via the written notification process for all musters, including false alarms.)

6.2.1.2 Incident Notification and Reporting

In parallel to the emergency response process, the CNSOPB has a separate incident notification and reporting process described in the [Incident Reporting and Investigation Guidelines \(2018\)](#). This process stipulates two types of notifications to the Board – immediate verbal notification and written notification (within 24 hours).

Some CNSOPB incidents categories overlap with Ovintiv's emergency categories described in this document. Thus, it is possible that the emergency notification to the CNSOPB mentioned above addresses the requirements of an incident's immediate verbal notification. In that case, follow-up written notification and reporting must be submitted to the CNSOPB as per the guidelines using the CNSOPB incident notification form and incident investigation report form posted on the CNSOPB website. For other incidents that do not trigger the emergency response process, the Contractor will

notify Ovintiv through the Emergency Manager or via email (incident report) and Ovintiv will provide incident notification and reporting to the CNSOPB as per the guidelines.

CNSOPB incident notification and reporting requirements are summarized in the Incident Reporting Checklist included in Appendix D.

6.2.2 *Canada Energy Regulator/Transportation Safety Board*

The Deep Panuke export pipeline is also regulated by the Canada Energy Regulator.

The Canada Energy Regulator (formerly the National Energy Board) is the lead federal regulatory agency for all emergencies/incidents that occur on Canada Energy Regulator-regulated facilities. However, the Transportation Safety Board of Canada may investigate an incident that occurs on a Canada Energy Regulator-regulated pipeline.

6.2.2.1 Emergency Notification

All export pipeline (including riser) related emergencies will be reported immediately to the following:

- Transportation Safety Board Occurrence Hot Line; and
- Canada Energy Regulator.

In addition, as requested by the Canada Energy Regulator, Ovintiv will notify the Canada Energy Regulator immediately for any other (non-pipeline related) emergency expected to get media attention.

Ovintiv will provide the Transportation Safety Board and/or Canada Energy Regulator with the information from the Initial Emergency Notification Form provided in Appendix A.

6.2.2.2 Incident Notification and Reporting

The Canada Energy Regulator shares responsibility with the Transportation Safety Board for incident investigation. The Canada Energy Regulator investigates pipeline incidents to determine whether its regulations have been followed and if those regulations may need to be changed. The Transportation Safety Board investigates the cause and contributing factors. The Canada Energy Regulator also monitors excavation activity by third parties near pipelines to ensure compliance with existing regulations.

For incidents as defined by the Canada Energy Regulator (see Definitions section):

- For “immediately reportable events” defined as the following (National Energy Board Event Reporting Guidelines (2018)):
 - call Transportation Safety Board reporting hotline within 3 hours; and
 - report the event through the Canada Energy Regulator web-based Online Event Reporting System also within 3 hours.
- For all other events:
 - report the event through the Canada Energy Regulator web-based Online Event Reporting System as soon as possible and no later than twenty-four hours after the event was discovered.

See additional information in the Incident Reporting Checklist included in Appendix D.

6.2.3 *Joint Rescue Coordination Centre*

The Joint Rescue Coordination Centre Halifax is responsible for the coordination of all search and rescue operations associated with aircraft and marine emergencies in eastern Canada. The centre is located in the Maritime Forces Atlantic Headquarters building, in the Canadian Forces Base Halifax Dockyard. If the emergency involves, or has the potential to involve, any element of marine search and rescue, or for any situation that involves a muster of personnel on the offshore vessel, Ovintiv will ensure that immediate notification by the contractor is made to the Joint Rescue Coordination Centre 24-hour contact number:

6.2.4 *Marine Pollution*

If the emergency pertains to marine pollution (e.g. spill to the water), the contractor will ensure that immediate notification is made to the Canadian Coast Guard Marine Pollution 24-hour contact number.

6.2.5 *Transport Canada Marine Safety*

If the incident includes fatality, missing person or injury/illness to personnel working on a Canadian flagged standby or support vessel that is regulated under Part II of the Canada Labour Code, Ovintiv should ensure that the employer of the affected person reports the incident to the Coast Guard Regional Operations Centre who will then transfer the notification to Transport Canada Marine Safety.

In addition, the master or owner of a Canadian flagged vessel, which has sustained damage affecting the seaworthiness or efficiency of that vessel, should report the matter directly to the regional director of Transport Canada Marine Safety.

6.2.6 *Royal Canadian Mounted Police*

All incidents involving criminal activity (including serious injuries), terrorism, fatalities or missing persons must be reported to the Royal Canadian Mounted Police.

6.2.7 *Provincial Workplace Compensation*

The *Accord Acts* direct employers of any marine installation or structure to comply with applicable sections of the *Worker's Compensation Act* of Nova Scotia (WCA). Part of these obligations includes mandatory reporting of injuries and illnesses to the Workers' Compensation Board of Nova Scotia where circumstances may entitle a worker to compensation. The legislation, guidelines, reporting information and standardized report forms are available from the Workers' Compensation Board at www.wcb.ns.ca. Reporting of injuries or illnesses to these agencies will be in accordance with their relative requirements.

7 EMERGENCY PREPAREDNESS TRAINING

7.1 **Training, Exercises and Competency Development**

In accordance with the Ethos standard on Incident and Emergency Management, the Ovintiv Deep Panuke Management Team is committed to ensure that persons filling roles in the Emergency Management Team are competent at performing the duties associated with this Emergency Management Plan. Training and exercises will be conducted to build the confidence and effectiveness of the Emergency Management Team. For further details on training and competency assurance refer

to Ethos, the Project Safety Plan (DMEN-X00-PR-EH-00-0009), and the Decommissioning and Abandonment Safety Plan (DCEN-X00-PR-EH-00-0001).

A training session will be conducted to ensure that personnel are fully competent with the emergency response planning and procedures. Emergency response training exercises will involve Ovintiv Deep Panuke project personnel, DOF representatives, and/or mutual aid partners and regulatory agencies. This exercise allows responders to practice and thereby become more familiar with their roles and identify opportunities to improve emergency preparedness. Training may include any of the following types of exercises:

- **Actual Emergencies:** An actual emergency, when adequately evaluated and documented, can serve as an effective training tool. The evaluation will meet established Ovintiv reporting criteria to fulfill the minimum exercise requirements.
- **Tabletop Exercises:** Tabletop exercises are required periodically during work activities. Tabletops are informal exercises used to review the adequacies of resource allocations, as well as roles and responsibilities of personnel. A tabletop emergency exercise to test the emergency communications system is typically conducted prior to mobilization of new facilities/vessels/sites. Tabletop emergency exercises will also identify areas for improvement within the Emergency Management Plan for Ovintiv and its contractors.
- **Emergency Communication Exercises:** During an emergency communication exercise, responders undertake their roles from assigned locations using the communication equipment that would ordinarily be utilized in a real emergency.

A report of all exercises and their results are to be maintained for reference, continuous improvement and audit purposes. The report will contain the following elements:

- type of exercise;
- scope of exercise and its objectives;
- persons involved;
- outcome of objectives;
- lessons learned;
- continuous improvement plan; and
- implementation results.

To effectively test the ability to implement a plan, the following elements should also be considered based on pre-established goals of the exercise:

- notification
- mobilization
- deployment
- internal and external personnel involvement
- emergency operations centre activation
- record keeping
- evaluation

The Deep Panuke EH&S Manager will notify the CNSOPB of scheduled exercises and invite representatives to participate or observe, as and when required.

As previously stated, DOF has specific emergency response plans for their assets. As the operator of record, Ovintiv is accountable for ensuring that correct procedures and adequate responses are implemented. It is also the interface lead with government and other external agencies.

8 SECURITY MANAGEMENT IN AN EMERGENCY

The Ovintiv Security Management Plan (DMEN-X00-RP-EH-90-0023), the Ovintiv Security Management Guide (2010), and the Reception Desk Safety and Security Procedures (DMEN-X00-PR-EH-90-0003) provide detailed guidance on the process to follow in a security emergency response. Contact details for security organizations are included in the Emergency Notification Checklist provided in Appendix B.

9 EMERGENCY MEDIA RELATIONS

All media relations are to be strictly controlled through the Deep Panuke Emergency Manager. Media statements will also be coordinated through Ovintiv Corporate Communications as well as with contractor(s), where possible.

10 RELATIVE RESPONSE

The Ovintiv Relative Response Guide (Doc. No. EC98-1S-0067) provides detailed guidance on the process to follow in the response to Ovintiv staff relatives and next of kin during emergencies. Has a similar system to manage their personnel.

11 POST-EMERGENCY PROCEDURES

The decision to remove the emergency level status and resume normal operations will be made by the Ovintiv Emergency Manager. This decision may require the approval of regulatory authorities.

Government agencies that could be involved in the decision to resume normal activities may include the CNSOPB, Canada Energy Regulator, police, Joint Rescue Coordination Centre, worker health and safety authorities, and environmental protection agencies.

Post-emergency activities for the response teams may include, but are not limited to:

- response team stand-down notification;
- critical emergency stress debriefing;
- support to response team staff;
- communications;
- document control;
- incidents investigations and report follow-up;
- post-emergency de-briefing; and
- post-emergency reports.

The Post-Emergency Evaluation Form is provided on the following page.

Post-Emergency Evaluations	
The Emergency Management Team is responsible to co-ordinate post-emergency activities or response teams. These include but are not limited to:	
Response Team Stand-Down Notification	
<input type="checkbox"/>	Ensure that all response team members are notified about the emergency stand-down.
<input type="checkbox"/>	Ensure that all external contacts (government, investment community, etc.) are notified about the stand-down.
<input type="checkbox"/>	Advise all team members to document their participation and call-down notifications.
<input type="checkbox"/>	Prepare and release a statement to the media as required.
<input type="checkbox"/>	Provide updates to employees about the emergency.
<input type="checkbox"/>	Notify and conduct debriefing meetings with stakeholders as required.
Critical Emergency Stress Debriefing	
<input type="checkbox"/>	Ensure critical post-emergency services are provided for employees, first responders, families, members of the public and next-of-kin.
Support to Response Team Staff	
<input type="checkbox"/>	Ensure support from Emergency Management Team continues for personnel, as required.
<input type="checkbox"/>	Ensure follow-up on incident reporting and investigation.
Public Assistance and Support	
<input type="checkbox"/>	Ensure ongoing support to the public affected.
<input type="checkbox"/>	Support Business Unit or Site where necessary to visit all members of the public who have been directly affected by the incident and assist in addressing their outstanding concerns or problems.
<input type="checkbox"/>	Assist, where required, in providing all affected public with post-emergency Ovintiv contacts and telephone numbers. If an emergency has affected a large number of the public, a temporary public relations office should be set up in the affected community.
<input type="checkbox"/>	Schedule follow-up meetings with the public to ensure that concerns are fully addressed.
<input type="checkbox"/>	Ensure all public damage claims are dealt with in an expedient manner.
Communications	
<input type="checkbox"/>	Ensure all communication issues are addressed following the emergency; these include the public, media, communities, government, investor relations, etc.
Document Control	
<input type="checkbox"/>	Collect and compile all emergency records, event logs, forms and other documentation that may be relevant to the incident.
<input type="checkbox"/>	Make copies of originals and work only from the copies.
<input type="checkbox"/>	Securely store all emergency documentation.
<input type="checkbox"/>	Ensure that all reports are provided to senior management as required.
Incident Investigations and Report Follow-up	
<input type="checkbox"/>	Participate in incident investigations, as required.
<input type="checkbox"/>	Ensure that the Business Unit receives support required to assist in the incident investigation process.
<input type="checkbox"/>	Obtain a copy of the incident investigation report and any follow-up documentation to assist in the de-briefing meetings.
<input type="checkbox"/>	Third party investigations by regulators, insurance companies and others may be required, given the complexity and severity of the incident. It is important to fully co-operate with all third-party investigators; thus the following guidelines should be adhered to:

<ul style="list-style-type: none"> • Give third party investigators only the information they request, • Always speak the truth and never speculate, and • Ensure legal counsel is present if the investigator is from a body that has the authority to prosecute or file civil claims. 	
Post Emergency De-Briefing	
<input type="checkbox"/>	De-briefing sessions should be held within a few days following the emergency with all response team member leaders. These sessions should focus on the response and opportunities for improvement.
<input type="checkbox"/>	These sessions should be recorded and agreed changes implemented where applicable into the response plans.
Post-Emergency Reports	
<p>A post-emergency report contains analyses and evaluation of the emergency. The report will provide advice on how to prevent a reoccurrence, make emergency preparedness recommendations, identify immediate and root causes of the incident, if known, and make recommendations for management of change. Management of change is required for temporary or permanent changes in design, construction or operation of an asset, introduction of equipment, change in personnel integral to the operation of the asset and introduction or modification to procedures.</p> <p>Post-emergency reports are limited to facts should be limited to indisputable information such as the location of the emergency, when it occurred, who responded, the number of injuries, casualties or property type damage. These reports may also include things such as:</p>	
<input type="checkbox"/>	Sequence of events that led up to the emergency, during the emergency and follow-up of emergency.
<input type="checkbox"/>	Details relating to the severity and the potential of reoccurrence of the emergency.
<input type="checkbox"/>	A root-cause determination of the cause of the emergency.
<input type="checkbox"/>	Evaluation of the emergency management response.
<input type="checkbox"/>	Systems used for internal and external communications.
<input type="checkbox"/>	Effectiveness of communication efforts with the media, community and government.
<input type="checkbox"/>	Public safety actions.
<input type="checkbox"/>	All actions taken to reduce risks and liability.
<input type="checkbox"/>	Assessments of legal or environmental issues that were raised because of the emergency or the Company's response actions.
<input type="checkbox"/>	Plans to reduce the risk of a similar emergency including recommendations for future actions and improvements to the emergency preparedness program.
<p>In addition to internal company reports, there may be a detailed report(s) prepared by other agencies such as the police, fire department, and government departments. In the case of certain emergencies, the regulating body has jurisdiction over an incident investigation and becomes the prime investigator, being directly responsible to identify the cause of the incident. There are times where it may become necessary for Ovintiv investigators to obtain permission from regulatory bodies to carry out an investigation following an emergency.</p>	

APPENDIX A: OVINTIV INITIAL EMERGENCY NOTIFICATION FORM

DMEN-X00-NT-EH-91-0001.011

GENERAL INFORMATION

Completed by: _____ Organization: _____

Date: _____ Time: _____

Caller's Name: _____ Caller's Organization: _____

Caller can be reached at: _____

EMERGENCY

Emergency Level: Alert Level 1 Level 2 Level 3

Time of Incident: _____

Location of Incident: _____

Emergency Classification:

man-overboard / missing person fatality major injury

fire / explosion collision

spill adverse environmental conditions

security incident overdue/lost craft

No. of personnel injured: _____

No. of personnel missing: _____

Any spill to the ocean – substance: _____

– estimated volume: _____

Other details: _____

REPORTING

Have you notified the following:

Joint Rescue Coordination Centre Canadian Coast Guard

Transport Canada Marine Safety (vessel) Transport Canada Aviation (helicopter)

Security Medical Services Provider

ExxonMobil M&NP

Others (specify): _____

APPENDIX B: EMERGENCY NOTIFICATION CHECKLIST

Personal contact information redacted for privacy

Personal contact information redacted for privacy

Personal contact information redacted for privacy

Personal contact information redacted for privacy

APPENDIX D: **INCIDENT REPORTING CHECKLIST**

(Guidelines section #) Incident Category	Reporting Format	Notes
6.1 Fatality		
All fatalities on a marine installation or structure, passenger craft, vessel or aircraft	Immediate Verbal Notification	Shall also be reported to RCMP and Province's Chief Medical Examiner. If Chief Medical Examiner determines that the death was due to natural causes, this incident will not be classified as fatality.
Any work-related death that occurs within one year after the incident	Written Notification	
6.2 Missing Person		
All missing persons on a marine installation or structure, passenger craft, vessel or aircraft	Immediate Verbal Notification	
6.3 Occupational Illness		
Any abnormal condition or disorder caused by prolonged or repeated exposure to environmental factors associated with employment at the workplace. May be caused by inhalation, absorption, ingestion, injection or direct contact with a hazard, as well as exposure to physical and psychological hazards. The effects of ordinary workplace stress (i.e. inherent to job duties) are not considered to be a psychological hazard.	Written Notification	
6.4 Occupational Injuries		
6.4.1 Major Injury		
Major injury (see below). In addition, any Incident where a Major Injury was narrowly avoided or for which an employee is sent onshore for further medical assessment. <ul style="list-style-type: none"> • Amputation • Skeletal injuries: bone fractures (including chipped or cracked bone or hairline fracture) and dislocation of shoulder, hip, knee or spine; not including fractures to fingers, toes, or broken nose • Burns only if injured person becomes unconscious, is admitted to the hospital, or requires resuscitation • Injuries to internal organs only if injured person becomes unconscious, is admitted to the hospital, or requires resuscitation • Eye injuries resulting in loss of sight (permanent or temporary) • Eye injuries resulting from penetrating eye injury or a chemical or hot metal burn to the eye • Acute illness caused by exposure to chemicals or biological agents or anything that produces a significant negative physiological effect e.g. decompression illness, loss of hearing, and radiation sickness • Hypothermia or heat induced illness (unconsciousness) • Any injury resulting in unconsciousness, resuscitation, or admittance to the hospital 	Immediate Verbal Notification	
6.4.2 Lost/Restricted Workday Injury		
An Occupational Injury other than a "Major Injury" which prevents an employee from reporting to work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the injury occurred, whether or not that subsequent day is a working day for that employee. Any day includes rest days, weekend days, leave days, public holidays, or days after	Written Notification Number of lost/restricted workdays in quarterly statistics report	
6.4.3 Minor Injury		
Employment injuries or an Occupational Illness for which medical treatment is provided but is not a Major Injury or lost/restricted workday injury	Quarterly statistics report	Notify CNSOPB if event could possibly generate call to media
Minor injuries that have the potential for at least a lost/restricted workday injury	Written Notification	
6.5 Medevac		
Any medevac shall be reported whether occupational or non-occupational	Immediate Verbal Notification	Non-occupational medevacs do not require an investigation
6.6 Fire/Explosion		
If results in injury to personnel, impairment to Critical Equipment or if fixed fire suppression systems are activated manually or automatically, or otherwise poses a threat to the health and safety of personnel	Immediate Verbal Notification	
All other fires or explosions, or an event which under slightly different circumstances, had the potential to result in a fire or explosion	Written Notification	
6.7 Collision		
If collision results in an injury to personnel, spill or unauthorized discharge or impairment to Critical Equipment	Immediate Verbal Notification	
All other collisions, or Incidents, which under slightly different circumstances, had the potential to result in a collision	Written Notification	
6.8 Loss of Well Control		
Where the duration of the uncontrolled or diverted flow is greater than 5 minutes and results in: <ul style="list-style-type: none"> • An uncontrolled release of formation or other well fluids • An uncontrolled flow between two or more exposed formations (this includes uncontrolled flow resulting from failures of either surface or subsurface equipment or procedures) or • A flow of formation or other well fluids through a diverter 	Immediate Verbal Notification	

(Guidelines section #) Incident Category	Reporting Format	Notes
<p>6.9 Well Control Incident</p> <p>Any loss of well control as described in Section 6.8, including:</p> <ul style="list-style-type: none"> • Unintended entry of water, gas, oil, or other formation fluid into wellbore (e.g. kick) • An increase in well pressure with closed blowout preventer • Implementation of well kill procedures 	Immediate Verbal Notification	
<p>6.10 Hydrocarbon Release</p> <p>Definition: Unintentional or uncontrolled release of gas or liquid hydrocarbons from the processing, storage or offloading systems on a production or drilling installation. Does not include releases that result from processes designed into the production and processing systems to respond to upset conditions (e.g. blowdown system).</p>		
<p>Major Hydrocarbon Release:</p> <ul style="list-style-type: none"> • A gas release rate above 1 kg/sec for at least 5 minutes duration • The amount of gas released is greater than 300 kg or • The amount of liquid released is greater than 500 L 	Immediate Verbal Notification	
<p>Significant Hydrocarbon Release:</p> <ul style="list-style-type: none"> • A gas release rate between 0.1 kg/sec and 1 kg/sec and lasts for 2 to 5 minutes • The amount of gas released is between 1 kg and 300 kg or • The amount of liquid released is between 50 L and 500 L 	Written Notification	
<p>6.11 Leak of Hazardous Substance</p> <p>An accidental accumulation, spill or leak of a hazardous substance (such as but not limited to a release of a chemical in exceedance of the threshold limit value as adopted by the latest version of American Conference of Governmental Industrial Hygienists Threshold Limit Values and Biological Exposure Indices, a loss of containment of flammable or combustible materials with potential for ignition or a loss of containment of material operating at high temperature or high pressure, etc) with potential for harm on a marine installation or structure or passenger craft. Leaks of hazardous substances are to be reported if personnel could have been present in the area at that time but due to particular circumstances were not.</p>	Written Notification	
<p>Any Incident where a Major Injury was narrowly avoided</p>	Immediate Verbal Notification	
<p>6.12 Unauthorized Discharge</p> <p>Definition:</p> <ul style="list-style-type: none"> • Discharge from production or drilling installation in amount/concentration in excess of limits described in EPP, or substance/manner of discharge not described in that plan • Toxic fluid discharged from diving installation or accommodations installation • Discharge from vessel conducting geophysical or other data gathering activities that constitutes a threat to the environment 		UDs include the following: <ul style="list-style-type: none"> • Discharge of open drains water with >15 mg/L OIW • PFC seawater system discharge with resid. chlorine >2 mg/L • Discharge of chemicals (non-hydrocarbon ROV hydraulic fluid, methanol, glycol, completion fluids, etc) not described in EPCMP
<p>For concentration-based limits, UD with concentration greater than two times the maximum concentration limit UD >100 litres</p>	Immediate Verbal Notification	
<p>Other UD</p>	Written Notification	Submission of investigation report not required unless requested
<p>6.13 Spills</p> <p>Definition: any discharge of petroleum (e.g. crude oil, natural gas, condensate, lubricants, hydraulic oils, fuels, petroleum based synthetic drilling fluids, or any other refined petroleum product) that enters the sea, other than one authorized under the Accord Acts or Regulations</p>		
<p>For concentration-based limits, a spill with concentration greater than two times the maximum authorized concentration limit Spill >25 litres</p>	Immediate Verbal Notification	
<p>Other spills All incidents that, if under slightly different circumstances, would have had the potential to result in a spill</p>	Written Notification	Submission of investigation report not required unless requested
<p>6.14 Adverse Environmental Conditions</p> <ul style="list-style-type: none"> • Forecast or actual physical environment conditions that may result in loads or load effects in excess of max operating conditions • Precautionary measures (downmanning, securing the well, depressurize flow lines) initiated due to threatening Environmental Conditions 	Immediate Verbal Notification	
<p>6.15 Security</p> <p>Any suspicious act or circumstance that threatens the security of a marine installation or structure or vessel or an interface between any of them (e.g. cargo or personnel transfer)</p>	Immediate Verbal Notification	
<p>Significant threat, breach or incident regarding security which poses a threat to the safety of the marine installation or structure or to employees at a workplace or passenger craft</p>	Notify Chief Safety Officer ASAP	

(Guidelines section #) Incident Category	Reporting Format	Notes
<p>6.16 Implementation of Emergency Response Plans</p> <p>In response to imminent threat to safety of personnel, marine installation or structure, passenger craft, vessel or aircraft or to the environment:</p> <ul style="list-style-type: none"> • Overdue contact with a marine installation or structure, passenger craft, vessel or aircraft • Person overboard • Unauthorized vessel entering the safety zone of a marine installation or structure that is unable to be reached by radio or for which a support craft is sent to intercept • Precautionary evacuation or downmanning • Securing the well or depressurization of flow lines • Emergency landings of helicopters • Alert to search and rescue resources • Deployment of SAR helicopter or requesting emergency response standby for landing in response to in-flight issues with a helicopter 	<p>Immediate Verbal Notification</p>	<p>These instances do not always give cause to undertake an investigation, unless an issue was identified with the procedures and/or equipment that were in place or the actions taken in response to dealing with this type of event</p>
<p>Any other unplanned musters</p>	<p>Written Notification</p>	
<p>6.17 Impairment/Damage to Critical Equipment</p>		
<p>Definition: Impairments/damages to safety or environmentally Critical Equipment on a marine installation or structure, passenger craft, vessel or aircraft.</p>	<p>For installations, must be reported to CA</p>	
<ul style="list-style-type: none"> • The damage or impairment poses an immediate and ongoing threat to the integrity or emergency preparedness (from a safety or environmental protection perspective) of a marine installation or structure, passenger craft, vessel or aircraft • The damage or impairment resulted in a fatality or Major Injury, or a fatality or Major Injury was narrowly avoided 	<p>Immediate Verbal Notification</p>	
<ul style="list-style-type: none"> • The Critical Equipment or system is not able to meet minimum requirements as prescribed by the associated Regulations • For drilling and production installations: <ul style="list-style-type: none"> - The impairment results in production shut-in or drilling suspension - The Critical Equipment/system is required as a Barrier to prevent an Incident, including a pollution event - The Critical Equipment/system is not able to meet its performance requirement for meeting its functionality, availability/reliability or survivability criteria in accordance with the installation safety plan or EPP (i.e. equipment/system is required to meet the installation's target levels of safety) • For Support Craft and Passenger Craft: <ul style="list-style-type: none"> - In accordance with the functional specification that has been outlined for support craft used in support of a drilling or prod installation - For other support craft used in support of other operations, if there is an impairment to equipment that is required by the regs to be operational 	<p>Written Notification</p>	<p>An impairment to safety or environmentally Critical Equipment which was identified during planned inspection, testing and/or maintenance, need not be reported unless it is identified that the impairment existed while the equipment was in operation or the equipment is out of service for a period longer than its expected unavailability period as determined by the installation's safety plan. See App A for examples of what types of impairments to safety and environmentally Critical Equipment require immediate verbal and written notification to the Boards.</p>
<p>6.18 Contact with Fishing Gear, Marine Mammals or Sea Turtles</p>		
<p>For geophysical, geological, environmental or geotechnical programs, any contact with fishing gear or any contact or entanglement of equipment with, a marine mammal or sea turtle</p>	<p>Written Notification</p>	<p>Include exact time and location, description of any identifying markings observed on affected gear, any injuries and animal species if possible. These instances do not always give cause to an investigation.</p>
<p>6.19 Helicopter Occurrences</p>		
<p>Incidents involving a helicopter:</p> <ul style="list-style-type: none"> • accident as defined under Aviation Occurrences as per paragraph 2(1)(a) of TSB Regs (<i>copied at the end of this document for reference</i>) • Fatality, missing person or Major injury • Fire/explosion or collision meeting criteria for immediate verbal notification • Adverse environmental conditions • Implementation of emergency response plans in response to imminent threat to the safety of personnel or the helicopter (e.g. helicopter SAR or airport emergency response resources are deployed for helicopter flight occurrence or as precaution) • Impairment/damage that compromise ongoing integrity or emergency preparedness of helicopter (e.g. loss of engine, loss of communication systems, impairment to liferafts, etc) • Hazardous occurrence with potential for a fatality or Major Injury (i.e. potential for loss or damage of the helicopter) 	<p>Immediate Verbal Notification</p>	

(Guidelines section #) Incident Category	Reporting Format	Notes
Incidents involving a helicopter: <ul style="list-style-type: none"> • “Reportable aviation incident” as per paragraph 2(1)(b) of TSB Regs (<i>copied at the end of this document for reference</i>) • Occupational illness or lost/restricted workday injury • Fire/explosion or collision meeting criteria for written notification • Leak of hazardous substance • Impairment/damage to critical equipment (e.g. impairment of safety critical sensors) • Near miss (e.g. small leaks from lubrication systems for safety critical equipment, improper loading of a helicopter, improper carrying of freight in a passenger cabin, flying with impaired personal protective equipment) • Helicopter has to return to base or suspend operations upon landing at an offshore facility, as a result of issue with aircraft or flight crew • Dedicated SAR helicopter resources become unavailable 	Written Notification	
Incidents not involving a helicopter: <ul style="list-style-type: none"> • Passengers are debriefed following a flight • The helicopter contractor notifies the operator (e.g. notice to operators) in relation to a helicopter flight occurrence • Prior to a press release or press conference related to a helicopter flight occurrence involving a production or drilling installation 	Written Notification	These instances do not give cause to undertake an investigation unless an issue was identified with the procedures in place or the response actions taken
6.20 Near Miss		
Definition: Any event that, if under slightly different circumstances, would likely have caused harm to personnel, an unauthorized discharge or spill or an imminent threat to the safety of a marine installation or structure, passenger craft, vessel or aircraft. Examples include: <ul style="list-style-type: none"> • Dropped objects • Use of defective PPE or not using PPE when required that is immediately dangerous to life and health • Not implementing a control identified or required as part of the permit to work process that is immediately dangerous to life and health • Changes which could affect the safety of personnel, protection of the environment or the integrity of a marine installation or structure, passenger craft, vessel or aircraft being implemented without going through the MOC process • Large object drifting in an uncontrolled manner in dangerous proximity to a marine installation or structure, passenger craft or vessel • Free fall of an elevator, basket or other device for moving passengers or freight 		
If event had a potential for a fatality or Major Injury	Immediate Verbal Notification	
If event had a potential for a lost/restricted workday injury or Occupational Illness, pollution, fire, explosion, loss of containment of any fluid from a well or posed an imminent threat to the safety of a person, marine installation or structure, passenger craft, vessel or aircraft	Written Notification	

FOR REFERENCE: Transportation Safety Board Regulations (SOR/2014-37); paragraph 2(1) Report to the Board

2 (1) The owner, operator, pilot-in-command, any crew member of the aircraft and any person providing air traffic services that have direct knowledge of an occurrence must report the following aviation occurrences to the Board if they result directly from the operation of an aircraft:

- (a) in the case of an accident
 - (i) a person is killed or sustains a serious injury as a result of
 - (A) being on board the aircraft,
 - (B) coming into direct contact with any part of the aircraft, including parts that have become detached from the aircraft, or
 - (C) being directly exposed to jet blast, rotor down wash or propeller wash,
 - (ii) the aircraft sustains structural failure or damage that adversely affects the aircraft's structural strength, performance or flight characteristics and would normally require major repair or replacement of any affected component, except for
 - (A) engine failure or damage, when the damage is limited to the engine, its cowlings or accessories, or
 - (B) damage limited to propellers, wing tips, antennae, tires, brakes, fairings or small dents or puncture holes in the aircraft's skin, or
 - (iii) the aircraft is missing or inaccessible; and

- (b) in the case of an incident involving an aircraft having a maximum certificated take-off weight greater than 2 250 kg, or of an aircraft being operated under an air operator certificate issued under Part VII of the Canadian Aviation Regulations
 - (i) an engine fails or is shut down as a precautionary measure,
 - (ii) a power train transmission gearbox malfunction occurs,
 - (iii) smoke is detected or a fire occurs on board,
 - (iv) difficulties in controlling the aircraft are encountered owing to any aircraft system malfunction, weather phenomena, wake turbulence, uncontrolled vibrations or operations outside the flight envelope,
 - (v) the aircraft fails to remain within the intended landing or take-off area, lands with all or part of the landing gear retracted or drags a wing tip, an engine pod or any other part of the aircraft,
 - (vi) a crew member whose duties are directly related to the safe operation of the aircraft is unable to perform their duties as a result of a physical incapacitation which poses a threat to the safety of persons, property or the environment,
 - (vii) depressurization of the aircraft occurs that requires an emergency descent,
 - (viii) a fuel shortage occurs that requires a diversion or requires approach and landing priority at the destination of the aircraft,
 - (ix) the aircraft is refuelled with the incorrect type of fuel or contaminated fuel,
 - (x) a collision, a risk of collision or a loss of separation occurs,
 - (xi) a crew member declares an emergency or indicates an emergency that requires priority handling by air traffic services or the standing by of emergency response services,
 - (xii) a slung load is released unintentionally or as a precautionary or emergency measure from the aircraft, or
 - (xiii) any dangerous goods are released in or from the aircraft.

Incident Category	Reporting Format	Notes
<p>Pipeline (including riser) related incidents as defined by the NEB OPR 1999</p> <p>Occurrence that results in:</p> <p>(a) the death of or serious injury to a person; Serious injury is an injury that results in: a) the fracture of a major bone b) the amputation of a body part c) the loss of sight in one or both eyes d) internal hemorrhage e) third degree burns f) unconsciousness g) loss of a body part or function of a body part</p> <p>(b) a significant adverse effect on the environment [including spills offshore, nearshore, and near watercourses; CER, pers. comm.];</p> <p>(c) an unintended fire or explosion;</p> <p>(d) an unintended or uncontained release of Low Vapour Pressure hydrocarbons in excess of 1.5 m³;</p> <p>(e) an unintended or uncontrolled release of gas or High Vapour Pressure hydrocarbons;</p> <p>(f) the operation of a pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board.</p> <p>Additional guidance on (a), (b), (c), (e) and (f) (see sec. 5).</p>	<p>1. For immediately reportable events, i.e.:</p> <ul style="list-style-type: none"> • An Incident that Harms People or the Environment: <ul style="list-style-type: none"> - a death; - a serious injury (as defined in the OPR or TSB regulations); - an unintended or uncontrolled LVP hydrocarbon release >1.5 m³ that leaves company property or occurs on or off the right of way; - an unintended or uncontrolled sweet natural gas or HVP release >30,000 m³; - any unintended or uncontrolled release of sour natural gas or hydrogen sulfide; and/or - a significant adverse effect on the environment. • A Rupture: <ul style="list-style-type: none"> - an instantaneous release that immediately impacts the operation of a pipeline segment such that the pressure of the segment cannot be maintained. • A Toxic Plume: <ul style="list-style-type: none"> - a band of service fluid or other contaminant (e.g. hydrogen sulfide or smoke) resulting from an incident that causes people, including employees, to take protective measures (e.g. muster, shelter-in-place or evacuation). <p>→ call TSB reporting hotline at (819) 997-7887 within 3 hours. → report the event through the CER web-based Online Event Reporting System also within 3 hours (see link below).</p> <p>2. For all other events:</p> <p>→ report the event through the CER web-based Online Event Reporting System as soon as possible and no later than twenty-four hours after the event was discovered (see link below).</p> <p>Link to CER Online Event Reporting System (OERS): https://apps.cer-rec.gc.ca/ers</p>	<p>The CER shares responsibility with the TSB for incident investigation. The CER investigates pipeline incidents to determine whether its regulations have been followed and if those regulations may need to be changed. The TSB investigates the cause and contributing factors. The CER also monitors excavation activity by third parties near pipelines to ensure compliance with existing regulations.</p> <p>The <i>NEB Event Reporting Guidelines</i> were revised in Dec 2017 (effective 1 April 2018) to provide greater clarity regarding expectations and requirements with respect to event reporting. The Guidelines as revised do not change the single-window reporting agreement with the TSB. See link below.</p> <p>CER Events Reporting Guidelines</p>

APPENDIX E: OVINTIV EH&S RISK MATRIX



Encana EH&S Risk Matrix



Step 1 – Impact Evaluation (Plan)

Level	People	Environment	Assets	Reputation	Financial & Business
4 Critical	<ul style="list-style-type: none"> Fatality Long-term health impact Permanent disability Life altering injury or illness Evacuation of a facility and community Action from landowner/activist involving weapons 	<ul style="list-style-type: none"> Severe long-term environmental damage Wide-spread impacts to sensitive environments, wildlife and/or major bodies of water Significant off lease/site groundwater impacts 	<ul style="list-style-type: none"> One month facility/ equipment outage Production, equipment, property, motor vehicle loss and or damage greater than \$10 million Terrorist attack/attempt 	<ul style="list-style-type: none"> Action resulting in regulatory and/or legal prosecution or suspension of operations Prolonged national/ international media attention Sustained widespread stakeholder public protest 	<ul style="list-style-type: none"> Impact > 20% of Project/Team Budget Significant effect on Division or Corporate group deliverables
3 Serious	<ul style="list-style-type: none"> Short term health impact Lost time injury or illness Evacuation of facility and immediate area Violent action from landowner/activist 	<ul style="list-style-type: none"> Severe short-term environmental damage Localized on lease groundwater impacts Significant off lease/site surface impacts 	<ul style="list-style-type: none"> One week facility/ equipment outage Production, equipment, property, motor vehicle loss and or damage greater than \$1 million Substantial loss from theft/vandalism 	<ul style="list-style-type: none"> Regulatory and/or legal action resulting in fines or punitive action Prolonged national/regional media attention Prolonged local/regional stakeholder public protest 	<ul style="list-style-type: none"> Impact 10% - 20% of Project/Team Budget Significant effect on Business Unit or SBU deliverables
2 Moderate	<ul style="list-style-type: none"> Medical aid injury or illness Restricted work /modified duties Evacuation of job site Specific threat from landowner/activist 	<ul style="list-style-type: none"> Moderate environmental damage No groundwater impacts Localized off lease/site surface impacts Immediate clean up 	<ul style="list-style-type: none"> Short term (less than one week) facility/ equipment outage Production, equipment, property, motor vehicle loss and or damage greater than \$100,000 Major Property crime 	<ul style="list-style-type: none"> Regulatory and/or legal action resulting in administrative response Brief local/regional media attention Brief local public protest 	<ul style="list-style-type: none"> Impact 5% - 9% of Project/Team Budget Significant effect on SBU or Team deliverables
1 Minor	<ul style="list-style-type: none"> First Aid injury or illness Implied threat from landowner/activist 	<ul style="list-style-type: none"> Minor environmental damage Localized on lease/site surface impacts 	<ul style="list-style-type: none"> Negligible production loss Production, equipment, property, motor vehicle loss and/or damage less than \$100,000 Minor property crime 	<ul style="list-style-type: none"> No regulatory action anticipated Brief or no media attention Brief or no public attention 	<ul style="list-style-type: none"> Impact <5% of Project/Team Budget Noticeable effect on SBU or Team deliverables

Step 2 – Probability Estimation

Level	Description	Likelihood
D – Frequent	Event is expected to occur in most circumstances.	One or more occurrences per year
C – Likely	Event will probably occur at some time based on current practices	One occurrence every 1 – 5 years
B – Unlikely	Event should occur at some time based on current practices	One occurrence every 5 - 20 years
A – Remote	Event could occur at some time based on current practices.	Once in the life of the facility

Step 3 – Determine Risk Level (Do)

Impact	4 Critical				
	3 Serious				
	2 Moderate				
	1 Minor				
		A Remote	B Unlikely	C Likely	D Frequent

Probability

Impact X Probability = Risk Level

Step 4 – Risk Level (Check)

Extreme – STOP activities. Work cannot proceed until risk is reduced to a lower level.

High – Extensive risk controls/mitigation measures must be implemented and BU VP approval is required to allow work to proceed. Efforts to reduce risk to a MEDIUM or LOW level should be undertaken.

Medium – Risk controls/mitigation measures must be implemented to allow work to proceed. Efforts to reduce risk to a LOW level should be undertaken.

Low – Some risk controls/mitigation measures may be justified. Represents an acceptable level of risk.

Step 5 – Take Action (Act)

Ensure all Risks are understood, controlled and communicated prior to starting work.

The matrix and tables may not precisely describe all situations. Professional judgement using the approach outlined in this tool must always be applied in assessing risk within Encana tolerances as defined by the Corporate Risk Management Policy.



RISK ASSESSMENT WORKSHEET

(To be used in conjunction with the EnCana EH&S Risk Matrix)

Risk Category: What are our business objectives?

Date:

Scope of the Assessment What are we addressing? (i.e. Project, BU level, Department level, etc.)

Participants: Do we have the necessary expertise present?

Period of Examination: List the time span of the risk assessment (i.e. annual, specific period etc). This has significant implications for consistent probability ratings.

Identify Risk Scenario	Impact Rating	Impact Reasoning	Probability Rating	Probability Reasoning	Current Mitigations and Controls	Risk Level	Risk Treatment Strategy And Mitigation Plan	Residual Risk
<i>What could stop us from achieving our objectives? What can go wrong?</i>	<i>What impact does it have on what EnCana values? NOTE: Consider each impact category separately!</i>	<i>What are the specific reasons and results of the impact of the risk scenario?</i>	<i>What is the chance of it happening considering the current standards, work practices and business environment?</i>	<i>What are the specific reasons for the probability of the scenario?</i>	<i>What measures are currently in place?</i>	<i>What is the current level of risk given the existing practices? (Use EnCana EH&S Risk Matrix.)</i>	<i>If the risk is deemed to be unacceptable what can be done about it?</i>	<i>What level of risk is left over and / or has the treatment strategy or mitigation plan introduced new risk(s)?</i>

March 14, 2007

APPENDIX F: TIME / EVENT LOG FORM

Page ____ of ____



EMERGENCY RESPONSE TEAM – TIME / EVENT LOG

Name: _____

Emergency Management Team

Role: _____

Date / Time	Event / Message / Details / Action Taken

APPENDIX G: OVINTIV EMERGENCY MANAGEMENT TEAM ROLE DESCRIPTIONS AND ACTION ITEMS

Ovintiv's Core Emergency Management Team

- Emergency Manager
- EHS&Q Lead
- Emergency Operations Advisor
- Media Response Lead (Corporate)

Ovintiv's Expanded Core Emergency Management Team

- Onboard Representative (part of On-Scene Incident Command Team)
- Commercial/Contracts Lead
- Logistics Lead
- Personnel on Board Coordinator
- Relative Response Lead
- Event Logger
- Reception/Internal Security

Emergency Manager (Ovintiv Halifax Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> On-call Emergency Manager leads the Halifax Emergency Management Team in support of the On-Scene Incident Commander, as well as effectively provides support and manages the consequences of the emergency. Full authority to mobilize and direct resources and personnel to support the On-Scene Incident Commander and minimize real or potential loss or damage to Ovintiv. Provide advice and support to Incident Command Team via the Contractor Emergency Manager Communicates and updates the Corporate Management Team periodically. Assess current and potential risk to Company (confirm and or determine Level of Emergency) Coordinate Emergency Management Team staff and resources 	<ul style="list-style-type: none"> Contractor Emergency Manager Corporate Executive Rep / Corporate Management Team Emergency Management Team Other advisors / specialists and ensure communication with CNSOPB, Joint Rescue Coordination Centre, Transport Canada, Transportation Safety Board and Canada Energy Regulator at an Operational/ Technical level (may delegate to EHS&Q Lead)
Initial Actions	
<ul style="list-style-type: none"> All Emergency Managers have log-in access to the Personal Logistics System (PLS) trip history and personnel on board data. Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) Decide to activate the Emergency Operations Centre in whole or in part. Assume role of managing and directing the Ovintiv Emergency Management Team in the Emergency Operations Centre. Verify response room readiness / members / contacts of Emergency Management Team. Clarify / verify information with the Contractor Emergency Manager/ Incident Commander (delegate to Emergency Operations Advisor) Verify that a point of contact has been established with CNSOPB and Joint Rescue Coordination Centre Halifax (delegate to EHS&Q Lead). Contact Ovintiv leadership as follows: <ul style="list-style-type: none"> Level 1: Deep Panuke (DP) Senior Mgr Level 2: DP Senior Mgr; if not available, contact Chief, Prodn Ops & DP Level 3: DP Snr Mgr who will contact Chief, Prodn Ops & DP who will in turn contact EVP & Chief Operating Officer. If DP Snr Mgr not available contact Chief, Prodn Ops & DP; if not available contact EVP & COO. 	
Support	
<ul style="list-style-type: none"> Keep Corporate Executive Representative informed of the emergency and status of response measures Hold regular briefings with other leads and advisors to establish most current situation. Solicit immediate evaluations from each of the leads and Advisors regarding: <ul style="list-style-type: none"> Risk / potential impacts to Ovintiv (short and long term exposures) Required Corporate involvement / additional functions and resources needed or as requested by Emergency Management Team Maintain ongoing communications with the Incident Command Team via the Emergency Operations Advisor, ensuring the appropriate level of support is provided. Establish goals & objectives at early stages of the response. Identify risks to personnel, equipment, facilities and determine mitigation measures/responses to address risks. Delegate responsibilities for completion of tasks. Develop a 12-hour action plan, including provisions for relieving and rotating personnel. Regularly update leads and advisors to clarify status and continually address strategic issues. Determine the representatives who are required to participate in / travel to site and/or government (federal, provincial or municipal), if appropriate. Identify and mobilize support required - Level of emergency and what Corporate support functions have been or require activation – i.e.: Communications, Int'l / Government Relations, Health and Wellness/Human Resources - EAP, Business Continuity. Review all proposed media releases for technical accuracy. Ensure Regulators (CNSOPB, Canada Energy Regulator, Transport Canada, Royal Canadian Mounted Police, NSE) have been notified appropriately at an operational / technical level (can be delegated to EHS&Q Lead) Maintain an accurate and current personal log of events. If the emergency continues, arrange back up for the Emergency Management Team via the Corporate Management Team 	
Post-Emergency	

- In consultation with appropriate regulators and the Corporate Management Team, stand down the team at the appropriate time.
- Direct demobilization and post-emergency activities.
- Ensure critical post-emergency services are provided for employees, first responders, families, members of the public and next-of-kin.
- Ensure personal log of events is transmitted to the EHS&Q Lead for follow-up reporting and documentation
- Ensure the EHS&Q Lead implements the Oviniv Incident Reporting and Investigation procedures.
- Refer to Post-Emergency Procedures for details.

Emergency Operations Advisor (Ovintiv Halifax Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> Serves as “second-in-command” supporting the Emergency Manager by providing technical insight into the emergency and the appropriate response actions, as well as functioning as the primary communications link to the affected on-scene response team and Contractors, after the initial contact. Reports to Emergency Manager Participate in the initial risk assessment (determine Level of Emergency) Provide advice pertaining to the technical issues relative to the emergency Provide input to the decisions made and strategies recommended by the team Liaise with emergency response logistics coordinator to provide support in personnel/resources mobilization, as required 	<ul style="list-style-type: none"> Emergency Manager Emergency Management Team Leads and other Advisors Contractors Emergency Management Team Emergency response logistics coordinator Helicopter Base, Supply Base, Joint Rescue Coordination Centre Halifax, Weather forecasts, as required
Initial Actions	
<ul style="list-style-type: none"> As directed, proceed to the designated Emergency Operations Centre. Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) If necessary, act as Emergency Manager until relieved. Identify and provide support as required by Emergency Manager. Confirm (or activate if required) necessary logistic support for the emergency. Provide the Emergency Manager with your immediate evaluation regarding: <ul style="list-style-type: none"> Risk / potential impacts to Ovintiv (short and long term exposures) Required Corporate involvement / additional Team functions and resources needed 	
Support	
<ul style="list-style-type: none"> Maintain communications with the Contractor Emergency Manager or Onboard Representative, as required. Discuss with Ovintiv Emergency Management Team the initial response actions expected from Contractor Incident Command Team and confirm planned program. Maintain ongoing communications with the Incident Command Team and reports back to the Emergency Manager, as appropriate. Support the risk assessment / priority setting process. Confirm operational status of affected site / vessels / installations / facilities. Verify the need for precautionary down-manning / evacuation Continue to keep Emergency Management Team informed of the situation. Participate in the Emergency Manager’s status update meetings regarding: current status / completed tasks / go forward priorities / additional staff requirements. Assemble technical expertise as needed, begin formulating control options and identify necessary emergency personnel/equipment resources. Assess the potential requirement for engineering support, confirm resources and mobilize as needed. Confirm, and mobilize if required, required logistical resources to support the response. Maintain an accurate and current personal log of events. 	
Post-Emergency	
<ul style="list-style-type: none"> Assist with the demobilization and post-emergency activities as determined by the emergency management team, as required. Ensure personal log of events is transmitted to the EHS&Q Lead for follow-up reporting and documentation. Refer to Post-Emergency Procedures for details. 	

EHSQ Lead (Ovintiv Halifax Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> • Provides advice and engages appropriate staff to provide support on health, safety and environmental issues to the Emergency Management Team. • Reports to Emergency Manager • Provides support in identifying potential risks, and monitoring safety and environmental performance objectives. • The EHS&Q Lead will also provide regulatory agency advice to the Emergency Manager, including reporting responsibilities. • Liaise with regulatory agencies, health providers (hospitals / doctors), contractors EHS leads, as directed by Emergency Manager • Support or provide Workers' Compensation Board notification, as required • Advise on EHSQ issues relevant to the emergency (including risk assessment). 	<ul style="list-style-type: none"> • Emergency Manager • Emergency Management Team • EHS Field Staff • EHS related agencies (hospitals, Royal Canadian Mounted Police, Workers' Compensation Board,) CNSOPB, Transportation Safety Board/Canada Energy Regulator, Canadian Coast Guard, EC, NSE, as required (operational / technical level, as requested by the Emergency Manager)
Initial Actions	
<ul style="list-style-type: none"> • As directed, proceed to the designated Emergency Operations Centre. • Capture all dialog and actions in the Time/Event Log (see Appendix F for reference). • Receive briefing from Emergency Manager. • Assist, participate and, as required, facilitate ongoing regular EHS risk assessment. • Ensure appropriate notifications and updates are provided to outside agencies as required. 	
Support	
<ul style="list-style-type: none"> • Provide information relating to hazardous materials exposure, safety or treatment, as required. • As requested, implement regulatory agency notification requirements (e.g. CNSOPB, Canadian Coast Guard, Transportation Safety Board, Canada Energy Regulator, Royal Canadian Mounted Police, NSE) • Ongoing liaison with medical personnel and hospitals and Contractor EHS&Q lead, as required. • Verify that the Royal Canadian Mounted Police has been notified in the event of a fatality or suspected fatality. • Obtain names / agencies of regulatory agency personnel contacted and/or onsite for possible follow-up discussions. • Liaise with other safety specialists as necessary (i.e. diving safety specialist). • In the event of a spill, ensure the Spill Response Plan is being implemented. • Provide support to those responsible for next-of-kin notifications (coordinate with Relative Response Team). • Confer that Workers' Compensation Board has been or will be notified within 72 hours of incident, as required. Confirm reports are completed, reviewed and submitted. • Recommend course of action / develop EHS plan for supporting the emergency. • Based on the emergency and potential implications mobilize additional EHS support personnel, as required (Safety / Environmental / Health) and implement EHS emergency support plan. • Maintain an accurate and current personal log of events. 	
Post-Emergency	
<ul style="list-style-type: none"> • Follow-up with regulatory agency and other contacted agencies as required. • Assist with the demobilization and post-emergency activities as determined by the Emergency Management Team. • Assemble all Emergency Management Team members' logs for use in the incident reporting and investigation procedure. • Provide Ovintiv representation on the incident investigation team • Ensure Incident Reporting and Investigation Procedure is implemented. • Refer to Post-Emergency Procedures for details. 	

Media Response Team (Ovintiv Halifax Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> • Implement the Deep Panuke Emergency Communications Plan. • Report to Emergency Manager. • Participate in the initial Corporate risk assessment. • Co-ordinate strategic response actions to effectively manage media issues, general public inquires, and employee communications - activate Communications Plan. • Be prepared to act as Media Spokesperson, until assigned. • Mobilize and co-ordinate the activities of additional Communications support staff, as required. 	<ul style="list-style-type: none"> • Emergency Manager • Media Spokesperson(s) – Calgary and/or Site Security, switchboard, appropriate building reception(s)
Initial Actions	
<ul style="list-style-type: none"> • As directed, proceed to the appropriate Emergency Operations Centre • Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) • Identify and provide support as required by Emergency Manager. • Participate in Corporate risk assessment / identification of potential consequences. • Provide your immediate evaluation regarding: • Risk/potential impacts to Ovintiv (short and long term exposures), required Corporate involvement / additional team resources needed, recommended course of action. • Determine and clarify details of any media or public contact made to this point and implement communications plan for all stakeholders, including employees. • Fulfill role as Media Spokesperson and determine role assignment, as required. 	
Support	
<ul style="list-style-type: none"> • Based on the emergency and potential implications, make the decision to activate Emergency Communications Plan and mobilize additional communication functions, as required, leading the Communications Section: <ol style="list-style-type: none"> 1. - Media Response Lead 2. - Ovintiv Communications and Media Relations Emergency Management Team Rep in Calgary • Ensure that Halifax Switchboards and Designated Receptionist know where to direct incoming calls. • Decide whether dedicated media response line should be activated. • Continue to lead the communications section and ensure link between the spokesperson and/or advisor(s) in Calgary and field-based / local spokesperson and/or advisor(s) is maintained. • Ensure clear lines of communications between groups – media, public / community, government, employee, and investor relations. • Ensure all releases are reviewed and approved by Legal Advisor, Executive Lead(s), and Emergency Manager. • Participate in the status update briefings regarding completed tasks/issues, priorities, resource and staff requirements. • If the emergency continues, arrange for back-up for your role on the team and within the base business. • Maintain an accurate and current personal log of events. 	
Post-Emergency	
<ul style="list-style-type: none"> • Prepare and send out a closing Briefing Note regarding the emergency. • Assist with the demobilization and post-emergency activities as determined by the team, as required. • Ensure personal log of events is transmitted to the EHS&Q Lead for follow-up reporting and documentation. • Refer to Post-Emergency Procedures for details. 	

Ovintiv Onboard Representative (On-Scene Incident Command Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> • Support the Offshore Installation Manager/Captain by providing technical insight into the emergency and the appropriate response actions, as well as functioning as the primary communications link to the Ovintiv Emergency Manager, after the initial contact. • Reports to the Offshore Installation Manager/Captain • Participate in the initial risk assessment (determine Level of Emergency) • Provide advice pertaining to the technical issues relative to the emergency • Provide input to the decisions made and strategies recommended by the offshore team 	<ul style="list-style-type: none"> • Offshore Installation Manager/Captain • Ovintiv Emergency Manager • Ovintiv Emergency Management Team
Initial Actions	
<ul style="list-style-type: none"> • As directed, proceed to the designated command center. • Participate as a member of the On-Scene Incident Command Team • Monitor all dialog and actions in the Time/Event Log (Appendix F). • Identify and provide support as required by the Offshore Installation Manager/Captain. • Provide the Offshore Installation Manager/Captain with your immediate evaluation regarding: <ul style="list-style-type: none"> ○ Risk / potential impacts (short and long term exposures) ○ Required Ovintiv involvement 	
Support	
<ul style="list-style-type: none"> • Maintain communications with the Ovintiv Emergency Manager as required. • Discuss with Ovintiv Emergency Management Team the initial response actions expected from Contractor Incident Command Team and confirm planned program. • Support the risk assessment / priority setting process. • Confirm operational status of affected site / vessels / installations / facilities. • Verify the need for precautionary down-manning / evacuation • Continue to keep Ovintiv Emergency Management Team informed of the situation. • Participate in the Offshore Installation Manager/Captain's status update meetings regarding: current status / completed tasks / go forward priorities / additional staff requirements. • Assess the potential requirement for Ovintiv technical and operational support, confirm resources and mobilize as directed by Offshore Installation Manager/Captain. • Maintain an accurate and current personal log of events. 	
Post-Emergency	
<ul style="list-style-type: none"> • Assist with the demobilization and post-emergency activities as determined by the Offshore Installation Manager/Captain. • Ensure personal log of events is transmitted to the Ovintiv EHS&Q Lead for follow-up reporting and documentation. • Refer to Post-Emergency Procedures for details. 	

Commercial/Contracts Lead (Halifax Expanded Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> • Reports to Emergency Manager • Co-ordinates and supervises representatives of business functions such as law, insurance, accounting / treasury, etc. 	<ul style="list-style-type: none"> • Emergency Manager • Emergency Management Team • Emergency Operations Advisor • Calgary Corporate Management Team • Representatives of various financial business functions (ie: law, insurance, accounting, treasury)
Initial Actions	
<ul style="list-style-type: none"> • Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) • As directed, proceed to the designated Emergency Operations Centre • Identify current and potential financial / business support requirements. 	
Support	
<ul style="list-style-type: none"> • Mobilize, brief, and supervise additional business support staff as required – i.e.: law, insurance, accounting, treasury • Ensure that activation of the Finance / Business section is adequate to support the response • Track resources required / ordered. • Clarify and assign tasks to supporting staff and ensure they provide you with: <ol style="list-style-type: none"> 1. Estimated time to complete the required task 2. Where they need to be to complete the task 3. How often and the method that they intend to use to notify you of progress or obstacles • Ensure funding for emergency response activities is in place and that complete accounting records are prepared and collected. • Participate in planning meetings to ensure understanding of overall strategy and to provide input on financial and cost analysis matters. • Evaluate situation and in consultation with the Executive Support Group, determine legal concerns and general counsel support requirements. • Determine facts, status, risks / potential impacts: <ol style="list-style-type: none"> 1. Incident time / location – company worksite, jurisdiction, land use, environmental sensitivities, etc. 2. Incident details – prime contractor, who was directing work, substance released, details on cause 3. Incident response – who is in charge, who is directing work, regulatory agency notification, response strategy, controversy internally or from external sources 4. Incident investigation – investigation process, should it be privileged, government investigation, who had control of pollutant prior to discharge, who owns pollutant, have charges been laid or contemplated, liability 5. Determine legal reporting requirements. 6. What contractual arrangements are in place – i.e.: security, accommodations, lease of land; products/sales agreements; mutual aid agreements; transportation/charter party agreements. 7. Determine if additional contracts are required. • Protect company from unnecessary admissions (i.e.: liability) and disclosures against company interest by reviewing press releases and reports to employees, using solicitor-client privilege for investigations and legal advice. • Attend press / media briefings. • If the emergency continues, arrange for backups for your role on the team and within the base business, as required. • Maintain an accurate and current personal log of events. 	
Post-Emergency	
<ul style="list-style-type: none"> • Assist with the demobilization and post-emergency activities as determined by the team, as required. • Ensure personal log of events is transmitted to the EHS&Q Lead for follow-up reporting and documentation. • Refer to Post-Emergency Procedures for details. 	

Event Logger (Halifax Expanded Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> Retains a record of the key activities and timelines related to the emergency (including notifications and responses), as well as supports the Emergency Management Team in other ways as directed by the Emergency Manager. Provides support in documentation, tracking and displaying emergency status information on the status boards in the Emergency Operations Centre. Reports to Emergency Manager Set-up Emergency Operations Centres when Emergency Management Team is mobilized. 	<ul style="list-style-type: none"> Emergency Manager Emergency Management Team
Initial Actions	
<ul style="list-style-type: none"> As directed, go to the designated Emergency Operations Centre. Ensure proper set-up of Emergency Operations Centres (i.e. Information status boards) Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) Receive briefing from Emergency Manager. Commence recording of actions, notifications and initial incident details. 	
Support	
<ul style="list-style-type: none"> Maintain a formal record and timeline of the notifications, events and responses to the emergency. Ensure key activity details are captured and recorded. Maintain pertinent information on status/white boards in the Emergency Operations Centres. Encourage Emergency Management Team members to maintain their personal logs. Track and remind the Emergency Manager and Emergency Operations Advisor when regular updates from the scene are due/expected (i.e., each 15 minutes or as established by the Emergency Manager as the situation develops). 	
Post-Emergency	
<ul style="list-style-type: none"> Assist with the demobilization and post-emergency activities as determined by the team, as required. Ensure personal log of events is transmitted to the EHS&Q Lead for follow-up reporting and documentation. Refer to Post-Emergency Procedures for details. 	

Relative Response Team (Halifax Expanded Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> • Implement the “Ovintiv Relative Response Guide” (Doc No. EC98-1S-0067) • Reports to Emergency Manager • Coordinate the communications to Next Of Kin as determined by the nature of the emergency (Ovintiv Staff only) • Confirm Next of Kin notification of contractor staff via contractor Relative Response Team 	<ul style="list-style-type: none"> • Emergency Manager • Next Of Kin • Emergency Management Team • Logistics Lead • Event Logger • Royal Canadian Mounted Police (coordinated with EHS&Q Lead)
Initial Actions	
<ul style="list-style-type: none"> • Determine latest Ovintiv personnel on board status from “PLS” online system • Capture initial Ovintiv personnel on board records from affected facilities • Track project Ovintiv personnel on board involved in response efforts • Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) • Identify and provide support as required by Executive Representative. • As directed, go to the appropriate Emergency Operations Centre. 	
Support	
<ul style="list-style-type: none"> • Track missing and unaccounted Ovintiv personnel on board • Track Ovintiv personnel on board transferred from one facility to another • On the direction of the Emergency Manager, initiate the relative response plan. • Determine HR support requirements – confirm the following: <ol style="list-style-type: none"> 1. Serious injury / fatality; company or contract personnel? 2. Employee benefits, compensation? 3. Next-of-kin notification / support? 4. Arrangements for travel / accommodations, meet and greet, ground transport, expenses, counselling for families? 5. Provisions made for involved but uninjured personnel including responders and contact of their families? • Maintain an accurate and current personal log of events. • Coordinate with the EHS&Q Lead for notification of Royal Canadian Mounted Police as required 	
Post-Emergency	
<ul style="list-style-type: none"> • Assist with the demobilization and post-emergency activities as determined by the team, as required. • Ensure personal log of events is transmitted to the EHS&Q Lead for follow-up reporting and documentation. • Refer to Post-Emergency Procedures for details. 	

Reception/Internal Security (Halifax Expanded Core Emergency Management Team)	
Functional Role	Key Communications
<ul style="list-style-type: none"> • Reports to Emergency Manager • Coordinate incoming communications to the appropriate parties • Maintain organization of all messages • Relaying the appropriate information ex: media release holding statement • Organizing the necessary levels of security for Ovintiv Halifax Emergency Operations Centre. • Communicate high priority messages to the EM in a timely manner 	<ul style="list-style-type: none"> • Emergency Manager • Emergency Management Team • Redirect enquiries from outside sources i.e. Next of Kin, Media
Initial Actions	
<ul style="list-style-type: none"> • Capture all dialog and actions in the Time/Event Log (see Appendix F for reference) • Identify and provide support as required to the Emergency Management Team • Immediately go to the reception area at Ovintiv Halifax Office 7th floor 	
Support	
<ul style="list-style-type: none"> • Liaise with the Relative Response Team and Media • Determine what level of security is required through Media Response and Emergency Manger • Support all teams as required • Maintain an accurate and efficient messaging system based on priority levels • Maintain a log of incoming messages 	
Post-Emergency	
<ul style="list-style-type: none"> • Assist with the demobilization and post-emergency activities as determined by the team, as required. • Ensure personal log of messages is relayed to the Emergency Management Team for follow-up. 	

Personal contact information redacted for privacy