



Ministry of
Environment and
Climate Change Strategy

Preparing Spill Contingency Plans

August 2018

Context

This document is intended to assist regulated persons in understanding and complying with Spill Contingency Planning requirements as outlined in the *Environmental Management Act 2003* (EMA) and the Spill Contingency Planning Regulation (SCPR). Regulated persons are pipeline, rail and highway transporters that have possession, charge or control of liquid petroleum products as defined in the Spill Preparedness, Response and Recovery Regulation in the prescribed regulated quantities. All regulated persons must have a Spill Contingency Plan (SCP) that: (1) demonstrates spill preparedness for the liquid petroleum products for which they are regulated and (2) addresses a specified spill quantity based on sector-specific criteria. SCPs must be updated, reviewed, and tested in accordance with the regulations. Information on the requirements of testing SCPs is outlined in the *Testing Spill Contingency Plans* guidance document, which is being finalized and will be available on the Environmental Emergency Program (EEP) website in 2018.

Division 2.1 Spill Preparedness, Response and Recovery of EMA came into force on October 30, 2017. Section 91.11 of EMA focuses on spill preparedness and the requirement for regulated persons to prepare and maintain a SCP. The development of SCPs is a proactive requirement placed on regulated persons to demonstrate their capability to respond to a spill of a specified quantity of a prescribed liquid petroleum product. Section 91.11 (4) of EMA states that a SCP must be implemented to the extent that the SCP is applicable; any response actions that deviate from the SCP must show that due diligence was taken, resulting in less harm than if the content of the SCP was followed.

The SCPR prescribes the specified quantity for each sector, the content that must be included in SCPs, how SCPs must be reviewed, updated, and tested, and the types of records that must be maintained. The Spill Preparedness, Response and Recovery Regulation (SPRRR) prescribes that railway and pipeline operators must have a SCP in place prior to April 30, 2018 and that highway transporters must have a SCP in place no later than October 30, 2018.

It is the responsibility of regulated persons, responsible persons, and the owners of transported goods to understand and comply with EMA and the associated regulations. This document is solely for the convenience of the reader and is intended to assist in understanding the legislation and regulations, not replace them. It does not contain and should not be construed as legal advice. Failure to be in compliance with EMA and/or the regulations can result in fines and convictions.

Neither EMA nor the SCPR require SCPs to be submitted to the Ministry of Environment & Climate Change Strategy (the ministry) for approval by a director. SCPs must, however, be tested in accordance with the requirements outlined in EMA and the SCPR and may be subject to auditing.

Acronyms

APR	Air purifying respirator
B.C.	British Columbia
EEP	Environmental Emergency Program
EMA	<i>Environmental Management Act 2003</i>
EMBC	Emergency Management British Columbia
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IDLH	Immediately Dangerous to Life and Health
NIOSH	National Institute for Occupational Safety and Health
OGAA	<i>Oil and Gas Activities Act 2009</i>
OGC	Oil and Gas Commission
OHSR	Occupational Health and Safety Regulation
PPE	Personal protective equipment
SCBA	Self-Contained Breathing Apparatus
SCP	Spill Contingency Plan
SCPR	Spill Contingency Planning Regulation
SDS	Safety Data Sheet
SPRRR	Spill Preparedness, Response and Recovery Regulation
SRPZ	Spill Response Planning Zone
STEL	Short Term Exposure Limits
TWA	Time Weighted Averages
WHIMIS	Workplace Hazardous Materials Information System

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1. Introduction

All regulated persons must have a SCP that demonstrates preparedness for a spill of the liquid petroleum products for which they are regulated and addresses the sector specified spill quantity (worst-case scenario spill volume). Having a SCP in place can improve response times and minimize impacts. SCPs must demonstrate that resources, equipment, and procedures are in place to address a worst-case scenario spill with special consideration for areas that are environmentally sensitive along transportation routes that are regularly travelled. The guidance provided in this document is intended to assist regulated persons in understanding and complying with the Spill Contingency Planning requirements outlined in EMA and the SCPR.

SCPs must be reviewed, updated, and tested in accordance with the SCPR. Additional information on testing SCPs is available in the [Testing Spill Contingency Plans fact sheet and guidance document](#) located on the British Columbia (B.C.) Provincial Government Environmental Emergency Program website. Please note that the *Testing Spill Contingency Plans* guidance document is being finalized and will be available on the Environmental Emergency Program website in 2018.

All regulated persons must have a SCP in place by:

- April 30, 2018 for pipeline and railway sectors; and
- October 30, 2018 for the highway transport sector.

2. Definitions

Body of water – includes:

- a stream, as defined in the *Water Sustainability Act 2014*;
- an aquifer, as defined in the *Water Sustainability Act 2014*;
- fish habitat, as defined in the *Water Sustainability Regulation*; and
- any of the following that could drain or empty directly into a body of water:
 - a naturally formed pool of water other than one referred to in the points above; and
 - a ditch.

Environment – as defined in EMA includes air, land, water, and all other external conditions or influences under which humans, animals, and plants live or are developed. This includes:

- flora and fauna; and
- for certainty, animal, fish, and plant habitat.

Facility – as defined in the *Hazardous Waste Regulation*, includes any spaces that are designed to or do handle, store, treat, destroy, or dispose of hazardous waste and includes recycling facilities, storage facilities, treatment facilities, incinerators, thermal treatment facilities, mobile facilities, secure landfills, piles, surface impoundments, land treatment facilities, and secure buildings.

Hazardous waste – as defined in the Hazardous Waste Regulation.

Heritage object – as defined in the *Heritage Conservation Act 1979* is, whether designated or not, personal property that has heritage value to B.C., a community, or an Indigenous community.

Heritage site – as defined in the *Heritage Conservation Act 1979* includes, whether designated or not, land or land covered by water that has heritage value to B.C., a community, or an Indigenous community.

Highway – as defined in the *Transportation Act 2004*, includes all public streets, roads, ways, trails, lanes, bridges, trestles, ferry landings, approaches, and any other public way.

Incident Command Post (ICP) – is a stationary location at or near the incident site from which the incident commander and command staff direct and oversee emergency response operations.

Incident Command System (ICS) – a standardized on site management system designed to enable effective and efficient incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.

Infrastructure – includes buildings, bridges, drinking water intakes, utility conduits, and wastewater treatment plants.

Petroleum development road – as defined in the Petroleum Development Road Regulation, includes roads constructed over Crown lands reserved for the construction and operation of a road, or operation of a road to facilitate exploration for, and the winning, extraction, and removal of petroleum and natural gas products and includes any extensions of such a road over land other than Crown land provided for in the application or subsequently authorized by the Oil and Gas Commission (OGC).

Personal Protective Equipment (PPE) – equipment or clothing such as hard hats, safety boots, gloves, safety glasses, lifejackets, fall protection, earplugs, and respirators worn by response personnel to protect them from workplace hazards.

Regularly traveled routes – transportation routes that are utilized by regulated persons on a frequent or preplanned basis.

Resource road – resource roads are typically one or two lane gravel roads built for industrial purposes to access natural resources in remote areas. Resource roads are constructed to develop, protect, and access B.C.'s natural resources. They are used primarily by industrial vehicles engaged in forestry, mining, oil and gas, or agriculture operations. In addition to resource industries, resource roads are used by the general public and commercial operators for access to places such as ski hills or fishing lodges.

Spill response planning zone – refers to a geographic area of concern following a spill either along a length of pipeline, railway, or highway for which the regulated person must plan for the spill response activities.

Storage – as defined in the Hazardous Waste Regulation, the storage of hazardous waste with the intention to move the hazardous waste for subsequent management.

Waste – as defined in EMA and includes air contaminants, litter, effluent, refuse, biomedical waste, and hazardous waste.

Works – as defined in EMA, includes a device, equipment, land, or a structure that is used to measure, handle, transport, treat, or destroy waste.

Worst-case scenario – a spill of a regulated substance in a quantity equal to or greater than the specified quantity as defined in section 2 of the SCPR.

3. Prior to preparing a Spill Contingency Plan

An effective SCP must demonstrate how regulated persons will mitigate and restore the environment from the impacts of a worst-case scenario spill. As such, prior to developing the SCP, regulated persons must determine the magnitude of the risk to the environment, human health, and infrastructure.

Regulated Person
<p>A regulated person is a person who has possession, charge or control of liquid petroleum products as defined in the Spill Preparedness, Response and Recovery Regulation in the following defined quantities:</p> <ol style="list-style-type: none">1. Any quantity being transported by pipeline2. 10,000 litres or more transported by railway3. 10,000 litres or more being transported by truck <p>Operations regulated by the OGC are exempt from the spill contingency planning requirements as outlined in section 91.11 of EMA. These operations are governed by a comprehensive emergency preparedness and response system under the <i>Oil and Gas Activities Act 2009</i> (OGAA).</p>

Section 91.11 (2) of EMA outlines the activities that must be conducted prior to preparing a SCP:

- (2) Before a spill contingency plan is prepared in relation to a regulated person, the regulated person must ensure that investigations, tests and surveys are undertaken in accordance with the regulations, if any, that are necessary to determine the magnitude of the risk to
- (a) the environment and human health, and
 - (b) infrastructure
- that would result from a spill of the substance in respect of which the person is a regulated person.

To fully satisfy this requirement, regulated persons must ensure that they have a comprehensive understanding of the magnitude of risk to human health, the environment, and infrastructure should a worst-case scenario spill occur. This can be achieved by fully complying with the SCPR, in particular, by performing the investigations, tests, reports, and/or surveys as described in Table 1. All records respecting the investigations, tests, reports and/or surveys listed in Table 1 must be kept for the period that they are valid as outlined in section 8 of the SPRRR. Further guidance on the items listed in Table 1 can be found in their respective sections within this guidance document.

Table 1: Investigations, tests, reports, and/or surveys used to determine magnitude of risk

Investigation, test, report, and/or survey	Section of the SCPR
Hazard assessment – Magnitude of risk to the environment, human health, and infrastructure	Section 4 (1) (c) and 4 (2)
Wildlife – Potential adverse impacts to wildlife	Section 11 (1)
Spill response procedures – Procedures for initial assessment of the spill; identifying and evaluating the immediate risks, classifying the spill, and assessing public and responder safety	Section 12 (2) Section 12 (4) (g) (ii)

4. Worst-case scenario spill

The worst-case scenario spill (referred to as specified quantity as per section 2 of the SCPR); this spill volume must be used when preparing SCPs. Information on what constitutes a worst-case scenario spill for each sector is described in section 2 of the SCPR:

(1) The specified quantity in relation to the transportation of a regulated substance is the following, as applicable:

- (a) in the case of transportation through a pipeline, the greatest of
 - (i) the quantity of the largest historical spill from the pipeline,
 - (ii) the volume of the largest battery of breakout tank, or battery of breakout tanks, without a secondary containment system, and
 - (iii) the quantity calculated in accordance with subsection (2);
- (b) in the case of transportation by railway, the greater of
 - (i) the maximum quantity that could be transported by a single rail car operated by the regulated person, and
 - (ii) 20% of the maximum quantity that could be transported by a train operated by the regulated person;
- (c) in the case of transportation on a highway, the maximum quantity that could be transported by a single motor vehicle, including trailers, if any, attached to the motor vehicle operated by the regulated person.

(2) For the purpose of subsection (1) (a) (iii), the quantity is to be calculated as follows:

$$\text{quantity} = (\text{detection time} + \text{shutdown time}) \times \text{flow rate} + \text{line drainage}$$

where

$$\text{detection time} = \text{the maximum time that is likely to be required to detect an unintentional release from the pipeline;}$$

shutdown time	=	the maximum time that is likely to be required to shut down the pipeline;
flow rate	=	the maximum flow rate of the pipeline;
line drainage	=	the maximum quantity that could be contained by the pipeline between any 2 shutoff valves.

For example, if a train has ten cars with the maximum crude oil transporting capacity of 1,150,000 litres, the specified quantity that must be considered as the volume of spilled oil in worst-case scenario planning is 230,000 litres (1,150,000 x 0.20 = 230,000). Note that the worst-case scenario planning for this train is always based on 230,000 liters of oil, even if it carries less than that amount at times. As a result, emergency response personnel are consistently prepared for 20% of maximum capacity spill.

Once the specified volume has been calculated, the regulated person must state the volume explicitly in the hazard assessment section of their SCP and note that the assessment of the magnitude of the risk is based on that figure.

5. Availability of the Spill Contingency Plan to employees

Section 17 of the SCPR (see below) requires that highway transporters carry specific sections of the SCP in each motor vehicle used for transporting the substances for which they are regulated. This ensures that operators and first responders can initiate the first steps of the SCP following a spill incident. A copy of the signed declaration must be clearly attached to the SCP and the SCP should be stored in the driver's side door of the cab.

For the purposes of section 91.11 (1) (c) [*regulated persons – spill contingency planning*] of the Act, a regulated person who is a highway transporter and has a spill contingency plan must ensure that each motor vehicle used by the regulated person to transport the regulated substance contains a copy of the parts of the plan that address

- (a) the procedures referred to in section 12 (2) [*initial assessment*],
- (b) the procedures referred to in section 12 (3) [*notification*], and
- (c) the procedures referred to in section 12 (4) [*spill response actions*] in which a driver might be involved.

6. Contents of the Spill Contingency Plan

Section 3 of the SCPR outlines the content requirements for SCPs; required content for pipeline and railway operations is identical. Highway transporters are not required to meet the same requirements as pipeline and railway operations; the differences are listed in EMA, the SCPR, and in relevant sections of this document. Regulated persons must develop SCPs based on the sector-specific specified quantity as outlined in section 2 of the SCPR. Subsections 6.2 to 6.11 of this guidance document provide direction on how to include the required content of SCPs as outlined in section 3 (c) of the SCPR.

Note: Some regulated persons transport more than one regulated substance, in such cases, if the substances have the same or similar hazard assessments, equipment, required resources, and spill

response procedures they can be addressed in one SCP. See section 4 of the SCPR on hazard assessments for details.

SCPs must contain the information outlined in section 3 of the SCPR:

For the purposes of section 91.11 (1) (a) [*regulated persons – spill contingency planning*] of the Act, a spill contingency plan must address the worst case scenario of a spill of the specified quantity of the regulated substance and must contain all of the following:

- (a) the name and contact information of the regulated person;
- (b) a declaration that the spill contingency plan is true, accurate and complete, signed by any of the following, as applicable:
 - (i) if the regulated person is an individual, the regulated person;
 - (ii) if the regulated person is a corporation, a director or officer of the regulated person;
 - (iii) if the regulated person is a partnership,
 - (A) a partner who is an individual, or
 - (B) a director or officer of a partner that is a corporation;
- (c) the information required by the following sections:
 - (i) section 4 [*hazard assessment*];
 - (ii) section 5 [*spill response planning map*];
 - (iii) section 6 [*equipment, personnel and other resources*];
 - (iv) section 7 [*incident command system*];
 - (v) section 8 [*human health and safety*];
 - (vi) section 9 [*communication procedures*];
 - (vii) section 10 [*waste management*];
 - (viii) section 11 [*wildlife*];
 - (ix) section 12 [*spill response procedures*];
 - (x) section 13 [*training*].

6.1 Declaration

Completing and clearly attaching the declaration template provided in Appendix 1 to the SCP will satisfy section 3 (a) and (b) of the SCPR. The SCPR requires that all regulated persons have a signed declaration stating that the SCP is true, accurate, and complete and that all of the requirements in the SCPR are contained within the SCP. The declaration must be completed and signed by an authorized representative of the regulated person and attached to the SCP. The declaration requirement applies to both new and existing SCPs, even if the regulated person already has a SCP in place that satisfies all other requirements of the SCPR. The declaration template is available in Appendix 1 of this guidance document and on the [EEP website](#).

In the first section of the declaration, regulated persons must provide the following information:

- Legal name of the regulated person's company

- If the regulated person is a corporation, provide the full legal name as registered with the B.C. Registrar of Companies
 - If the regulated person is an individual, provide the full legal surname and given name of the individual
 - If the regulated person is a company, provide the full legal name of the individual who will be signing on behalf of the company
- Provide the job title of the person signing the declaration
- The declaration must be signed by the individual named as the signatory for the regulated person; individuals who are eligible to sign the declaration:
 - If the regulated person is an individual, the regulated person signs
 - If the regulated person is a corporation, the director or an officer of the regulated person signs
 - If the regulated person is a partnership, then either the partner who is an individual, a director, or an officer of a partner that is a corporation can sign
- The date (day-month-year) that the declaration was signed by the regulated person
- Provide the full legal address for the regulated person
- Designated contact information
 - Provide the full legal name of the company that the designated contact is employed by, if the company is a corporation, provide the full legal name as registered with the B.C. Registrar of Companies
 - Surname and given name
 - Official job title
 - Direct email address
 - Phone number
 - Full legal address of the designated contact's company

The second section of the declaration is a table which includes a list of the content required in the SCP along with a space to list the corresponding page number(s) where the content can be found within the regulated person's SCP. Table 2 below provides an example of how to include the SCPR requirements and the associated page number(s) where information on each section of the requirements can be found within the SCP. If aspects of an existing SCP are missing, they can be added as an appendix at the end of the existing SPC or incorporated into the SCP as the regulated person sees fit as long as it is done in a manner that complies with the SCPR.

Table 2: Page numbers in the Spill Contingency Plan where information that satisfies the requirements of the Spill Contingency Planning Regulation is available

Section of the SCPR	Page number(s) in SCP
Section 3 Contents of SCP	Pages X – X
Section 4 Hazard assessment Section 4 (2)	Pages X, X, and X Appendix 1 Page X
Section 5 Spill response planning map	Pages X – X
Section 6 Equipment, personnel, and other resources	Pages X – X and X- X
Section 7 Incident Command System	Pages X and X
Section 8 Human health and safety Section 8 (b)	Pages X – X Appendix 2 Page X
Section 9 Communication procedures	Pages X – X and X
Section 10 Waste management Section 10 (2)	Pages X – X Appendix 3 Page X
Section 11 Wildlife	Pages X – X
Section 12 Spill response procedures	Pages X, X, X, and X
Section 13 Training	Pages X – X

The final section of the declaration should include a description of the regulated substances that the SCP covers, specifically:

- Column 1 – the common name of the substance(s)
 - Must be listed exactly as it appears in the schedule section of the SPRRR
- Column 2 – the classification for the substance(s)
 - Must be listed exactly as it appears in the schedule section of the SPRRR
- Column 3 – worst-case scenario volume, in litres, of the regulated substance(s) being transported

Table 3: Example of the list of substances that the Spill Contingency Plan is capable of addressing

Common Name	Classification	Worst-case scenario volume in litres
Gasoline	CAN/CGSB-3.511-2016 Oxygenated automotive gasoline containing ethanol (E1-E10)	30,000
Petroleum distillates	CAN/CGSB-3.27-2012 Naphtha Fuel	40,000

6.2 Hazard assessment

Section 4 of the SCPR is intended to address the requirement in section 91.11 (2) of EMA that regulated persons undertake investigations, tests, and surveys prior to developing a SCP in order to inform the content of the SCP. Hazard assessments provide a description of potential impacts of a spill to human health, the environment, and infrastructure should a spill occur in the specific area. Hazard assessments must be based on the sector-specific worst-case scenario spill volume as described in section 2 of the SCPR.

SCPs rely on a thorough hazard assessment as the response actions identified in the other sections of the SCP must be designed to protect the vulnerabilities identified in the hazard assessment. Persons conducting hazard assessments should be trained and experienced in completing hazard assessments and should have support from individuals, communities, and agencies with knowledge of the area where the regulated person is operating.

Section 4 the SCPR on hazard assessments deals specifically with hazards associated with a spilled substance or substances, however, other hazards may need to be considered when planning to respond to spills of regulated substances. Examples include seismically active areas, areas with historical pipeline failures, or highway routes which may experience high risk driving conditions.

6.2.1 Description of the properties of the substance

The properties of the regulated substance must be described in the hazard assessment section of SCPs as outlined in section 4 (1) (a) of the SCPR:

The spill contingency plan must contain the following information about the regulated substance:

- (a) a description of the properties of the substance that are relevant to its potential to cause adverse effects to the environment, human health or infrastructure

Regulated persons can develop a single SCP that applies to multiple substances on condition that it is clear that the SCP addresses multiple substances and that the response actions listed throughout the SCP are applicable to the substances listed in the hazard assessment. Regulated persons must also ensure that all of the substances that the SCP is intended to address are described fully in the hazard assessment section of the SCP. Substances must be listed exactly as they appear in the schedule section of the SPRRR, see table below.

Table 4: Regulated substance and classification

Item	Common Name	Classifications
1	Aviation fuel	CAN/CGSB-3.23-2012 Aviation Turbine Fuel (Grades JET A and Jet A-1)
		CAN/CGSB-3.22-2012 Wide-Cut Type Aviation Turbine Fuel (Grade JET B)
		CGSB-3.24-2012 Aviation Turbine Fuel (Military Grades F-34 and F-44)
2	Bunker fuel	CGSB-3.11-2010 Naval Distillate Fuel
		ISO 8217:2012 Petroleum products- Fuels (class F)- Specifications of marine fuels
3	Crude oil or diluted bitumen	TDG UN 1267
		TDG UN 3494
4	Diesel fuel	CAN/CGSB-3.517-2015 Diesel fuel
		CAN/CGSB-3.522-2015 Diesel fuel containing biodiesel (B6-B20)
		CAN/CGSB-3.18-2010 (R2016) Diesel Fuel for Locomotive-Type Medium-Speed Diesel Engines
		CAN/CGSB-3.520-2015 Diesel fuel containing low levels of biodiesel (B 1-B5)
		CAN/CGSB-3.524-2011 Biodiesel (B 100) for Blending in Middle Distillate Fuels
5	Gasoline	CAN/CGSB-3.5-2016 Automotive gasoline
		CAN/CGSB-3.511-2016 Oxygenated automotive gasoline containing ethanol (E1-E10)
		CAN/CGSB-3.512-2013 Automotive ethanol fuel (E50-E85)
6	Heating fuel	CAN/CGSB-3.2-2015 Heating fuel oil
7	Kerosene	CAN/CGSB-3.3-2014 Kerosene
8	Petroleum distillates	CAN/CGSB-3.27-2012 Naphtha Fuel

The properties described in section (4) (1) (a) of the SCPR should be described in sufficient detail to allow for the identification of appropriate response actions in subsequent sections of the SCP. For example, only stating that a substance is toxic would be insufficient; if a substance is identified as toxic, it should be accompanied by a description outlining how it is

toxic to human health and the environment, including the impacts (e.g. if this substance is inhaled or absorbed through skin, the subject may experience dizziness and shortness of breath).

The requirements under section (4) (1) (a) of the SCPR can be partially satisfied by including a copy of the information in a Workplace Hazardous Materials Information System (WHMIS) 2015 Safety Data Sheet (SDS), formerly the Material Safety Data Sheet, for the regulated substance being described. If an SDS is provided to aid in satisfying the requirements of section (4) (1) (a) of the SCPR, it is the responsibility of the regulated person to ensure that the SDS is current and includes information regarding all of the properties that cause adverse effects to human health, the environment, and infrastructure. Supplemental information outside of the SDS may be necessary. The SDS is part of the WHMIS 2015 Program which is covered in Part 5 of the B.C. Occupational Health and Safety Regulation (OHSR). The OHSR contains legal requirements that must be met by all workplaces under the inspectional jurisdiction of WorkSafeBC. More information on the SDS is available on the WorkSafeBC website.

6.2.2 Types and sizes of the means of containment

Information on how regulated substances are contained must be described as outlined in section 4 (1) (b) of the SCPR:

- (b) a description of the types and sizes of the means of containment used
 - (i) to transport the substance, and
 - (ii) if the regulated person is a pipeline transporter, to store the substance incidentally to its transportation

The “means of containment” refers to the vessel within which the regulated substance is being contained for transport. The SCP must include sufficient detail to inform response actions should the means of containment fail. In addition to a description of the means of containment, information describing techniques to shut-off or contain a spill are also encouraged. For example, a TC-406 cargo tank has an emergency shut-off valve at the front driver side of the trailer. One option is to reference design documents or standards. For example, a SCP for a company transporting a regulated substance by road may reference the CSA-B621 standard which is for highway tanks used to transport Class 3 dangerous goods. Whether the SCP includes detailed design documents or drawings will be left to the discretion of the regulated person.

6.2.3 Risk assessment

The assessment of the magnitude of risk is important as the magnitude of risks identified can be considered in other sections of the SCP to ensure that plans are in place to mitigate those risks following a spill. The assessment of the magnitude of risk is based on the worst-case scenario spill volume. For example, if a risk assessment identifies a risk to a particular waterbody, the regulated person must outline response actions in their SCP that specifically address that waterbody and the impacts of a worst-case spill.

Risk assessments must be described in the SCP as outlined in section 4 (1) (c) and 4 (2) of the SCPR:

- (c) an assessment of the magnitude of the risk to the environment, human health and infrastructure that would result from the worst case scenario of a spill of the specified quantity of the substance.
- (2) The assessment referred to in subsection (1) (c) must identify the aspects of the environment, human health and infrastructure that are at risk of being adversely affected by that spill

The risk assessment must:

- Analyze how a release may occur, including, but not limited to, human or procedural error (e.g. leaving a valve open during tank filling) and equipment failures (e.g. valve failure at a pipeline pump station)
- Consider the types of damage that could occur to the means of containment (e.g. tank puncture during a motor vehicle accident)
- Consider the potential extent and types of areas that could be impacted by a spill. Response equipment and tactics will differ greatly if a spill occurs in an urban residential area compared to rural river valley. A transport route is unlikely to be uniform and assessments should divide routes into segments based on:
 - Geographic features, such as land use (e.g. industrial, agricultural, commercial, residential and parklands);
 - Proximity to bodies of water; and
 - Topography (e.g. mountainous, river valleys, and prairies).
- Consider the length of time it will take to have response resources at the spill site, in particular, how long it will take to have response capacity to stop the spill and contain the spilled substance; this calculation will also help inform estimates on the quantity of a substance that will spill over an area
- Consider the proximity of protected areas listed in the schedule section of the SCPR that could be impacted by a spill including the name of the protected area and its location
- Estimate the potential duration of spill impacts, considering factors such as the substance type and receiving environment. While exact durations may not be possible to determine due to situational variability, an approximate duration must be provided. Provide the potential duration of spill impacts in general time frames such as:
 - Hours or days (e.g. spilled diesel fuel vapours causing nausea and/or headaches on nearby residents);
 - Weeks or months (e.g. spilled aviation fuel in a dry road ditch killing local vegetation); or
 - Years (e.g. heavy crude oil contaminating groundwater).

- Evaluate the severity of impacts on human health, the environment, and infrastructure. In emergency planning, severity is generally assigned to categories which could be numerical (e.g. 1 to 10) or descriptive (e.g. low, medium, or high). Categories should be explained, reflect specified criteria, and be relevant to response planning. Examples include:
 - A fatality or likely fatality from spilled material would be considered a high level of severity for an impact on human health;
 - Air emissions with the potential to impact neighbouring wildlife or vegetation would be considered a medium level of severity for an impact on the environment; and
 - Spilled material entering a pump which could still operate and be quickly cleaned and repaired would be considered a low impact on infrastructure.

- List the factors that could impede an effective response:
 - Winter weather conditions in mountain passes could limit access to respond in those areas
 - Long sloping terrain could enable spilled material to travel longer distances in short periods of time
 - Areas where high traffic volumes could significantly slow response times (e.g. a spill on a major route during rush hour in the Lower Mainland would typically have longer response times for responders than a spill during rush hour in a small town)

In completing hazard assessments, the ministry encourages regulated persons to engage fully with Indigenous communities, local governments, regional districts, federal and provincial agencies, and other entities that may have information on local conditions that could influence the content of a hazard assessment. Archaeological site records in the B.C. Archaeological Site Inventory are available on a need to know basis only. Regulated persons can contact the B.C. Archaeology Branch to determine if any sites of interest are in the area where they operate or intend to operate. Information on how to contact the B.C. Archaeology Branch is available on the Ministry of Forests, Lands, Natural Resource Operations & Rural Development website at <https://www.for.gov.bc.ca/archaeology/index.htm>.

6.3 Spill response planning map

Section 5 of the SCPR outlines the requirements for the inclusion of a Spill Response Planning Zone (SRPZ) map for regulated substances in SCPs. The SRPZ is the area that may be impacted in the event of a worst-case scenario spill. This section is intended to assist regulated persons in understanding the data requirements for developing an effective SRPZ map, as well as provide sufficient information to plan appropriate response strategies. The SRPZ map must provide spatial information that clearly illustrates the environmental, social, economic, and cultural values within the SRPZ.

The main purposes of the SRPZ map include:

- Enabling responders to respond quickly during a spill or potential spill incident to protect human health, the environment, and infrastructure;

- Assisting regulated persons to identify sensitive areas, prevent regulated substances from reaching sensitive areas in the event of a spill, and ensure the appropriate response in the event of a spill; and
- Assisting with planning and response decision-making through the development of appropriate response strategies, Incident Action Plans, and environmental monitoring strategies.

The following best-practices should be considered by all sectors when preparing SRPZ maps:

- The map should provide current data and clearly illustrate the requirements outlined in the SCPR
- The map should include a geographic overview of the area surrounding the transportation route that could be impacted by a worst-case spill
- The map should be to scale and be large enough to include the location of nearby buildings, facilities, roads, and any nearby bodies of water surrounding the transportation route which could be impacted by a spill
- The map should include topographic features of the transportation route which could impact access and response to the location of a spill incident
- The map should include layout elements including scale bars, a compass, and a legend which describe any symbols on the map
- The map should use satellite imagery and/or aerial photos
- Regulated persons should conduct a site investigation to collect current and relevant information using common data gathering techniques and tools.

6.3.1 Pipeline and railway transporters

The pipeline and railway operations SRPZ maps must contain the information outlined in section 5 (1) of the SCPR:

- (1) If the regulated person is a pipeline transporter or railway transporter, the spill contingency plan must contain a map of the spill response planning zone for the regulated substance that shows all of the following:
 - (a) the corridors along which the substance is transported;
 - (b) the facilities used in or related to the transportation of the substance;
 - (c) roads;
 - (d) evacuation routes;
 - (e) topographical features relevant to the movement of or response to a spill of the substance;
 - (f) potential response staging sites and potential spill control points;
 - (g) locations of all of the following, as applicable:
 - (i) bodies of water;

- (ii) wetlands;
- (iii) protected areas;
- (iv) heritage features;
- (v) key infrastructure, including, without limitation, dams and major public and industrial water intakes;
- (vi) areas of human habitation and recreation activities and areas that include hospitals, schools and other public facilities.

Pipeline and railway transporters must provide a SRPZ map identifying the following information:

- Clearly identify the location of the pipeline or railway right of ways
- Provide the location of fuel storage facilities and equipment and a description of the railway and pipeline facility type, facility size, and the location of a permanent or temporary building used for the handling of dangerous goods
- Identify the location of nearby roads designated under the *Transportation Act 2004* and the *Highway Act 1979*; resource roads and petroleum development roads are exempt from the SRPZ mapping requirements, but should be considered as alternate access and egress routes in the SCP
- Provide the location of any predesignated evacuation (reception) centres and a description of potential isolation and evacuation zones
- Outline the topographic features that may alter the impact of a spill (e.g. slope, contour lines, and elevation)
- Identify the following:
 - potential staging site locations that would best support response operations in the event of a spill; staging sites provide a location where equipment and personnel can be received and prepared for deployment to the spill site, as well as equipment remobilization or demobilization
 - the location of control points for spill response equipment such as containment and recovery equipment; control points should be selected based on the ability to safely access water bodies and hydrogeological features allowing for the successful collection of product, control points should be ground-truthed and tested
- Identify whether particular areas, surface features, or structures may be impacted by an spill or may impact the response to a spill and include:
 - The location of surface features as designated under *Water Sustainability Act 2014* (e.g. rivers, stream networks, and lakes)
 - The location of wetlands as defined under *Water Sustainability Act 2014* (e.g. a swamp or a marsh)
 - The location of protected areas and species habitat, such as national and provincial parks, mountain goat winter habitat, and ungulate winter range, and the location of protected areas set out in the Schedule of the SCPR

- The location of heritage sites or heritage objects designated under section 9 (1) of the *Heritage Conservation Act 1996*
- The location of key buildings or bridges, drinking water intakes, utility conduits, and wastewater treatment plants
- The location of any other areas that may be used by the public; including hospitals, schools, community centers, and public or recreational facilities

6.3.2 Highway transporters

Highway transporter SRPZ maps must contain the information outlined in section 5 (2) of the SCPR:

- (2) If the regulated person is a highway transporter, the spill contingency plan must contain a map of the area in which the regulated person regularly transports the regulated substance that shows all of the following:
- (a) if the regulated person uses a regular route, the roads along which the regulated person regularly transports the regulated substance;
 - (b) topographical features relevant to the movement of or response to a spill of the substance;
 - (c) bodies of water.

Highway transporters must provide a SRPZ map identifying the following information:

- The location of the roads along which the regulated person regularly transports the regulated substance as designated under the *Transportation Act 2004* and the *Highway Act 1979*; resource roads are exempt from the SRPZ mapping requirements
- The topographic features that may alter the impacts of a spill (e.g. slope, contour lines, and elevation)
- The location of surface features designated under the *Water Sustainability Act 2014* (e.g. rivers, stream network and lakes)

6.4 Equipment, personnel, and other resources

Section 6 of the SCPR is intended to address the requirement in EMA that regulated persons must identify personnel, equipment, and resources, contracted or owned, which are available to them in order to quickly control, contain, and remove product in the event of a worst-case spill. Regulated persons must also provide a written inspection and maintenance program for equipment. This information can be included in the body of the SCP or in the appendices. In completing this section of the SCP, the ministry encourages regulated persons to consider the linkages between resources and response times as a best practice. Mobilizing resources to spill sites quickly and safely helps to minimize the impact of a spill. Regulated persons may consider including time estimates for mobilizing resources safely to the spill site. Please note: human health and safety, including responder safety is of paramount importance and must not be compromised in order to arrive at a spill site within the identified timeframes.

Lists of equipment, personnel, and other resources must contain the information outlined in section 6 (1) (a) of the SCPR:

- (1) The spill contingency plan must contain the following information:
 - (a) a list of the equipment, personnel and other resources that the regulated person intends to use in responding to and cleaning up the worst-case scenario of a spill of the specified quantity of the regulated substance

Documentation related to equipment, personnel, and other resources maintained on behalf of the regulated person must contain the information listed in section 6 (1) (b) of the SCPR:

- (b) for each piece of spill response equipment listed for the purposes of paragraph (a) that is maintained by or on behalf of the regulated person,
 - (i) a copy of records evidencing the inspection and maintenance of the equipment, or
 - (ii) a copy of any agreement under which a person other than the regulated person agrees
 - (A) to be responsible for the inspection and maintenance of the equipment, and
 - (B) to maintain, and produce to the minister on request, records evidencing the inspection and maintenance of the equipment.

In addition to the requirements listed in section (6) (1) of the SCPR, section (6) (2) of the SCPR requires regulated persons to ensure that emergency equipment and personnel are available in cases where the regulated substance is flammable, harmful to human health, or volatile and harmful to human health. In cases where fire response, first aid, and air monitoring equipment and personnel are available internally, the SCP must include a detailed inventory as described in section (6) (1) (a) of the SCPR. A description and evidence of the arrangements agreed to by these entities to coordinate emergency services will be required. Special attention must be paid if the regulated person is operating outside of a fire protection area, as evidence of capacity to provide these services will be required.

Note: There are areas within B.C. that do not have 911 coverage and there are areas within B.C. that are not within fire protection areas.

Flammable regulated substances must contain the information outlined in section 6 (2) of the SCPR:

- (2) Without limiting subsection (1) (a), the list must include equipment, personnel and other resources to be used for the following purposes, if applicable
 - (a) if the regulated substance is flammable, firefighting;
 - (b) if the regulated substance is harmful to human health, first aid;
 - (c) if the regulated substance is volatile and harmful to human health, air quality monitoring.

The WHMIS 2015 SDS for each hazardous material will contain information on first-aid measures, fire-fighting measures, accidental release measures, and on specific equipment and materials for containment and clean up in the event of a spill. The SDS for each substance transported should be consulted as part of the planning process. Resources listed in this section of the SCP should be consistent with the SDS.

6.4.1 Equipment

The requirements under section (6) (1) (a) require an inventory of emergency equipment and personnel which is sufficient to address a worst-case scenario spill, ensuring that regulated persons are prepared to address a worst-case spill as well as any spill of a lesser magnitude. All resources required for responding to and cleaning up a spill must be listed. Table 5 below provides an example of response resources and their description; this should not be considered an exhaustive list.

Table 5: Response resources

Item	Description
Spill kit and contents	If appropriate for the sector, an in-vehicle spill kit may be required. The contents of a spill kit may include: 2 chemical protective splash suits, 2 pairs of chemically compatible gloves, 10 large industrial bags (approximately 60 litres) with ties for temporary use, 2 oil only booms (5" x 10"), 50 oil only mats (16" x 20"), 5 sorbent socks, 10 sorbent pads, 2 large tarps, 1 roll duct tape, 1 utility knife, 1 field notebook and pencil, 1 rake, 1 pick axe, 3 aluminium scoop shovels, 1 instruction binder
Personal protective equipment (PPE)	PPE requirements must be based on the SDS information for the regulated substance; for more information on PPE requirements, see section 8 (human health and safety) of SCPR
Response equipment and materials	Ensure that suitable resources are available to address a worst-case spill, either purchased or contracted. Response equipment may include items such as containment boom, sorbent materials, vacuum trucks, oil skimmers, heavy equipment, storage, etc.
Safety and monitoring equipment	Include a description of equipment, including any specialized equipment, required for clean up or disposal of regulated substances
Primary communications equipment	Identify the types of communication equipment to be used by personnel during a spill response including cellular telephones, megaphones, two-way radios, radio frequencies, range, etc.; for more information on communication equipment requirements see section 9 (communication procedures) of the SCPR
Back-up communications	As standard means of communication can fail, alternative means should also be identified

systems	
Means of transportation	Identify requirements for the transportation of materials, equipment, and services to a spill site
Waste containment and disposal equipment	Identify preferred spill waste storage, treatment, and disposal options
Wildlife deterrents and rehabilitation systems	Wildlife rehabilitation systems must include a description of deterrents, transport equipment, and rehabilitation facilities as outlined in section 11 (wildlife) of the SCPR; a list of equipment under this section satisfies requirements under section 11 of the SCPR

Note: Table 5 contains a list of response resources that the ministry expects most SPCs to contain; however, it should not be considered a comprehensive list. Regulated persons may identify other equipment that they believe is necessary to support an effective response to a worst-case spill.

The list of response resources, either contracted or owned, must also include the location where equipment is stored, a physical description of each item on the list (including manufacturer's name, manufacturing date, model number, and specifications), and a brief description of its capabilities. Table 6 below can be used to assist in generating the list of emergency equipment and related information.

Table 6: Equipment inventory

Identification #	Item	Location	Description	Function/ Capability
Consider tracking equipment using unique identification numbers	State the type of equipment	Location where equipment is stored	State the manufacturer name, manufactured date, model number, and other specifications	State the purpose of the equipment including removal rate, capacity, etc.
e.g. #456445	e.g. skimmer xyz	e.g. equipment cache A, address and/or latitude/longitude	e.g. skimmer brand and model, year in service	e.g. used to do x, y, and z on a fast flowing river, capable of collecting x cubic feet/hour of product

All equipment must be tested, inspected, and maintained to keep it in a state of readiness for response. A description of the equipment inspection and maintenance schedule and the procedures and details on how to obtain inspection and maintenance records must be provided in the SCP. If applicable, regulated persons must include a record of any contracts to provide inspection and maintenance services. Inspections and maintenance for all equipment may be presented in tables, see Tables 7 and 8 below.

Table 7: Equipment inspection schedule

Identification number	Item	Location	Date	Name	Comments	Approval
Should consider tracking equipment using unique identification numbers	State the type of equipment	Equipment location	Date of inspection	Name, title and signature of inspector or contractor involved	Details of inspection/condition of equipment	If required, name, title, and signature of approving personnel/authorities
e.g. #456445	e.g. skimmer xyz	e.g. equipment cache A, address and/or latitude/longitude	e.g. 01/01/18	e.g. J. Smith, Inspector	e.g. Maintenance required	e.g. A. Wilson, Manager

Table 8: Equipment maintenance schedule

Identification number	Item	Location	Date	Name	Comments	Approval
Consider tracking equipment using unique identification numbers	State the type of equipment	Equipment location	Date of inspection	Name, title, and signature of inspector or contractor involved	Details of maintenance	If required, name, title, and signature of approving personnel/authorities
e.g. #456445	e.g. skimmer xyz	e.g. equipment cache A, address and/or latitude/longitude	e.g. 01/01/18	e.g. J. Smith, Mechanic	e.g. Widget x, y and z replaced	e.g. A. Wilson, Manager

6.4.2 Personnel

Regulated persons must provide a list of all available response personnel including titles and contact information. The list of response personnel must also identify personnel who can operate the equipment listed, where they are located, and how many personnel would be required to staff a worst-case scenario spill response. Table 9 below can be used to assist in generating the contact information for response personnel.

Table 9: Contact list

Organization	Position	Location	Name	Contact Information
Name of organization	Name of position within the organization	Address of responder	Full name of the responder	Contact information
e.g. Company XYZ	e.g. Manager, Spill Response	e.g. 987 First Street, Vancouver, BC	e.g. John Smith	e.g. Cell: 987 123 – 3333

6.4.3 Contractors

As outlined in section (6) (1) (b) of the SCPR, regulated persons must identify any prearranged contracts to provide spill response equipment or personnel, as well as equipment inspection, maintenance schedule and procedures, and record keeping practices. If applicable, regulated persons must list external response arrangements and/or established mutual aid support agreements for all other complementary equipment and personnel including:

- External spill response services and equipment including a list of the specific type of services and/or equipment available and contact information and/or location where these resources can be found;
- Specialized personnel (e.g. waste or wildlife management specialists) available, including the service being provided and their contact information (or location where this information can be found); and
- The mechanism to activate the arrangement for equipment or personnel to obtain the desired resources.

If regulated persons intend on using contractors, details regarding response/cleanup contractors must be provided in the SCP. At least one alternate response contractor is recommended to ensure coverage in cases where listed equipment and personnel have been retained for another purpose and are not available to respond in the manner outlined in the SCP. It is the responsible person's (spiller) responsibility to ensure an effective response.

Example of how to identify prearranged contracts in SCPs:

A coordinated response to larger spill incidents may require the assistance of outside contractors or other responders, in which case, Company A may draw upon established agreements with specialized contractors: Contractor A and Contractor B. Contractor A will be contacted first and will act as the primary response/cleanup contractor and Contractor B will act as the alternate or in a support role. Contact information is provided in Table 6. Both contractors have immediate access to equipment and materials outlined in Table 7. Each contractor has sufficient response equipment to contain and recover 10,000 litres of product. The equipment inventories of Contractor A and Contractor B are maintained with the response agreements and updated annually. The agreed contractual terms are appended to the SCP.

6.5 Incident Command System

Section 7 of the SCPR on Incident Command System (ICS) is intended to ensure that regulated persons can manage a spill response using ICS. ICS is a widely accepted command and control structure, used extensively by first responders, governments, and industry in B.C. and provides a means to coordinate the efforts of multiple agencies and resources for the protection of life, property, and the environment. ICS has been adopted throughout North America and has been tested and proven to be effective in a range of emergencies. The ICS organizational structure, shown in Figure 1 below, consists of five sections: command, operations, planning, logistics, and finance. It can expand and contract based on need (e.g. the scope of the incident, availability of personnel and other resources, and the number and complexity of hazards). As incident complexity increases, the structure has the ability to expand, increasing to accommodate additional staffing and resource requirements.

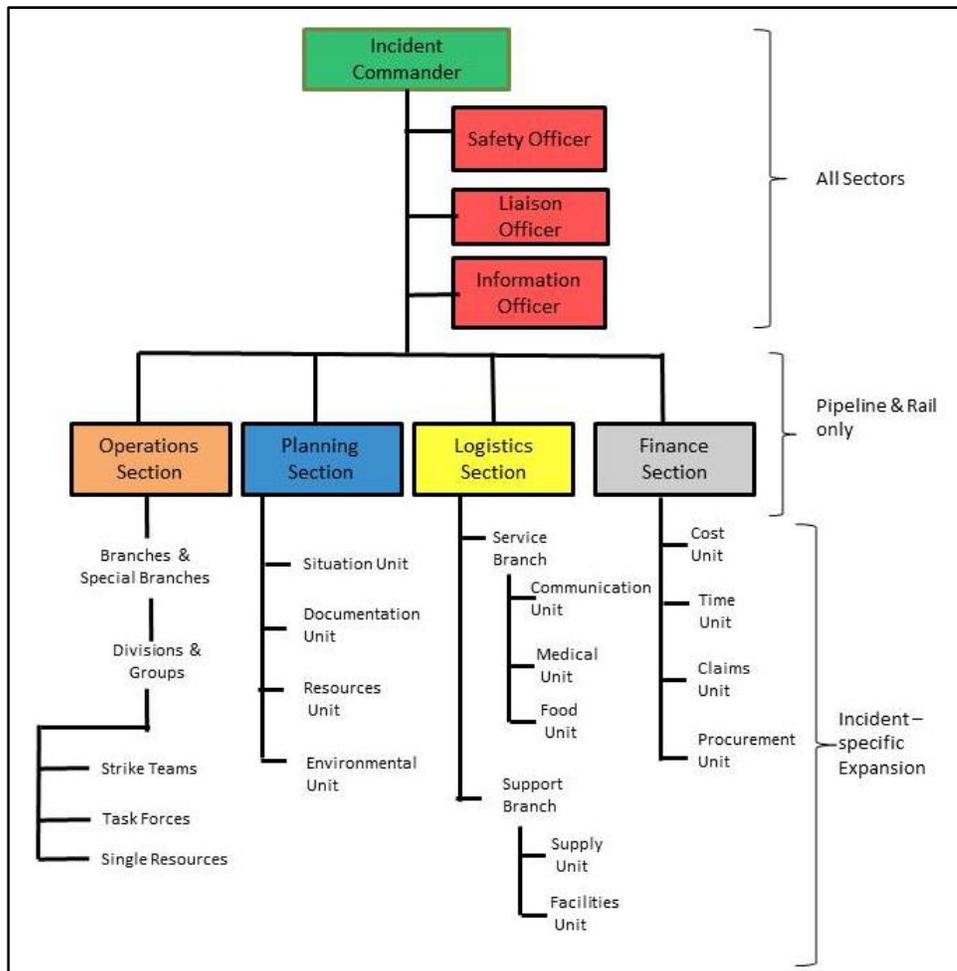


Figure 1 Incident Command System organizational structure

While local government agencies such as police and fire departments may be the first to arrive at a spill site, the responsible person is required to respond quickly and effectively to the spill and should be capable of taking over the spill response at the scene. Depending on the scale of the incident, this could require the establishment of an on-scene Incident Command Post (ICP). The ICP provides a central coordination point from which the Incident Commander (IC) and those participating in the central ICS structure operate. Initially, the ICS may consist of an IC with a small group of first responders. As the response escalates, the IC may consider staffing the command staff positions; a safety officer, an information officer, and a liaison officer. As additional resources are added, section chiefs for operations, planning, logistics, and finance may become necessary; these positions are described in Table 10 below.

Table 10: Incident Command System roles and descriptions

Role	Description
Incident Commander	Responsible for managing all tactical resources and operations
Information Officer	Serves as the point of contact for the media and other organizations seeking information directly from the incident site

Safety Officer	Monitors safety conditions and develops measures for ensuring the safety of personnel
Liaison Officer	Serves as the primary contact for cooperating or assisting agencies
Operations Section Chief	Directs and coordinates all tactical operations and resources
Planning Section Chief	Conducts long-range planning, maintains resource status, displays incident information and maintains incident documentation
Logistics Section Chief	Obtains services, equipment, supplies, maintains facilities
Finance Section Chief	Monitors costs, tracks claims, assists in obtaining funds

For a large and/or complex incident, the ICS sections will be expanded to include units that handle specific tasks such as tracking resources, setting up facilities, etc. The response may require staging areas for vehicles and equipment, off-site space for sections such as logistics and finance, and facilities for personnel to eat and rest. Regulated persons must have a clear understanding of their requirements for a worst-case spill response. Individuals identified to staff the ICS positions should be trained in the ICS principles and understand their role in a worst-case spill response incident. See training requirements in section 6.11 of this document.

All regulated persons must identify individuals to fill specific ICS positions. Pipeline and railway regulated persons are required to identify people to fill additional positions in the ICS in SCPs, that highway transporters are not. Pipeline and railway operations are required to identify additional ICS positions because a worst-case spill by these operations will typically involve larger volumes of regulated substances, resulting in the need for an extensive response compared to spills from highway transporters.

6.5.1 Pipeline and railway transporters

Pipeline and railway transporters must identify ICS roles as outlined in section 7 (1) (a) and (b) of the SCPR:

- (1) If the regulated person is a pipeline transporter or railway transporter, the spill contingency plan must identify the following:
 - (a) the roles in the incident command system, which must include at least the following:
 - (i) incident commander;
 - (ii) information officer;
 - (iii) liaison officer;
 - (iv) safety officer;
 - (v) chiefs of the following sections:
 - (A) administration/finance;
 - (B) logistics;
 - (C) operations;
 - (D) planning;
 - (b) for each of those roles, the job titles of one primary and 2 alternate individuals who are to fill the role.

Regulated persons are required to identify people in SCPs with appropriate training to fulfill the responsibilities of the ICS positions that they have been assigned. Trained personnel must be available to staff these positions at all times when the regulated person has possession, charge, and/or control of the substances for which they are regulated, including outside of regular business hours. Two alternate individuals for each required ICS position must be identified to ensure appropriate coverage.

Alternate individuals for each ICS position from various geographic locations should be listed to ensure that personnel are available along the transportation route and that timeframes are not impacted due to travel constraints (e.g. weather) out of a single location. It is acceptable to list response contractors to staff ICS positions. Regulated persons must ensure that alternates who are not contractors are identified for instances where a response contractor is not available. Provide job titles for each individual listed, including response contractor staff, and include their title for the ICS position they are required to fill and their job title from the organization that they work. See Table 11 below for an example.

Table 11: Example Incident Command System positions for pipeline and railway

Position	Primary	Alternate	2nd Alternate
Incident Commander	John Smith President, 123 Railway Co.	Jane Doe Hazard Response Ltd.	Emergency Planner, 123 Railway Co.
Safety Officer	Safety Manager, 123 Railway Co.	Assistant Safety Manager, 123 Railway Co.	Operations Manager, 123 Railway Co.
Information Officer	Public Relations Manager, 123 Railway Co.	Assistant Public Relations Manager, 123 Railway Co.	Public Relations Assistant, 123 Railway Co.
Liaison Officer	Assistant Operations Manager, 123 Railway Co.	Supervisor A, 123 Railway Co.	Supervisor B, 123 Railway Co.
Operations Section Chief	Operations technician, Response Contractor A	Technician A, Response Contractor A	Technician B, Response Contractor A
Planning Section Chief	Emergency Planner, 123 Railway Co.	Technician C, Response Contractor A	Technician D, Response Contractor A
Logistics Section Chief	Purchasing Manager, 123 Railway Co.	Assistant Purchasing Manager, 123 Railway Co.	Technician E, Response Contractor A
Finance Section Chief	Senior Accountant, 123 Railway Co.	Human Resources supervisor, 123 Railway Co.	Accountant, 123 Railway Co.

6.5.2 Highway transporters

Highway transporters must identify ICS roles as outlined in section 7 (2) of the SCPR:

- (2) If the regulated person is a highway transporter, the spill contingency plan must identify the following:
 - (a) the roles in the incident command system, which must include at least the following:
 - (i) incident commander;
 - (ii) information officer;
 - (iii) liaison officer;
 - (iv) safety officer;
 - (b) for each of the roles, the job titles of one primary and one alternate individual who are to fill the role.

Highway transporters are required to identify one alternate for each ICS position that they are required to fill, as opposed to the two alternates required by the pipeline and railway sectors. The four ICS positions that highway transporters must fill are: (1) IC, (2) information officer, (3) liaison officer, and (4) safety officer.

Regulated persons are required to identify people with appropriate training to fulfill the responsibilities of the ICS positions they have assigned in SCPs. Trained personnel must be available to staff these positions at all times when the regulated person has possession, charge, and/or control of the substances for which they are regulated, including outside of regular business hours. One alternate individual for each ICS position is required and must be identified to ensure appropriate coverage.

Alternate individuals for each ICS position from various geographic locations should be listed to ensure personnel are available along the transportation route and timeframes are not impacted due to travel constraints (e.g. weather) out of a single location. It is acceptable to list response contractors to staff ICS positions. Regulated persons must ensure that alternates who are not contractors are identified for instances where a response contractor is not available. Provide job titles for each individual listed, including response contractor staff, their title for the ICS position that they are required to fill, and their job title from the organization where they work. See Table 12 below for an example.

Table 12: Example of Incident Command System positions for highway transporters

Position	Primary	Alternate
Incident Commander	John Smith President, 123 Railway Co.	Jane Doe Hazard Response Ltd.
Safety Officer	Safety Manager,	Assistant Safety Manager, 123

	123 Railway Co.	Railway Co.
Information Officer	Public Relations Manager, 123 Railway Co.	Assistant Public Relations Manager, 123 Railway Co.
Liaison Officer	Assistant Operations Manager, 123 Railway Co.	Supervisor A, 123 Railway Co.

6.6 Human health and safety

Section 8 of the SCPR requires regulated persons to include information on human health and safety measures that may be employed during a spill response. Having procedures in place and communicated to individuals responsible for administering them will help protect the health and safety of responders and the public.

Responder safety procedures must be included in SCPs as per section 8 (a) of the SCPR:

- (8) The spill contingency plan must include procedures for
- (a) protecting the health and safety of individuals involved in spill response actions

The requirements under section 8 (a) of the SCPR require regulated persons to plan for responder safety by including information on the following items:

- Trade name and generic name(s) of the prescribed substance that are being transported
- Principal hazards should be identified such as fire, toxic, carcinogen, refrigerated, etc.
 - The SCP section on hazard assessments should be cross referenced in this section to ensure that all hazards to human health, infrastructure, and the environment are identified and ranked based on severity with primary hazards highlighted (similar to the Emergency Response Guidebook) to quickly identify them for emergency response personnel
- A list of PPE to be worn at different stages of the response, this could be outlined in a table which identifies PPE items and when they need to be worn, see Table 13 below
 - PPE is anything worn by personnel to ensure their safety while responding to an incident; this can include hardhats, chemical resistive clothing, safety toed foot wear, and respiratory protection
 - The PPE requirements laid out in this section should be consistent with the evaluation conducted under section 8.4 of the Occupational Health and Safety Regulation under the authority of the *Workers Compensation Act 1996*; see <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation> for more information
 - SCPs must not be in contravention to the *Workers Compensation Act 1996* or any of the associated regulations

Table 13 Example of Personal Protective Equipment by response phase

Item	Response phase – Major contamination	Remediation phase – Cleaning up residue
Respiratory protection	Positive Pressure Self Contained Breathing Apparatus (SCBA)	Half mask air purifying respirator (APR) with P100 cartridges
Hand protection	Butyl rubber gloves	Nitrile gloves
Chemical protective clothing	Level B – Non-encapsulated splash suit rated for exposure to product	Disposable coveralls
Eye protection	SCBA mask	Safety glasses
Other protection required	Hard hat	Hard hat
Foot protection	Steel toed, chemical resistant rubber boots	Steel toed boots

Note: The section of the SCP on human health and safety should be cross-referenced with the equipment, personnel, and other resources section of the SCP. If PPE and all other information required to fulfill the requirements of section 8 (a) of the SCPR is listed in the equipment, personnel, and other resources section of the SCP, then it can be cross-referenced in the human health and safety section of the SCP and the reader directed to the appropriate section and page.

The SCP must identify Time Weighted Averages (TWA), Short Term Exposure Limits (STEL), Ceiling Limits, and Immediately Dangerous to Life and Health (IDLH) levels for the regulated substance and any constituent parts that workers may be exposed to. The levels listed above are set by WorksafeBC and industrial hygienists as thresholds at which workers can operate without prescribed PPE. More information on PPE is available on the WorksafeBC website at <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-05-chemical-and-biological-substances>.

The generic delineation of responder safety zones; exclusion zone (hot zone), contamination reduction zone (warm zone), and support zone (cold zone) should be listed in SCPs. It is understood that each incident site will dictate the specific responder safety zones. Basic decontamination procedures for responders that enter the hot zone are required. It is required that regulated persons list appropriate monitoring methods used in spill response and where these monitors, including the device and operator, are available with a 24 hour contact number listed in SCPs to ensure responder safety. This section of the SCP should also include what substance is being monitored and what the acceptable levels are for responders in various PPE. This information can be located in the SDS along with resources such as the B.C. Centre for Disease Control and the [National Institute for Occupational Safety and Health \(NIOSH\) Pocket Guide to Chemical Hazards](#). In all cases, specifications should be confirmed with the product manufacturer to ensure that responders have the information readily available.

Public safety measures must contain access control information as per section 8 (b) of the SCPR:

- (b) controlling access to and ensuring safety at locations where spill response actions are carried out.

The requirements under section 8 (b) of the SCPR requires regulated persons to take public safety into consideration in areas where spill response actions are taking place by including information on the following items:

- Isolation areas and how they will be maintained
 - These may be different from those used by responders
- Air monitoring procedures
 - Including what substances will be monitored for, what permissible exposure limits for the public are, and if the value of these is above an excepted exposure limit, what measures will be taken to mitigate the risk
- Contact information for local Environmental Health Officers operating in local health authorities and/or the First Nations Health Authority
- Contact information for local authority emergency management programs
- Contact information for traffic control personnel
 - In the event that there is a need to close roads and/or limit public access to an area

These procedures should be signed off by a Qualified Person; in this context a Qualified Person is someone whose education, training, and experience, give them the ability to make a valid conclusion about the harm that may come from exposure to a product.

Note: This section should be cross-referenced with the information provided in the equipment, personnel, and other resources section of the SCP as the contacts for firefighting, first aid, and air quality monitoring all relate to human health and safety. If services have been listed in another section of the SCP, they can be cross-referenced here and the reader directed to the appropriate section and page number.

6.7 Communication procedures

Section 9 of the SCPR is intended to ensure efficient and effective communication with internal and external stakeholders during a spill incident. Regulated persons must detail communication procedures required during spill response incidents within SCPs. Railway and pipeline operators have additional requirements including how they provide information to the public and how they intend to receive information from the public.

Communication procedures for all sectors must include the information outlined in section 9 (1) (a) of the SCPR:

- (1) The spill contingency plan must include procedures for
 - (a) communications among spill response personnel

SCPs must outline the tools, processes, and standard operating procedures that will be used by regulated persons to communicate with internal and external partners during a spill response. SCPs should outline the following:

- Who will receive communications from both internal and external stakeholders; titles and contact information, including on or off-site work locations
 - Section 12 (3) of the SCPR on spill response procedures defines specific requirements for who must be notified internally and externally in the event of a spill
- How the communications will be delivered; this may include the use of radios, cellular phones, satellite phones, network messaging tools, emails, social media, websites, etc.
- Requirements for message approval
- Means to ensure equipment and system interoperability; how regulated persons intend to communicate with response partners including contractors and/or first responders
- Periodic testing of communication systems
 - Planned and unplanned tests for notifications procedures can be used as a tool to test communication tools and protocols

Regulated persons should have a process in place for communicating with external stakeholders during an emergency, including:

- Established communication procedures
- Notification of specific hazards and consequences associated with the emergency
- Notification of resources and response actions

Examples of relevant external stakeholders include:

- Municipal first responders such as firefighters, police, city works
- Response contractors
- Local authority emergency management program contacts including Indigenous community partners
- Regional Emergency Management British Columbia (EMBC) offices
- Health care facilities
- Partner industries that may respond to or be impacted by a spill event

Special consideration must be given to the physical location where communication tools will be used. Regulated persons should understand the geographic nuances that may impact their communication plans. Some considerations are:

- Remote areas may lack cellular network connections
- Terrain such as gullies, ravines, valleys, hills, and mountains which may impede the use of radios
- Rivers, wind prone areas, and weather events may impact communication distances
- Satellite phones can be impeded by terrain features such as tunnels, buildings, bridges, and tree cover
- Large response areas which may require the use of multiple communication methods

Identifying primary and secondary communication methods is best practice to ensure communication redundancies are in place.

Note: Section 17 (b) of the SCPR requires regulated highway transporters to ensure that a copy of the notification procedures including a current contact list and the order of persons to be contacted in the event of a spill is available within the motor vehicle transporting the regulated substance.

6.7.1 Pipeline and railway transporters

Pipeline and railway operations must include public communication procedures as outlined in section 9 (1) (b) of the SCPR:

(b) communications with the public about the spill, including, without limitation, procedures for

- (i) providing information to the public, and
- (ii) gathering information from the public.

(2) Subsection (1) (b) does not apply in relation to a highway transporter.

Pipeline and railway operations are required to outline how the public will be informed about and during a spill incident and how the regulated person will gather information from the public. The following types of information can assist with providing information to the public:

- The platforms that will be used to communicate information to the public
 - Examples include: websites, social media, telephone, radio, and automated messaging services
- The process for executing delivery of information to the public
 - This includes communication approval procedures and notification timelines
- Identifying public groups that must be notified in the event of an emergency
 - The SRPZ map may assist in identifying public groups required to be notified

- Other information such as communication of incident details and how regulated persons can receive information or feedback from the public
- Templates for media releases

For information gathering from the public, the SCP should detail the following:

- What type of information is required from the public and how it will be used by the regulated person
- How the information will be collected
- Who the media contact representative is, along with an alternate, and 24 hour contact information for those identified

6.8 Waste management

The purpose of section 10 of the SCPR is to confirm that regulated persons have a plan in place to manage the waste generated from and in response to a spill. Spills can generate a lot of waste, not only from the substance that was spilled, but also the material used to contain and clean up the spilled substance. Waste can include the recovered substance, contaminated soil or water, food and sanitary wastes, discarded equipment, sorbent pads, and damaged PPE. All waste needs to be properly collected, stored, and disposed of to limit further contamination. Standard refuse requirements must be considered in waste management plans for isolated or remote areas.

Waste management procedures must contain the information outlined in section 10 of the SCPR:

- (1) The spill contingency plan must include waste management procedures for waste resulting from a spill of the regulated substance that identify all of the following:
 - (a) locations at which the waste might be stored temporarily before being transported to a facility referred to in paragraph (c);
 - (b) persons who might transport the waste;
 - (c) facilities at which the waste might be received for disposal.
- (2) If the waste resulting from a spill of the regulated substance is likely to be hazardous waste,
 - (a) the persons identified for the purposes of subsection (1) (b) must include persons licensed under the Act to transport the waste, and
 - (b) the facilities identified for the purposes of subsection (1) (c) must include facilities authorized under the Act to receive the waste for disposal.
- (3) Subsection (1) (a) does not apply in relation to a highway transporter.

6.8.1 Waste management procedures

In order for the waste management procedures to have practical application, they must encompass more than just the locations of the waste staging areas during the emergency

response phase of a spill incident. It is recommended that these procedures include, but not be limited to, the following:

- The person/position responsible for initiating and implementing the waste management procedures
- The conditions under which the procedures will be implemented
- The means of implementing the procedures
- A site map of the waste staging area
- Regulatory approvals (if applicable) and/or a mechanisms to seek approvals during emergency response
- Staging area preparation procedures (e.g. liners, berms, cover)
- Items to be placed at the waste staging area (e.g. bins, sacs, containers)
- Waste characterization procedures
- Waste segregation procedures
- Waste staging area security
- Waste recording and reporting procedures
- Statement of assurance that waste storage will occur only in accordance with EMA, the Hazardous Waste Regulation, and all other applicable statues

6.8.2 Temporary storage

Temporary storage must meet all of the requirements set out in the [Hazardous Waste Regulation](#). In identifying locations to deposit and collect the waste associated with a spill, regulated persons should consider the following:

- Designating approved facilities to receive the waste
- Avoiding areas that would contravene the siting standards for hazardous waste facilities as listed in section 3 and part 5 of the Hazardous Waste Regulation or other applicable municipal, provincial, or federal regulations
- Defining time expectations for waste removal
- Identify persons who might transport the waste
- Identify facilities where the waste can be received for disposal
- If regulated persons identify that appropriately authorized facilities are not available, a complete rationale and supporting evidence must be included in the waste management plan

6.8.3 Waste that is likely to be hazardous

Section 10 (2) of the SCPR requires waste that is likely to be a hazardous waste to be removed by persons licenced under EMA to transport waste to receiving facilities authorized under EMA for disposal. The Hazardous Waste Regulation outlines that the responsible person, as the generator of the waste, assumes full liability for its management. As such, it is the regulated person's responsibility to identify all of the risks associated with the waste from a spill and the spill response. Regulated persons must, at a minimum, identify waste as hazardous or non-hazardous through testing and comparative analysis against the standards in the Hazardous Waste Regulation. Note that when waste is mischaracterized, regulated persons must follow the applicable provisions in the Hazardous Waste Regulation.

6.8.4 Transportation of waste

Transportation of waste refers to the person who will transport the waste and the facility which will receive the waste. When the waste is deemed to be hazardous, the person transporting it requires a Licence to Transport (licenced under EMA) and the facility receiving it must be authorized under EMA to accept hazardous waste. Persons and facilities listed in the waste management plan as being able to transport and receive hazardous waste must be authorized to do so under EMA. Evidence to support authorization must include the authorization documents including copies of all transporters Licence to Transport; these copies should be attached as an appendix to the SCP. The recommended waste management plan template is provided in Appendix 2 of this guidance document.

6.9 Wildlife

Section 11 of the SCPR is intended to ensure that regulated persons have a plan in place to minimize the impacts of spilled substances, response actions, and produced waste on wildlife. Regulated persons must list wildlife professionals (qualified professionals prepared, trained, experienced, possessing the necessary permits and equipped to respond quickly and effectively) along all transport routes within SCPs. Wildlife plans must identify methods for deterring wildlife from coming into contact with a spilled substance and treating wildlife that have come in contact with a spilled substance.

Descriptions of adverse wildlife impacts must contain the information outlined in section 11 (1) of the SCPR:

- (1) If the assessment referred to in section 4 (1) (c) [*hazard assessment*] identifies potential adverse effects to wildlife, the spill contingency plan must describe the following:
 - (a) procedures to deter the wildlife from the spill site, reduce attractants to the wildlife at the spill site or otherwise reduce the presence of the wildlife at, or manage the access of the wildlife to, the spill site;
 - (b) potential sites at which the wildlife could be tended to;
 - (c) persons with relevant expertise who could be called on to assist with tending to the wildlife.
- (2) Subsection (1) (b) does not apply in relation to a highway transporter.

The procedures outlined in the wildlife plan must be followed by the responsible person and by the identified wildlife specialist in the event of a spill, including notification procedures and triggers for wildlife response activation. The wildlife plan must also describe methods to deter wildlife before the arrival of a wildlife specialist and specialized equipment; list procedures that response personnel should follow and any interim deterrent equipment and activities that will be utilized. Equipment used to deter wildlife from a spill site and its surrounding location should be listed in the equipment, personnel, and other resources section of a SCPs. Deterrents can include auditory equipment, visual deterrents, and physical barriers. Deterring wildlife may also include strategies to minimize attractants or redirect wildlife away from the spill site. Strategies and equipment should be recommended by a wildlife specialist. See Table 14 below for an example of how deterrent types and associated equipment and strategies can be listed in SCPs.

Table 14: Examples of wildlife deterrents

Deterrent type	Equipment/Strategy
Auditory (uses noise to deter wildlife from a site)	Noise cannons Predator sounds Loud music
Visual (uses presence, movement to deter wildlife from a site)	Effigies Flagging Reflectors Lights
Barrier (physically prevents wildlife from entering a site)	Fencing Boulders Logs

The wildlife plan must also identify sites for tending to injured wildlife as outlined in section 11 (1) (b) of the SCPR. A map is recommended to identify mobile and stationary wildlife care facilities equipped to handle injured wildlife and sites which can be used by a contractor to tend to injured wildlife.

As outlined in section 11 (1) (c) of the SCPR, regulated persons must list contact information for the wildlife specialist(s) or other person(s) with relevant experience to tend to wildlife that will be contacted in the event of a spill. Timely deployment of this resource is important to minimize impacts to wildlife. Methods used to deter and/or treat wildlife may require permits under the [Wildlife Act 1996](#). Wildlife specialists identified in SCPs must possess all relevant provincial permits required to deter or treat wildlife with access to equipment to handle, transport, and treat injured wildlife in the event of a spill. When identifying wildlife specialist(s) or other person(s) with relevant experience to tend to wildlife, regulated persons must ensure that a timely response is possible in all locations along the transport route(s). Permits cannot be obtained on short notice. They must be obtained in advance of a spill, therefore any wildlife specialists designated in the plan must have relevant permits for the work they're expected to do. For more information on what activities require provincial permits, see the Permit Regulation under the *Wildlife Act 1996* and the Ministry of Forests, Lands, Natural Resource Operations & Rural Development website at http://www.env.gov.bc.ca/pasb/fw_permreg.html.

6.10 Spill response procedures

The purpose of section 12 of the SCPR is to assist regulated persons in developing procedures to effectively respond to spills. SCPs must include procedures on how to conduct an initial assessment of a spill, notify persons about the spill, undertake relevant spill response actions (specifically, actions that the regulated person will take to fully comply with section 91.2 of EMA), and how to monitor and document the spill and actions taken to address it. Note: Highway transporters must ensure that the spill response procedures section of the SCP is contained in all motor vehicles transporting regulated substances. See section 5 of this guidance document on the availability of SCPs to employees.

Content to meet the requirements of section 12 of the SCPR may also be required in other sections of the SCP. In that circumstance, it is expected that regulated persons will include the detailed content in the spill response procedures section of the SCP and either repeat it in the other sections or point readers to the section where the content can be found within the SCP. This is important as the section on spill response procedures within the SCP should be readily available and easy to follow, serving as a step-by-step reference guide during a spill response. For example, section 8 of the SCPR on human health and safety outlines the requirement that SCPs contain procedures to protect the health and safety of individuals involved in spill response actions and controlling access to and ensuring safety at locations where spill response actions are carried out. As there may be some redundant information in the human health and safety and spill response procedures sections of SCPs, it is expected that the detailed information will be contained in the spill response procedures section.

Understanding the risks and potential impacts of a spill informs spill response actions when required. Regulated persons must have procedures in place to explain how response personnel are expected to identify and evaluate the immediate risks and impacts of an incident, classify spills, and assess how to protect the safety of response personnel and the public. A checklist would be useful to ensure that responders consider all environmental, human health, and infrastructure assets. The spill response procedures section of the SCP must also contain the steps response staff are expected to take to gather information, communicate that information, and provide updates as information changes.

6.10.1 Notification

If a spill occurs, or is at imminent risk of occurring, the Spill Reporting Regulation outlines that responsible persons must report it to the EMBC Provincial Emergency Program. The spill response procedures section of SCPs related to notification should be designed to ensure that regulated persons collect all of the information required in the initial spill report; the requirements of the initial spill report are available in the Spill Reporting Regulation and in Appendix 3 of this guidance document. The potential magnitude of the spill is also important information to report; while 50 litres may have spilled, it is also important to report that 50,000 litres remain in the tank and has the potential to spill.

Notification procedures must identify the information outlined in section 12 (3) of the SCPR:

(3) Procedures for notifying persons about the spill must

(a) Identify the following:

- (i) the obligation to report the spill to the Provincial Emergency Program under section 4 (1) [*initial report*] of the Spill Reporting Regulation and the telephone number specified in that section for reporting;
 - (ii) directors, officers, employees and contractors of the regulated person who are to be notified, the order in which they are to be notified and their contact information;
 - (iii) governments and other public agencies that are to be notified and their contact information, and
- (b) include procedures for notifying persons who might need to take protective action in relation to the spill.

SCPs must list the notification procedures for reporting spills. Notification procedure should include:

- The requirement to contact EMBC at 1-800-663-3456 immediately to report the spill
- A list people who have the authority to make decisions on behalf of the company and their contact information
 - Including those listed in the ICS section of the SCP
- A list other regulators that must be notified and their contact information
 - For example: Transport Canada through CANUTEC, the OGC, the National Energy Board
- A list response contractors and their contact information
- A list of any other response personnel that will be contacted to assist in the spill response and their contact information
 - Hazmat contractors, environmental professionals, etc.
 - This information will be identified in the equipment, personnel, and other resources section of the SCP and must be cross referenced in the spill response procedures section
- A list of local and Indigenous community's health authorities and Public Health/Environmental Health Officers and their contact information if the regulated substance may impact human health

6.10.2 Initial assessment

Regulated persons must include the procedures for the initial assessment of spills in order to evaluate and minimize the immediate impacts, classify the spill, and protect the safety of response personnel and the public.

Initial assessment procedures must include the information outlined in section 12 (2) of the SCPR:

- (2) Procedures for initial assessment of the spill must include procedures for the following:
 - (a) identifying and evaluating the immediate risks to and impacts on the environment, human health and infrastructure;
 - (b) classifying spills, which must be based on at least the following factors:
 - (i) the substance spilled;
 - (ii) the quantity of the substance spilled;
 - (iii) the location and circumstances of the spill;
 - (c) assessing
 - (i) what is to be done to protect the safety of spill response personnel and the public, and
 - (ii) whether evacuation is necessary.

Spill volume estimates which are initially reported are often incorrect. Procedures in the SCP should include information on how to update any communications that have gone out as more information about the spill becomes available, including updating the EMBC Provincial Emergency Program. Volumes or quantities of spilled substances must be reported using standardized metric units of measurement and must not be provided using imprecise or unclear measures (e.g. tank, b-train, railway car, cubes, barrels, gallons).

Section 12 (b) (iii) of the SCPR refers to classifying a spill by location; location can be reported as the legal land description, street address, latitude and longitude, or road and kilometre mark. Nearby residential areas must also be reported for products that could have human health implications or warrant evacuations.

If a spill could have human health implications, local police, fire, and emergency medical services should be contacted as soon as possible. Local emergency services contact numbers should be included in the spill response procedures and the equipment, personnel, and other resources sections of the SCP.

6.10.3 Initial spill response

SCPs must outline the initial response actions to be taken in the event of a spill; these response actions must include the procedures as outlined in section 12 (4) of the SCPR:

- (4) Procedures for spill response actions must include procedures for the following:
 - (a) identifying and documenting the location and movement of, and the area covered by, the spill;
 - (b) assessing the current and potential adverse effects of the spill on the environment, human health and infrastructure;
 - (c) mobilizing, deploying and maintaining the ongoing sufficiency of equipment, personnel and other resources;

- (d) establishing the incident command post;
- (e) controlling the source of the spill;
- (f) stabilizing, containing, removing and cleaning up the spill and waste resulting from the spill or spill response actions;
- (g) protecting the aspects of the environment, human health and infrastructure
 - (i) referred to in section 5 (1) (g) or (2) (c) [*spill response planning map*], or
 - (ii) identified in the assessment referred to in section 4 (1) (c) [*hazard assessment*] as at risk of being adversely affected by a spill.

Additional information required in the spill response procedures section of SCPs includes:

- Identifying the actions that the first person on scene (e.g. truck driver) must do to initiate response actions
- Outlining situations that would require the establishment of the ICP
- Cross referencing the human health and safety section of the SCP the inclusion of for public safety measures and for PPE requirements of responders
- Outlining actions to mitigate the spill impacts for any environment where a regulated substance could be spilled (a river, road, field)
 - These actions should be consistent with industry established best practices
 - Information to fulfil this requirement may be drawn from the SDS, industry associations, spill response professionals, and the NIOSH Pocket Guide to Chemical Hazards
 - Cross referencing the waste management procedure

6.11 Training

All responders listed by regulated persons in SCPs must have current and applicable training in order to respond to a spill incident. Spill response training should be conducted at all levels within the regulated person's organization, including members of senior management. Section 13 of the SCPR outlines the training requirements for regulated persons and their contractors and how training considerations are to be included within SCPs and section 13 (2) of the SCPR defines individuals who must undertake training:

- (3) Subsection (1) (b) applies in relation to the following individuals:
- (a) if the regulated person is an individual, the regulated person;
 - (b) an individual employed or retained by the regulated person.

SCPs must also outline how training will be completed. If qualified contractors are identified to fulfill particular functions, regulated persons must ensure that training of the contractors is completed and appropriately documented. It is recommended that regulated persons obtain training records and/or certifications from qualified contractors and participate in exercises with them. Section 9 (c) of the SRRR defines the requirements for maintaining records of training.

Training descriptions must be provided as outlined in section 13 (1) (a) of the SCPR:

The spill contingency plan must describe the training that will be provided to the following individuals on the following topics and how frequently that training will be provided:

(a) each individual who holds a job title identified for the purposes of section 7 (1) (a) or (2) (a) [*incident command system*], on the individual's role in the incident command system

The requirement to implement the ICS is outlined in section 7 of the SCPR. Section 7 of the SCPR includes a description of the ICS roles that must be designated and filled in the event of a spill. Regulated persons must describe internal and external training that enables them to meet the identified ICS roles as outlined in section 7 of the SCPR. The SCP must describe how regulated persons intend to incorporate drills and exercises into their training program. The training section of SCPs must include a mechanism to track the position specific training required, the courses and/or training completed, and how often courses and/or training are required. An example of how to include this information in SCPs is illustrated in Table 15 below.

Table 15: Example of training requirements by Incident Command System position

Position/subject Area	Training/course/exercise	Frequency	Notes
Incident Commander	ICS 400	Once	
	Participates in an operations-based exercise	1 x per year	
	Participate in a discussion based exercise	1 x per year	
	Internal media relations training	1 x per year	
	Internal communication procedure training	1 x per year	Training for communication tools used/available during a spill response: radio, radio frequencies, satellite phones, etc. Training for internal notification procedures
	Internal spill procedure training	1 x per year	Notification system testing 2 x per year

Liaison Officer	ICS 100, 200, 300	Once	
	Internal communication procedure training	1 x per year	
	Internal spill procedure training	1 x per year	Notification system testing 2 x per year
	Participate in a discussion based exercise	1 x per year	

Note: SCPs must identify training for spill response procedures to meet the requirements of sections 12 (2), (3), and (4) of the SCPR.

Regulated persons must ensure that they meet the testing SCP requirements as outlined in section 15 of the SCPR; section 15 (2) (b) defines the requirements for individuals that must participate tests. Further guidance on testing SCPs is available in the *Testing Spill Contingency Plans* guidance document.

6.11.1 Section specific training

The SCPR outlines that training requirements, the frequency that training will be provided, and how the training will be documented must be detailed in SCPs for those that are listed to act in any of the specific sections listed below in the event of a spill.

Section specific training must also be identified as outlined in section 13 (1) (b) of the SCPR:

The spill contingency plan must describe the training that will be provided to the following individuals on the following topics and how frequently that training will be provided:

- (b) each individual referred to in subsection (2) who might be involved in responding to a spill, on the procedures, referred to in the following sections, that are relevant to the involvement of that individual:
 - (i) section 8 [*human health and safety*];
 - (ii) section 9 [*communication procedures*];
 - (iii) section 10 [*waste management*];
 - (iv) section 11 [*wildlife*];
 - (v) section 12 [*spill response procedures*].

Guidance on how to include information on training for specific sections in SCPs is provided below; these are not comprehensive lists of training requirements for each function.

Human health and safety

- Training on the use of PPE
- Training on safe working distances for regulated substances being transported

- Training on how to control site access and ensure safety at locations where spill response actions are occurring

Communication procedures

- Training on how spill response personnel will communicate during an incident
 - This may include training in specific communication devices such as radios, cellular phones, and/or satellite phones
- For pipeline and railway transporters, training on how to provide information to the public and how to gather information from the public

Waste management

- Training on how to transport waste
- Training and licencing for the transportation of hazardous waste as outlined in EMA

Wildlife

- Training on how to deter wildlife at a spill site
- Training on how to tend to oiled wildlife

Spill response procedures

- Training on how to conduct an initial spill assessment
- Training on who to notify about a spill and how
- Training on how to monitor and document the spill and actions taken during a spill event

7. Maintaining Spill Contingency Plans

Section 14 of the SCPR outlines that SCPs must be reviewed and updated annually and within one month of any changes to components outlined in the SCPR. Failure to update the SCP could lead to a delayed response. Any changes to the SCP must be communicated to and understood by all individuals that are listed in the SCP, including each driver for highway transporters. The SCP must be reviewed at least once each calendar year to check for and correct any deficiencies or altered components. For example, changes to notification procedures, contracts, or routes by which the regulated substance is transported. A log identifying the frequency of updates to the SCP and what changes were made, if any, must be kept and should be attached to the SCP.

It is recommended to also conduct a review every 3 – 5 years to ensure best practices and new technologies are being incorporated into SCPs.

Reviewing and updating of the SCP must be done as outlined in section 14 (1) of the SCPR:

(1) For the purposes of section 91.11 (1) (b) [*regulated persons – spill contingency planning*] of the Act, a regulated person who has a spill contingency plan must, at the frequency required by subsection (2) of this section, review the plan and make updates, if necessary, to

- (a) correct deficiencies in the plan, or
- (b) adjust the plan to reflect changed circumstances.

(2) The regulated person must review and update the spill contingency plan

- (a) at least once each calendar year, and
- (b) within one month after any of the following events occur:
 - (i) a change in the regulated substances, or the quantities of the regulated substances, transported by the regulated person that could result in a material increase to the magnitude of the risk referred to in section 91.11 (2) of the Act;
 - (ii) a vacancy in one of the jobs that is noted by title in the plan for the purposes of section 7 (1) (a) or (2) (a) [*incident command system*];
 - (iii) spill response equipment noted in the plan is no longer available.

The SCP must also be reviewed and updated within one month after any of the following changes occurs:

- Any change to titles, names, and/or contact information for individuals listed in the SCP
 - This section must be updated to ensure that, in the event of a spill, all required roles are filled
- A change in the availability of required response equipment
 - If specific pieces of equipment are unavailable, have been moved, or new equipment is available

8. Record keeping and reports

Section 9 of the SPRRR outlines that regulated persons must keep records for five years related to employee training and the development and testing of the SCP. Records must be made available to a director upon request. Records on the following components of SCPs must be kept:

The regulated person must ensure records relating to SCP are kept as outlined in section 9 of the SPRRR:

- (1) A regulated person who has a spill contingency plan must maintain the following records:
 - (a) a record of changes to the plan that shows, for each change, the date the change was made and the reason for the change;
 - (b) a record in relation to the spill response equipment listed in the plan that shows
 - (i) the dates on which each item on the list was inspected and whether the item was ready for use on each date, and
 - (ii) the dates on which each item on the list was maintained or repaired;
 - (c) a record of the training referred to in section 13 (1) [*training*] of the Spill Contingency Planning Regulation that includes the following for each course of training provided:
 - (i) the dates of the training;
 - (ii) a description of the training;
 - (iii) the person who provided the training;

- (iv) the roles and procedures, as applicable, on which the training was provided;
 - (v) the names and job titles of the individuals to whom the training was provided;
- (d) a record of the tests conducted by the regulated person for the purposes of section 15 *[testing spill contingency plans]* of the Spill Contingency Planning Regulation that shows the following for each test:
- (i) the date of the test;
 - (ii) a description of the test;
 - (iii) whether the test is a discussion-based test, an operations-based test or worst-case-scenario test;
 - (iv) the components of the spill contingency plan tested;
 - (v) the records generated by the individuals who participated in the test;
 - (vi) an evaluation of the components tested that identifies any deficiencies in the components revealed by the test or changes to the components suggested by the test;
 - (vii) if applicable, the changes made to the spill contingency plan in response to the test and the dates on which those changes were made.
- (2) The regulated person must keep each record referred to in subsection (1) for at least 5 years.

The following records must be kept by regulated persons for a period of five years, as per section 9 of the SPRRR:

- Changes to SCPs
 - Each change is listed with a corresponding date and reason for the change
- Spill response equipment
 - Dates when each item listed in the SCP was inspected and if it was ready for use on each date
 - Dates when each item on the list was maintained or repaired
- Training
 - Date of training
 - Description of training, including roles and procedures trained for
 - Name of person who provided training
 - Names and job titles of the individuals to whom the training was provided
- Tests of the SCP, for each testing event:
 - Date of test
 - Description of test
 - Whether test was discussion-based, operations-based or a worst-case-scenario
 - Components of the SCP tested
 - Records generated by the individuals who participated in the test
 - Evaluation of the components tested that identifies any deficiencies in the components revealed by the test or changes to the components suggested by the test
- If applicable, any changes made to the spill contingency plan in response to the test and the dates on which those changes were made

Additional information on record keeping can be found in the *Testing Spill Contingency Plans* guidance document located on the EEP website.

9. Providing information to a director

In accordance with section 91.11 (5) of EMA, a director can order a regulated person to submit a copy of the SCP, provide details on the regulated person's operations and substances in their possession, and provide a declaration related to the regulated person's spill preparedness and response capabilities. A director may order a SCP to be amended and resubmitted or tested in a prescribed time and manner.

Appendix 1 Declaration the Spill Contingency Plan is true, accurate, and complete¹

As an authorized representative of the regulated person, I declare that a spill contingency plan (SCP) has been prepared for the substance(s) for which the regulated person is defined as a regulated person under the *Environmental Management Act 2003*. I declare that the SCP is true, accurate, and complete, and that Tables 1 and 2 below are complete and contain accurate information.

Regulated Person²:

_____	_____	_____
Legal company name	Surname, given name	Title
_____		_____
Signature		Date (day-month-year)

Address		

Designated contact³:

_____	_____	_____
Legal company name	Surname, given name	Title
_____		_____
Email address		Phone number

Address		

¹ This declaration should be attached to the front of all copies of the spill contingency plan, including required sections in motor vehicles

² A director, officer, or partner as appropriate as outlined in section 3 (b) of the SCPR

³ This is an individual who can be contacted directly regarding the SCP

Table 1: Page numbers in the regulated person’s Spill Contingency Plan where information that satisfies the requirements of the Spill Contingency Planning Regulation is available

Section of the SCPR	Page number(s) in SCP
Section 3 Contents of the SCP	
Section 4 Hazard assessment	
Section 5 Spill response planning map	
Section 6 Equipment, personnel, and other resources	
Section 7 Incident Command System	
Section 8 Human health and safety	
Section 9 Communication procedures	
Section 10 Waste management	
Section 11 Wildlife	
Section 12 Spill response procedures	
Section 13 Training	

Note: multiple page numbers are required if content is located on more than one page in the SCP.

Table 2: List of substances that the spill contingency plan is capable of addressing

Common name	Classification	Quantity in liters (worst-case)

Note: items to be listed as they are in the schedule in the Spill Preparedness, Response and Recovery Regulation.

Appendix 2 Waste management plan template

Regulated person identifier	Company name, site location: British Columbia Generator number (BCG number): Existing permits or operational licences	
Criteria for waste management plan implementation	Under what circumstances will waste management procedures be implemented and under who's authority?	
People/positions	List the person, position, and contact information of the person responsible for implementing the waste management procedures	Name, position, and contact information for an alternate
Pre and post Incident or Unified Command reporting structure	Pre Incident or Unified Command reporting structure: Company name, position, contact Information:	
	Post Incident or Unified Command reporting structure: ICS position	
Waste collection/recovery process:	State collection and bulking points: Example: Waste collected in bags placed at 100 metre intervals (bulking points) along the beach → bags collected by landing craft → placed at staging site X → removed by land transport to → disposal facility* <i>*Ensure that transporters and disposal facilities are authorized under EMA and that a B.C. Waste Generator Registration Number (BCG number) is either in place or is issued for the response effort</i>	
Map showing the waste management process	Attach map Map must include: <ul style="list-style-type: none"> • Location of all waste collection sites • Location of waste staging sites • Land and water access to the waste collection and waste staging areas 	
Collection and staging area preparation procedures and equipment	Beach collection sites: <ul style="list-style-type: none"> • Usually minimal preparation • Waste would not remain here over night 	Staging Areas: <ul style="list-style-type: none"> • Liners, berms, covers, security • Equipment (bins, totes, sacs, etc.)
	Include labels for works/bags (e.g. contaminated solids or clean vegetation)	
Waste segregation procedures	To consider: <ul style="list-style-type: none"> • Hazardous or contaminated solids/liquids • Contaminated organic and inorganic waste • Non-contaminate waste • Grey water/kitchen waste, etc. 	
Waste characterization procedures	Details of field assessment: <ul style="list-style-type: none"> • Details of how field workers are expected to segregate the waste collected 	Details of laboratory assessment: <ul style="list-style-type: none"> • Generic approach only, presence/absence
Waste recording and reporting procedures	Waste recording and reporting should comply with the ICS reporting structure and should follow the waste segregation/characterization approach	

Regulated person identifier	Company name, site location: British Columbia Generator number (BCG number): Existing permits or operational licences			
Staging site security details	If security is required, what process is in place?			
Equipment and service sourcing	List company names and the equipment and/or services that the responsible person intends to provide:			
Service providers authorizations*	Name of waste transporter	Licence to Transport Number	Name of disposal company	Registration Number
*Please attach copies of the Licence to Transport and the operational plan approvals				
<u>Statement of assurance:</u> Waste management and storage will occur only in accordance with the <i>Environmental Management Act 2003</i> , the Hazardous Waste Regulation, and all other applicable statutes.				
<u>Attachments:</u> Attach authorizations or exemptions that have been provided by British Columbia Ministry of Environment & Climate Strategy officials or other governing bodies				

Appendix 3 Initial spill reporting requirements

Report information	Description
1. Contact information of individual making the report	First and last name, phone number, and email address
2. Contact information of the responsible person	First and last name of contact, phone number, company name (if applicable), mailing address, and email address
3. Contact information of the owner of the substance or thing spilled	First and last name of contact, phone number, company name (if applicable), mailing address, and email address
4. Location, date, and time of spill	Provide as much information about the location as possible (including: general directions, description of how to approach the area, latitude and longitude if available, street address, and date and time in 24 hour clock format)
5. Description of the spill site and surrounding area	The receiving environment of the spilled material (for example, the area is wooded and the ground is soft or a sensitive riparian area that is at risk of impact)
6. A description of the source of the spill	The container from which the material spilled (for example, above or below ground storage tank, tanker truck, pipeline, or railway car)
7. Type and volume of the substance spilled	An estimate of the amount of product spilled and a description of the product type, including product name and United Nations (UN) number and SDS qualities (for example, diesel, UN 1202, 50 liters, flammable). If unknown, a description of the spill (for example, sheen or slick approximately 20 meters by 20 meters)
8. Cause and adverse impacts of the spill	The circumstances leading to the spill; this is the immediate cause as well as any contributing factors. May be a combination of an activity and the incident (for example, motor vehicle accident, derailment, equipment failure, fire, human error, or unknown)
9. Details of the actions taken or proposed	Provide details of response actions (for example, what steps have been taken to contain the spill, responders that have been deployed, and when they will arrive on site)
10. The details of further action contemplated or required	Provide details regarding next steps (including response actions, deployment of additional resources, and monitoring activities)
11. The names of government agencies at the spill site	Any persons, health authorities, government, or Indigenous community agencies
12. The names of other persons or government agencies advised about the spill	Any persons, health authorities, federal government, local government, or Indigenous community agencies