

Province of British Columbia

# Land-Based Spill Preparedness and Response in B.C.

**Proposed Regulations for the Environmental Management Act, 2016 – Policy  
Update**

Ministry of Environment  
1/20/2017

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# 1. Introduction

In 2015, the Province announced development and implementation of a world-leading Spill Preparedness and Response Regime for British Columbia (the Regime). The Regime will enhance preparedness, response, and recovery actions taken for all types of spills that cause pollution, harm the environment, or threaten public safety, regardless of their source. The Regime will be implemented over time by introducing different elements in a stepwise fashion. In 2016, the B.C. Legislative Assembly passed legislative changes to the *Environmental Management Act, 2016* (the Act) and received Royal Assent. The amendments to the Act enable new regulations for preparedness, response and recovery. This policy update outlines the first set of regulations to be brought forward in early 2017; however, it does not include any information on other elements of the Regime.

To receive input on the development of new regulations for the Regime, the Ministry engaged First Nations, several industry sectors (pipeline, rail, trucking, chemical, forestry, oil, and gas), response contractors and local governments. The Ministry released and received public input on three intentions papers and conducted a five-phase public engagement campaign for the most recent third intentions paper<sup>1</sup>. Engagement on the most recent paper included an online discussion portal, a two-day Symposium, seven regional meetings with First Nations, three technical working groups, and a final engagement summary report<sup>2</sup>. The intentions papers, reports, and related research papers are available online for public review in the Environmental Emergency Program section of the government website ([www.gov.bc.ca/spillresponse](http://www.gov.bc.ca/spillresponse)).

The engagement process reiterated the importance of avoiding unnecessary duplication in order to reduce costs, improve efficiencies, and more easily understand and comply with new requirements. As a result, the Ministry will use a phase-in approach to introducing new regulations in order to allow more time for consultation with experts and impacted groups as well as to conduct further research designed to predict and prevent negative unintended consequences.

This policy update outlines the first phase of regulations and includes:

- Definitions for Regulated and Responsible Persons;
- New requirements for preparedness (spill contingency plans and testing plans);
- New spill reporting response requirements; and
- New requirements for recovery plans.

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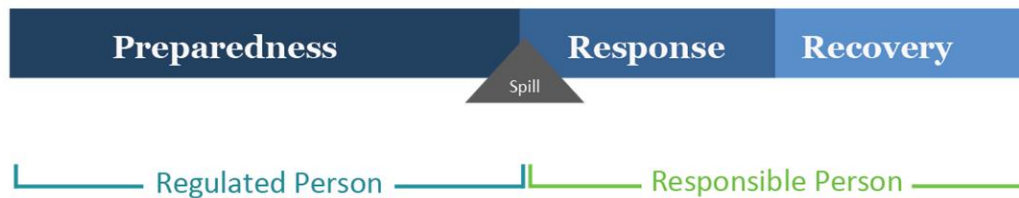
<sup>1</sup> Spill Preparedness and Response in BC, Proposed Amendments to the Environmental Management Act and Proposed Regulations

<sup>2</sup> Public Engagement Summary 2016, Land Based Spill Preparedness and Response in British Columbia

## 2. Preparedness

*Preparedness is the pillar of emergency management during which action is taken to ensure readiness for emergency response and recovery. It includes planning, resource planning, volunteer management, training, exercises, public/stakeholder education, maintenance and continuous improvement.*

**Figure 1: Regulated and Responsible Persons**



As shown in Figure 1, preparedness requirements apply to the regulated person; whereas response and recovery requirements apply the responsible person.

The definition and new requirements of the regulated person are described below; the definition and new requirements for the responsible person are described further in sections three and four.

### 2.1 Regulated Persons

The amendments to the Act enable the Lieutenant Governor in Council (LGIC) to set the threshold (i.e. the prescribed substances and prescribed quantities) for who is required to meet the new preparedness requirements. As defined by the amendments, a regulated person means:

- a) A person who, in the course of operating an industry, trade or business, has possession, charge or control of a prescribed substance in prescribed quantities, or
- b) A person referred to in paragraph (a) whose employee, under the person's direction, has possession, charge or control of a prescribed substance in prescribed quantities.

#### New Preparedness Requirements for Regulated Persons

Regulated persons are required to:

- Prepare a spill contingency plan;
- Test the spill contingency plan through drills and exercises; and
- Maintain records related to preparedness.

In the next regulatory phase, the regulated person may also be required to prepare Geographic Response Plans, if ordered to do so.

### First Set of Prescribed Substances and Prescribed Quantities

The first set of prescribed substances listed in the regulation is liquid petroleum products. The Ministry will expand the list of prescribed substance over time. The table below provides a general description of the substances. Specific prescribed substances are listed in [Appendix 1 of this document](#).

Regulated Substances	Prescribed Quantities
Liquid Petroleum Products: <ul style="list-style-type: none"> <li>• Aviation fuel</li> <li>• Bunker fuel</li> <li>• Crude oil- sweet (including diluted bitumen)</li> <li>• Crude oil- sour (including diluted bitumen)</li> <li>• Diesel fuel</li> <li>• Gasoline</li> <li>• Kerosene</li> <li>• Petroleum distillates</li> </ul>	The prescribed substance list will apply to the volumes that meet or exceed these thresholds: <ul style="list-style-type: none"> <li>• 10,000 litres of a prescribed substance transported by rail or highways<sup>3</sup></li> <li>• Any quantity of a prescribed substance transported by pipeline used for oil and gas activities.</li> </ul>

The Ministry acknowledges that a spill of any size has the potential to cause damage to the environment. These volumes are a starting point for planning and may be amended in the future if it is determined that operations transporting amounts at less than 10,000 litres are failing to respond effectively to spills.

### First Applicable Sectors

The initial prescribed substance list will apply only to substances transported on highways, over rail lines and in pipelines. It also applies to substances stored in tank farms to support transportation along the pipeline. Regulating these substances and sectors brings the majority of operations that transport liquid petroleum products in the Province into compliance with the new Regime.

### BC Oil and Gas Commission

Provincially regulated oil and gas activities and related activities, including pipelines and associated infrastructure within British Columbia are regulated by the B.C. Oil and Gas Commission (Commission) through the *Oil and Gas Activities Act* (OGAA), the Emergency Management Regulation and the Pipeline Regulation. The Commission, under the policy oversight of the Ministry of Natural Gas Development, is responsible for the development and maintenance of the regulatory framework which applies to spill preparedness, reporting and response.

<sup>3</sup> As defined by the [Transportation Act](#)

The intent of the B.C. government is for the Commission to remain the “one window” for all provincially regulated oil and gas activities. The Ministry and the Commission have been working closely to ensure that where practical, the new requirements of the Regime and the regulatory framework of the Commission will be in line with each other. This means that parties regulated by the Commission and now considered a regulated or responsible person as part of the Regime will continue to interact primarily with the Commission with respect to preparedness and response to fulfill the regulatory requirements of both.

In each of the relevant sections throughout this document, explanations are given of how regulated persons that are already regulated under the Commission will be expected to fulfill applicable regulatory requirements.

Following the phase-in approach, the list of substances and applicable sectors is intended to gradually expand to ensure effective spill response throughout BC. For example, as well as operations *transporting* substances, *fixed* facility operations that use and store prescribed substances may soon also be defined as regulated persons.

### Who Is Not A Regulated Person?

A person in possession of prescribed substances at prescribed quantities is not a regulated person if the substance is:

- In an aircraft;
- Stored or being transported fully within an airport;
- In marine vessels or being stored or transported in the marine environment;
- In watercrafts on rivers and lakes;
- Used for propulsion (e.g., fuel used to power an engine);
- Being stored at a site for use in a process solely within the property of that site; and
- Stored or transported exclusively within federal lands, which includes airports, military installations, First Nations reserves and national parks

## 2.2 Spill Contingency Plans

A fundamental intention of the Regime is to ensure all regulated persons, regardless of their sector, are prepared for a spill anywhere in BC. Through spill contingency planning, the regulated person is required to assess the risks to the environment, human health and infrastructure in the event of a spill. The regulated person ensures that appropriate equipment is available to respond to a spill and that they have trained and practiced response personnel available. “Regulated persons” under the Regime will be required to have completed a spill contingency plan by spring of 2018.

Provincially regulated oil and gas operations are required to develop and include spill contingency plans as part of their Emergency Response Programs and Contingency Response Plans currently required

under OGAA, and submit those plans to the Commission. The Commission will work to ensure that by spring of 2018, the requirements for spill contingency plans within the Emergency Management Regulations meet or exceed the requirements in these new regulations. Provincially regulated oil and gas operations will continue to submit their plans to the Commission pursuant to the requirements of the *Oil and Gas Activities Act* and its associated regulations. Those plans will contain requirements that meet or exceed the requirements of the Regime as described in this section. The Commission will continue to oversee these plans and will share them with the Ministry to ensure that regulatory oversight and Provincial spill response are coordinated.

## New Requirements for Spill Contingency Plans

A regulated person will be required to complete a spill contingency plan that:

- Includes prescribed content (Appendix 2);
- Identifies a worst case volume spill using prescribed definitions (Table 1) to ensure preparedness for that volume of a spill;
- Is updated annually or sooner if significant changes occur; and
- Is completed within 12 months of the regulation coming into force.

## Prescribed Spill Contingency Plan Content and Plan Updates

The spill contingency plan content requirements are described in [Appendix 2](#). There are different requirements for businesses that transport on highways than for pipeline and rail companies because of the different nature of their operations.

Regulated persons must review spill contingency plans on an annual basis. A change to critical information, such as loss of equipment, personnel, or a change in planned hazards, must be updated in the plan within one month to ensure that responders have the correct information for drills and exercises, and are prepared for real-world spill response situations.

## Prescribed Worst-Case Spill Volume Definitions

Regulated persons will be required to plan for a worst-case spill that is at a predetermined volume level using the definitions in Table 1. The method used to calculate the worst-case volume must be documented in the spill contingency plan. The spill contingency plan is to reflect scenarios, including adverse weather conditions, using the worst-case volume.

Table 1: Worst-Case Volume Definitions by Sector

Sector	Definition of the Worst-Case Volume
<b>Pipelines</b>	The greatest volume of the following: <ol style="list-style-type: none"> <li>1. The pipeline's maximum time to detect the release, plus the maximum shutdown response time multiplied by the maximum flow rate per hour, plus the largest line drainage volume after shutdown;</li> <li>2. The maximum volume of historic spill from the pipeline; and</li> <li>3. The volume of the largest single breakout tank or battery of breakout tanks without a single secondary containment system.</li> </ol>
<b>Rail</b>	The sudden loss of the prescribed substance from either 1 railcar or 20 percent of the railcars carrying prescribed substance, whichever is greater, transported in a single train.
<b>Trucking</b>	The sudden loss of the entire contents of the truck or trailer.

## 2.3 Testing Spill Contingency Plans through Drills and Exercises

A structured and scheduled spill exercise program is the foundation for continuous improvement and validation of the spill contingency plan. The purpose of drills and exercises is to ensure that all plan components function to provide prompt and proper removal of the spilled substance and minimize impact from a variety of spill sizes.

Regulated persons must document drills and exercises and have records available for review at the request of the Ministry. All worst case or full-scale exercises must be carried out in British Columbia to ensure the impacts of specific geographies and locations are considered.

Drills and exercises conducted by parties to meet the requirements of the OGAA will also satisfy the requirements of this regulation. The Commission will continue to oversee drills and exercises for this group of regulated persons.

### New Requirements for Testing Plans

The regulated person must:

- Use the prescribed testing formats according to the prescribed frequency;
- Test all prescribed components of the spill contingency plan over a three year period; and
- Maintain thorough records of each test process, results, and plan updates for five years.

### Prescribed Testing Formats

The British Columbia Emergency Management System is the standard used to define drills, exercise types and definitions. The current standards are as follows (Table 2):





**Table 2: Prescribed Spill Contingency Plan Testing Formats**

Type	Description
<b>Discussion based exercise</b>	Seminars, workshops, table top and immersive simulations to bring key personnel together to test the activation of a particular aspect of a contingency plan in a simulated spill scenario. Participants may use pre-programmed simulations that can be completed in a conference room (e.g. communications, scaling up an incident command post, responder call out).
<b>Operations based drills and exercises</b>	Deployment or functional drills and exercises that test one, many, or all components of a plan by bringing key personnel together to deploy a specific aspect of the contingency plan in a simulated spill scenario (e.g. the deployment of spill response equipment).
<b>Worst-case/ full-scale exercise</b>	Bring key personnel together to test the entire deployment and/or use of equipment, personnel and procedures in the field as if the worst-case spill were occurring at a given place and time.

### Prescribed Testing Frequency

Regulated persons must develop a spill contingency plan within 12 months of the regulation coming into effect. Annual testing of the plan is required. All components of the plan are to be tested over a three-year period. Tables 3 and 4 describe the frequency for each prescribed testing format for regulated persons in the pipeline, rail and trucking sectors. The regulated person must have concluded the first year of testing within 12 months of completing the spill contingency plan.

Provincially regulated oil and gas operations already subject to contingency planning and exercise requirements under OGAA will adhere to their current schedule of updates and exercises.

**Table 3: Frequency of Drills and Exercises for Pipeline and Rail**

Type	Frequency
<b>Discussion based exercise</b>	Once a year, except in the year when a full-scale exercise is held
<b>Operations based drills and exercises</b>	Once a year, except in the year when a full-scale exercise is held
<b>Worst case or full-scale exercise</b>	Once every three years

**Table 4: Frequency of Drills and Exercises for Trucking**

Type	Frequency
<b>Discussion based and operation based drill or exercise</b>	Once a year for the components for which the company has an active role.

## Prescribed Components of a Spill Contingency Plan to be Tested Every Three Years

The regulated person must test each component in Table 5 at least every three years through either discussion-based exercises, operations-based drills and exercises, or worst-case/ full-scale exercises.

**Table 5: Prescribed Spill Contingency Plan Components to be Tested Every Three Years**

Component	Description
<b>For Spill Response Procedure</b>	
<b>Notifications</b>	Test the notifications procedures to ensure the information contained is effective and accurate.
<b>Staff mobilization</b>	Demonstrate the ability to assemble the spill response team identified in the plan.
<b>Incident Command System (“ICS”)</b>	Confirm the ability to operate within the response management system described in the plan and/or identify and establish the incident command post if necessary. This includes demonstration of the ICS staffing and process identified in the plan.
<b>Source control</b>	Demonstrate the ability to control and stop the spill at the source.
<b>Assessment</b>	Demonstrate the ability to provide an initial assessment of the spill and provide continuing assessments of the effectiveness of the tactical operations.
<b>Containment</b>	Demonstrate the ability to contain the spill at the source or in various locations for recovery operations.
<b>Removal</b>	Demonstrate the ability to collect, mitigate the impact, and remove the spilled product. Includes mitigation and removal activities, e.g., dispersant use, in situ burn use, bioremediation use, wildlife management and recovery.
<b>Protection</b>	Demonstrate the ability to protect the sensitive areas identified in the plan.
<b>Documentation</b>	Demonstrate the ability to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.
<b>Communications</b>	Demonstrate the ability to establish an effective communications system throughout the scope of the plan (equipment and resources as well as the communications plan).
<b>For Waste Management</b>	
<b>Disposal</b>	Demonstrate the ability to dispose of the recovered material and contaminated debris.
<b>Transportation</b>	Demonstrate the ability to provide effective multimode transportation.
<b>For Equipment and Resources</b>	
<b>Personnel support</b>	Demonstrate the ability to provide the necessary logistical support of all personnel associated with the response.
<b>Equipment maintenance and support</b>	Demonstrate the ability to maintain and support all equipment associated with the response.
<b>Procurement</b>	Demonstrate the ability to establish an effective procurement system.

## Record-keeping and Reporting

The regulated person must maintain records demonstrating spill preparedness for five years, including:

- Records relating to the training completed by personnel;
- Records of equipment inspection and maintenance;
- Records of any third party service agreements; and
- Records relating to completion of and evaluation of drills and exercises.



## 3. Response

*Response encompasses the activities that address the direct effects of an incident and are designed to limit personal injury, property damage, and environmental damage.*

The response phase begins as soon as a spill occurs and continues until all spill response requirements are achieved (Table 6). Recovery and remediation actions, such as sampling and monitoring that are often initiated during the spill response phase may continue beyond the end of the spill response phase.

**Table 6: Defining the end of the spill response phase for the purposes of reporting requirements**

Public Safety	Environmental Care
Evacuation and other spill related notices are rescinded	No imminent risk of a spill
Travel restrictions are removed, including no fly or marine access notices	Source no longer spilling
Response personnel, equipment and resources are no longer on-site (excluding equipment for restoration or remediation)	Source removed to an assessed net environmental benefit level
The ICS personnel are no longer active	Spilled waste no longer at the site and accepted at a facility
	Impacted wildlife are removed, contained, recovered or being rehabilitated

### 3.1 Responsible Person

As illustrated in Figure 1, the *regulated person* must comply with new preparedness requirements. When a spill occurs, the new requirements for response and recovery apply to the spiller, or *responsible person*.

#### New Requirements Defining Responsible Person

A responsible person:

*Is a person who has possession, charge or control of a substance or thing when a spill of the substance or thing occurs or is at imminent risk of occurring*

As stipulated by the amendments to the Act, a responsible person has the duty to:

- Immediately report a spill after discovery in accordance with the regulations.
- Provide information regarding response activities at the request of an officer.

- Provide adequate personnel and resources to properly address the spill, including implementing an incident command system in the prescribed time and manner.
- Take all necessary actions to address the spill, including:
  - Assess, monitor and prevent the threat or hazard resulting from the spill;
  - Stabilize, contain, remove and clean up the spill;
  - Identify and evaluate both immediate and long term risks and threats to the environment, human health and infrastructure and take appropriate actions to mitigate all.

Should a responsible person's action be deemed insufficient by a delegated authority, a responsible person may be required to take specified spill response actions based on orders from a delegated authority. A responsible person may also be required to prepare a recovery plan at the request of a delegated authority.

## 3.2 Spill Reporting Requirements

Accurate and up-to-date information is essential to the oversight of spill response efforts. The new reporting requirements will require the responsible person to immediately provide an initial verbal report, ongoing updates or corrections as applicable to the verbal report, an end of spill report and, for significant spill incident, a lessons learned report. In addition, the new regulation will expand upon the Spill Reporting Regulation to ensure spills that occur near or on water are also reported.

Responsible persons regulated by the Commission will continue to provide spill reporting information to the Commission. The Commission will work to ensure the spill reporting requirements under the OGAA meet or exceed that of the new Regime as described below.

### New Requirements for Spill Reporting

The responsible person must:

- Immediately report the spill to 1-800-663-3456 if:
  - The spill is of a prescribed substance (Column 1 of Appendix 3) and at a prescribed amount (equal to or greater than the amount in the corresponding Column 2 of Appendix 3); and
  - The release or discharge into the environment was not authorized under the *Environmental Management Act*.
  - Unless otherwise directed by a delegated authority, provide an end of spill report within 30 days of the last day of the spill response phase that includes the prescribed report content (Table 7).
  - For those spill responses lasting longer than 30 days, provide update(s) a minimum of every 30 days and frequently enough to ensure the prescribed content reported to the Ministry (Table 7) is accurate and complete.

- Provide a lessons learned report within 6 months of the last day of the spill response phase, if the spill meets the prescribed written report criteria (Table 8).

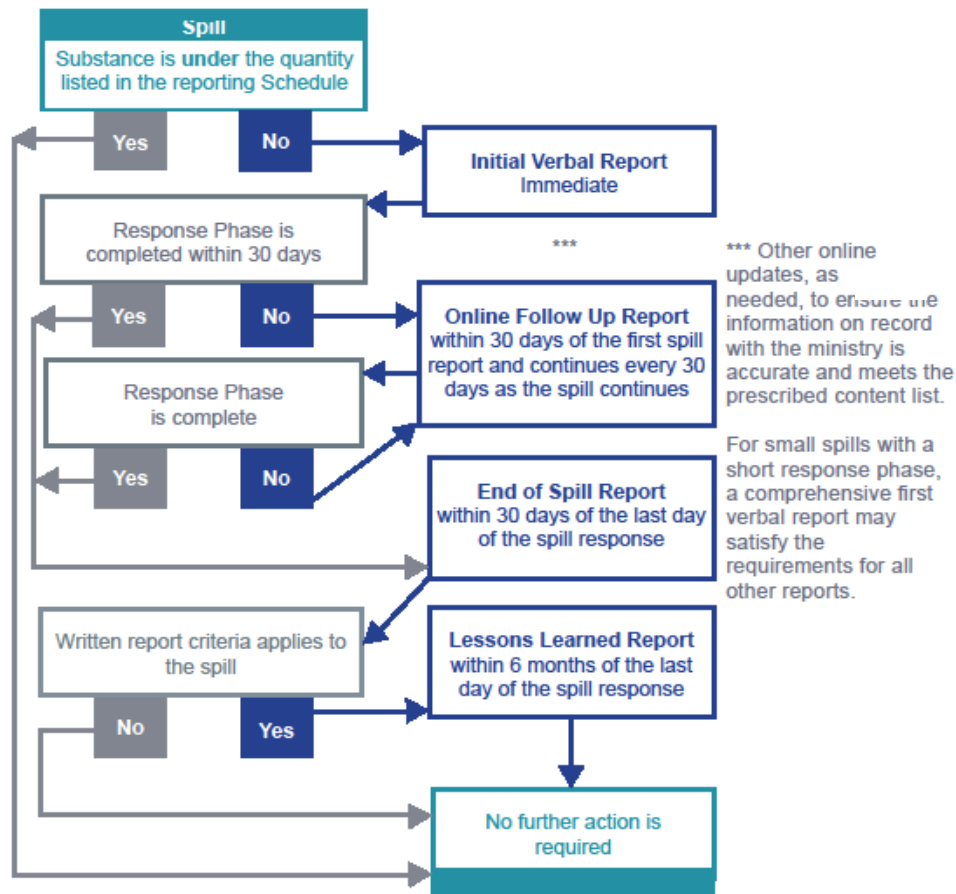
NOTE: A spill reporting flow chart is provided in Figure 2.

### Spills Requiring Immediate Verbal Reports

If a spill meets the criteria of the Spill Reporting Regulation Schedule ([Appendix 3](#)), a responsible person must immediately report the spill and provide as much of the required information as possible at the time. Ongoing updates or corrections to the initial report are to be provided as more information becomes available.

The current list of prescribed substances and quantities of the Spill Reporting Regulation will be retained; however, the Schedule will be changing. If any prescribed substance is spilled to a body of water (regardless of the quantity of that substance) the spill must also be reported. Note that the prescribed substances and quantities in Appendix 3 are *different* from those that define a regulated person.

Figure 2: New Requirements for Spill Reporting Flow Chart



## Prescribed Content of Spill Reports

The information required in spill reports is described in Table 7. Responsible persons must note in reports if components of Table 7 are not relevant to a specific spill.

- The *initial verbal report* is given at the time the spill occurs or is detected.
- The *end of spill report* is required 30 days from the last day of the spill response. *Follow-up report(s)* are required every 30 days as the spill continues.
- A *lessons learned report* may be required for a spill that meets the criteria outlined in Table 8.

**Table 7: Content of Spill Report**

Item #	Information (as it becomes available) to include in the initial, follow-up and end of spill report:
1	Reporting person's name and telephone number.
2	Name, telephone number and address of the responsible person.
3	Name, telephone number and address of the owner of the substance.
4	Date, time and duration of the spill.
5	Physical location of the spill (latitude and longitude).
6	Type of substance spilled and the quantity spilled.
7	Description of the type of container from which the substance was spilled.
8	Description of the source of the spill including facility, vehicle, train, pipeline.
9	Description of the activity at the time of the spill (i.e., transfer of cargo, fuelling, cleaning, maintenance).
10	Type of incident leading to the spill (i.e., tank rupture, overfill, collision, roll-over, derailment, fire, explosion).
11	Description of the cause of the spill (i.e., human error, external conditions, organizational or management failure).
12	Effect of the spill on people, the number people evacuated, number of deaths or injuries.
13	Effect of spill on the environment including: <ul style="list-style-type: none"> <li>• spill location and of the area surrounding the spill</li> <li>• affected size of the area impacted by the spill at the end of the response phase</li> <li>• type of area affected</li> <li>• affected resources including body of water, flora, fauna and animal, fish and plant habitat</li> </ul>
14	Map of the physical location of incident and photographs of incident site and impacted areas.
15	The names of agencies on the scene.
16	The names of other persons or agencies advised concerning the spill.
17	Date and details of response actions to be completed or completed including containment, collection and clean-up.
18	Details on the amount of the spilled substance recovered, removed or disposed of. If completed, the date, method of disposal of spilled substance and clean up materials and locations.
19	Results of monitoring or a summary monitoring report, if applicable.
20	Next steps to be completed for the next 30 days, if the response is longer than 30 days.

If any of the following criteria listed in Table 8 applies to the spill, a *lessons learned* report is required within six months of the last day of the spill response phase. If applicable to the spill, the report should include all content listed in Table 9.

**Table 8: Spill Criteria for a Lessons Learned Report**

Item #	A lessons learned report is required within six months of the completion of the spill response phase if any of the following are true:
1	The amount spilled at the time of incident is more than 10 times the reportable limit for that substance in Appendix 3 and the spill is to marine water, a river, lake, or stream.
2	The amount spilled at the time of incident is more than 10 times the reportable limit for that substance in Appendix 3 and the spill is to a protected area.  Protected areas are defined in federal and provincial statutes and include: <ul style="list-style-type: none"> <li>• National marine conservation areas (<i>Canada National Marine Conservation Area Act</i>)</li> <li>• National parks (<i>Canada National Parks Act</i>)</li> <li>• Ecological reserves (<i>Ecological Reserves Act</i>)</li> <li>• Ungulate winter range (<i>Forest and Range Practices Act</i>)</li> <li>• Old growth zones (<i>Forest Practices Code of British Columbia Act</i>)</li> <li>• Migratory bird sanctuaries (<i>Migratory birds convention act</i>)</li> <li>• Parks an designated wild land areas (<i>Park Act</i>)</li> </ul>
3	Response actions had not concluded within 7 days of the initial spill report.
4	The spill was into drinking water.
5	The spill or the response actions to address the spill resulted in: <ul style="list-style-type: none"> <li>• An injury to a member of the public</li> <li>• A fatality.</li> </ul>

**Table 9: Content of Lessons Learned Report**

Item #	Information to include in the lessons learned report:
1	Summary of the response including: <ul style="list-style-type: none"> <li>• Date and details of all response actions completed</li> <li>• Monitoring data and reports</li> <li>• The amount recovered, contained or disposed of</li> <li>• The date, location and method of ultimate disposal of spilled substance and clean up materials</li> <li>• Next steps to be completed, if any including remediation or restoration</li> </ul>
2	Lessons learned from the spill response.
3	Description of follow up actions taken to either prevent or prepare for any future spills.
4	If the responsible person is a regulated person with a spill contingency plan or if the spill



**Item # Information to include in the lessons learned report:**

triggered the activation of a geographic response plan, summarize the success of the response efforts, the post-incident review and any updates required to the plans to deal with or prevent any future spills or potential spills.

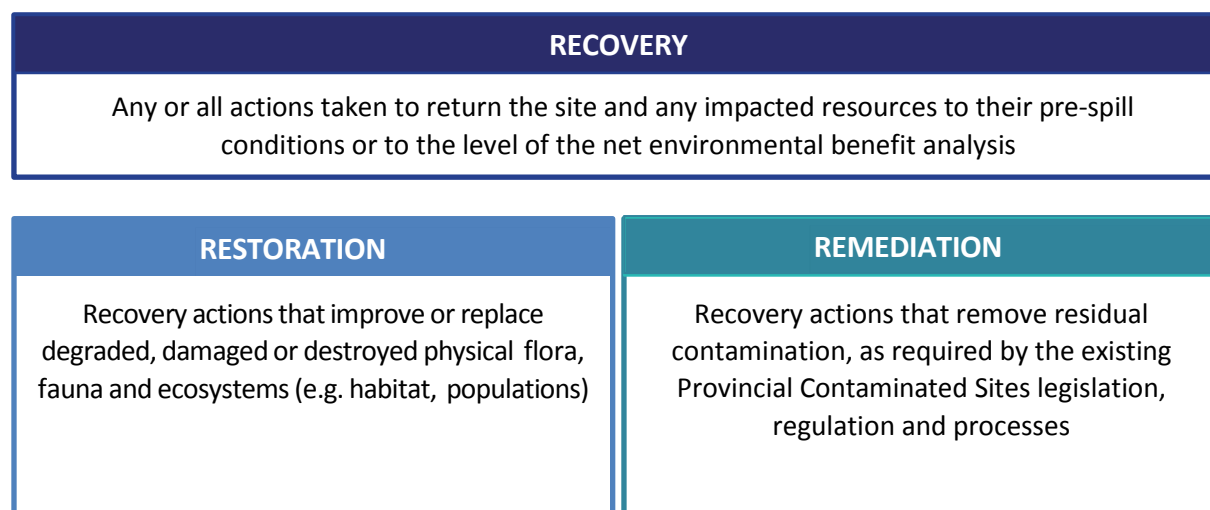


## 4. Recovery

*Recovery focuses on actions to restore the environment to as close to pre-spill state as possible.*

After the spill response phase is complete (Table 6) and freely available spilled content is removed, there are still vital actions required to ensure the area surrounding the spill site “recovers” from the impacts of the spill. As shown in Figure 3, *restoration* is a component considered in addition to the already well-established land remediation recovery actions conducted through the Provincial Contaminated Sites Regime. The focus of the first phase of regulations is on the recovery plans.

**Figure 3: Components of Spill Recovery: Restoration and Remediation**



The net environmental benefit analysis is an assessment of the impacts of response actions on people and the environment. It involves weighing the benefits and harms of various spill response tactics to ensure spill response actions are not more harmful than the spill itself. Experience has shown that some treatments can have negative effects on fragile ecosystems. This means that the amount of spill substances that can safely be removed without adversely impacting worker’s health and safety and the environment will be determined through analysis and this quantity will be removed from the spill site.

For provincially regulated oil and gas activities, the Commission has the authority to oversee the remediation requirements of the Contaminated Sites Regulation. Where recovery plans are required for spills from responsible persons regulated by the Commission, the Ministry will work with the Commission to administer the requirements of the new regulations proposed for the Regime.

### 4.1 Recovery Plans

A delegated authority may order a responsible person to prepare and submit a recovery plan that will outline how the responsible person will resolve or mitigate the impacts of the spill (Table 10). A recovery

plan provides the delegated authority the opportunity to review the intended recovery actions and direct the responsible person, where necessary, to make amendments to the plan to ensure it complies.

### New Recovery Plan Requirements

At the request of a delegated authority, the responsible person must develop or amend a recovery plan that includes the prescribed content (Table 10), and submit it to the delegated authority, in the time and manner specified by the delegated authority, to resolve or mitigate the impacts of the spill.

**Table 10: Recovery Plan Content**

#### A Recovery plan must include:

- An assessment of the nature, degree, and extent of impact to the environment caused by a spill and any additional impact from spill response actions. The impact assessment must include a description of:
  - The amount and nature of the spilled material;
  - The impacts to the environment, including, to the extent possible, a quantification of those impacts (e.g. an estimate of the number of fish killed).
- An assessment of potential or actual contaminant, disturbance sources, and biological impact pathways and receptors.
- A characterization of the baseline pre-spill condition of the environment in the area of a spill.
- Objectives for recovery actions to achieve as close to a pre-spill condition of the environment as possible.
- Proposed recovery actions based on an analysis of the different alternatives that provides permanent solutions to the maximum extent achievable.
- Outcome of any engagement and consultation with First Nations, local governments, residents and commercial enterprises in the vicinity directly impacted by the spill, potentially directly impacted by the proposed recovery plan or with knowledge of the affected area.
- A schedule for implementation of the approved recovery plan option. This schedule must include a detailed plan to monitor and report on the progress/achievement of recovery plan implementation.

## 5. Next Steps

### 5.1 Future elements

The Ministry will continue to develop future phases of the Spill Preparedness, Response, and Recovery Regulation. The Ministry will continue to meet with federal and provincial regulators with a goal of seeking opportunities for collaboration, information sharing and streamlining the reporting tools for regulated and responsible persons. The Ministry intends to publish intentions papers for public review before each new set of regulations is completed.

### 5.2 How to Provide Comment

If you would like to provide feedback on the *Proposed Regulations for the Environmental Management Act, 2016 – Policy Update*, please send your comments to [spillresponse@gov.bc.ca](mailto:spillresponse@gov.bc.ca).



## Appendix 1: Prescribed Substances to define the Regulated Person<sup>1</sup>

Substance Name	Synonyms for Substance	Prescribed substance
<b>Aviation Fuel</b>	AV Gas, Jet fuel A, Jet Fuel B	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)
<b>Bunker Fuel</b>	No. 6 Fuel, Heavy Fuel Oil, Marine Fuel, Shipping Fuel	CAN/CGSB-3.2 Heating Fuel Oil
		CGSB-3.11 Naval Distillate Fuel
		ISO 8217:2012 Petroleum products -- Fuels (class F) -- Specifications of marine fuels
<b>Crude Oil - Sour</b>	Includes diluted bitumen	TDG UN 1267 or TDG UN 3494
<b>Crude Oil - Sweet</b>	Includes diluted bitumen	TDG UN 1267
<b>Diesel Fuel</b>		CAN/CGSB-3.517-2015 Diesel fuel
		CAN/CGSB-3.522-2015 Diesel fuel containing biodiesel (B6–B20)
		CAN/CGSB-3.517-2013 Carburant diesel
		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 (B1–B5)
		CAN/CGSB-3.524 Biodiesel (B100) for blending in middle distillate fuels
<b>Gasoline</b>	Motor Spirit, Petrol, Ethanol and Motor Spirit Mixture, with more than 10% Ethanol	CAN/CGSB-3.5-2016 Automotive gasoline
		CAN/CGSB-3.516-2011 Denatured Fuel Ethanol for Use in Automotive Spark Ignition Fuels
		CAN/CGSB-3.511-2016 Oxygenated automotive gasoline containing ethanol (E1-E10)
		CAN/CGSB-3.512-2013 Automotive ethanol fuel (E50-E85)
<b>Kerosene</b>	Fuel Oil No. 5, Paraffin	CAN/CGSB-3.3-2014 Kerosene
<b>Petroleum Distillates</b>	petroleum ether, petroleum spirit, white spirit, mineral spirit, ligroin, naphtha	CAN/CGSB-3.27-2012 Naphtha Fuel

1. Additional requirements may exist under other regulatory authorities.

## Appendix 2: Spill Contingency Plan Requirements

Category	Specific for Pipelines and Rail	Specific for Trucks
<b>Contact Information</b>	<ul style="list-style-type: none"> <li>Provide the regulated person's name, company, business, and emergency contact information.</li> </ul>	<ul style="list-style-type: none"> <li>Provide the regulated person's name, company, business and emergency contact information.</li> </ul>
<b>Declaration</b>	<ul style="list-style-type: none"> <li>Sign a declaration indicating that the information contained in the spill contingency plan is accurate, true, and complete.</li> </ul>	<ul style="list-style-type: none"> <li>Sign a declaration indicating that the information contained in the spill contingency plan is accurate, true, and complete.</li> </ul>
<b>Personnel and Incident Command System (ICS)</b>	<ul style="list-style-type: none"> <li>Specify the job title and two alternate job titles of persons who can fulfill the following ICS roles: <ul style="list-style-type: none"> <li>Information Officer,</li> <li>Liaison Officer,</li> <li>Safety Officer,</li> <li>Incident Commander,</li> <li>Operations Section Chief,</li> <li>Planning Section Chief,</li> <li>Logistics Section Chief, and</li> <li>Finance or Administration Section Chief.</li> </ul> </li> <li>Any ICS positions fulfilled by an agent must be referenced.</li> </ul>	<ul style="list-style-type: none"> <li>Specify the job title and one alternate job title of persons who can fulfill the following ICS roles: <ul style="list-style-type: none"> <li>Information Officer,</li> <li>Liaison Officer,</li> <li>Safety Officer,</li> <li>Incident Commander.</li> </ul> </li> <li>Any ICS positions fulfilled by an agent must be referenced.</li> </ul>
<b>Response Equipment and Resources</b>	<ul style="list-style-type: none"> <li>List response, clean-up equipment, and any other resources necessary to address a worst-case spill.</li> <li>If the prescribed substance is flammable, volatile, or is harmful to human health, list the qualified firefighting, air monitoring, and first aid resources required to treat injury from the prescribed substance.</li> </ul>	<ul style="list-style-type: none"> <li>List response, clean-up equipment, and any other resources necessary to address a worst-case spill.</li> <li>If the prescribed substance is flammable, volatile, or is harmful to human health, list the qualified firefighting, air monitoring, and first aid resources required to treat injury from the prescribed substance.</li> </ul>
<b>Training</b>	<ul style="list-style-type: none"> <li>Identify the training required for each job title of the spill management team and the ICS roles. This includes: <ul style="list-style-type: none"> <li>Type and frequency of training for the assigned ICS role.</li> <li>Training to use the spill response procedure.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Identify the training required for each job title of the spill management team and the ICS roles. This includes: <ul style="list-style-type: none"> <li>Type and frequency of training for the assigned ICS role.</li> <li>Training to use the spill response procedure.</li> </ul> </li> </ul>
<b>Hazard Assessment</b>	<ul style="list-style-type: none"> <li>Describe the properties of the prescribed substance.</li> <li>Describe type of containment to store or transport the prescribed substance.</li> <li>Describe the potential spill risk to the human health, infrastructure and environment up to and including the worst-case volume of a spill of the prescribed substance.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the properties of the prescribed substance.</li> <li>Describe the type of containment to store or transport the prescribed substance.</li> <li>Describe the potential spill risk to the human health, infrastructure and environment up to and including the worst-case volume of a spill of the prescribed substance.</li> </ul>

Category	Specific for Pipelines and Rail	Specific for Trucks
<b>Spill response procedures</b>	<p>Describe:</p> <ol style="list-style-type: none"> <li>1. Initial spill assessment procedures including: <ul style="list-style-type: none"> <li>• Safety assessment (workers and public);</li> <li>• Evacuation procedures for personnel;</li> <li>• The equipment needed to first assess the spill;</li> <li>• The method to estimate the quantity and nature of the spill; and</li> <li>• If applicable criteria used to classify the level of response.</li> </ul> </li> <li>2. Procedures to notify of appropriate parties which include: <ul style="list-style-type: none"> <li>• Emergency Management BC/Provincial Emergency Program;</li> <li>• Persons associated with the regulated person (supervisor, contractors, key response personnel etc.);</li> <li>• Governments and other public agencies federal and municipal governments, police and fire departments in the vicinity, emergency response teams, ambulance and medical services; and</li> <li>• Surrounding community or those who may be directly impacted (schools, hospitals, individuals).</li> </ul> </li> <li>3. Spill response actions if applicable to: <ul style="list-style-type: none"> <li>• Detect, assess, document and track the presence and size of the spill;</li> <li>• Assess the damage to the environment due to the spill including the relevant assessment methodology/tools;</li> <li>• Deploy or mobilize personnel and equipment appropriate for that area;</li> <li>• Monitor personnel, equipment and the spill;</li> <li>• Establish the incident command post;</li> <li>• Control, contain, confine, collect, transfer and dispose of spilled substance and related wastes;</li> <li>• Protect or reduce impacts or damage to environmentally sensitive areas, infrastructure, wildlife, and any economic/historical/archeological/cultural resources if the spill is adjacent</li> </ul> </li> </ol>	<p>Describe:</p> <ol style="list-style-type: none"> <li>1. Initial spill assessment procedures including: <ul style="list-style-type: none"> <li>• Safety assessment (workers and public);</li> <li>• Evacuation procedures for personnel;</li> <li>• The equipment needed to first assess the spill;</li> <li>• The method to estimate the quantity and nature of the spill; and</li> <li>• If applicable criteria used to classify the level of response.</li> </ul> </li> <li>2. Procedures to notify of appropriate parties which include: <ul style="list-style-type: none"> <li>• Emergency Management BC/Provincial Emergency Program;</li> <li>• Internal notification and order of priority (supervisor, contractors, key response personnel etc.); and</li> <li>• External notification of federal and municipal governments, police and fire departments in the vicinity, emergency response teams, ambulance and medical services, schools, hospitals, surrounding community or those who may be directly impacted.</li> </ul> </li> <li>3. Spill response actions if applicable to: <ul style="list-style-type: none"> <li>• Detect, assess, document and track the presence and size of the spill;</li> <li>• Assess the damage to the environment due to the spill including the relevant assessment methodology/tools;</li> <li>• Deploy or mobilize personnel and equipment appropriate for that area;</li> <li>• Monitor personnel, equipment and the spill;</li> <li>• Establish the incident command post;</li> <li>• Control, contain, confine, collect, transfer and dispose of spilled substance and related wastes;</li> <li>• Protect or reduce impacts or damage to environmentally sensitive areas, infrastructure, wildlife, and any economic/historical/archeological/cultural resources if the spill is adjacent to or nearby a pathway that will</li> </ul> </li> </ol>

Category	Specific for Pipelines and Rail	Specific for Trucks
	<p>to or nearby a pathway that will impact these resources; and</p> <ul style="list-style-type: none"> <li>Track and document spill response actions.</li> </ul>	<p>impact these resources; and</p> <ul style="list-style-type: none"> <li>Track and document spill response actions.</li> </ul>
<b>Waste Management</b>	<ul style="list-style-type: none"> <li>Identify sufficient temporary areas that would contain recovered waste prior to transportation.</li> <li>Identify facilities that would be able to accept the recovered waste for transport and management whether on-site or contracted.</li> <li>Identify transporters that can remove the recovered waste from temporary areas to waste management facilities. <i>Note: most waste facilities dealing with these substances would need to be authorized under the Hazardous Waste Regulation.</i></li> <li>Describe response procedures to be taken if waste is generated from a spill and how it would be managed.</li> </ul>	<ul style="list-style-type: none"> <li>Identify transporters that can remove the recovered waste from temporary areas to waste management facilities. <i>Note: most waste facilities dealing with these substances would need to be authorized under the Hazardous Waste Regulation.</i></li> <li>Describe the response procedures to be taken if waste is generated from a spill and how it would be managed.</li> </ul>
<b>Wildlife Response</b>	<ul style="list-style-type: none"> <li>Identify the following if the hazard assessment has identified wildlife risks: <ul style="list-style-type: none"> <li>Potential wildlife impacts;</li> <li>Interim protection or response strategies and procedures to implement at the site before the qualified wildlife response or resources needed to assist with wildlife response arrive at the spill site;</li> <li>Potential onsite staging areas for equipment, and establish an area that can be a staging area if not a fixed facility;</li> <li>Qualified wildlife response resources able to arrive on site to assist with impacted wildlife;</li> <li>A pre-set time for qualified wildlife response resource to arrive on site; and</li> <li>The procedure for addressing adequate response to impact on wildlife.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Identify the following if the hazard assessment has identified wildlife risks: <ul style="list-style-type: none"> <li>Potential wildlife impacts;</li> <li>Interim protection or response strategies and procedures to implement at the site before the qualified wildlife response or resources needed to assist with wildlife response arrive at the spill site;</li> <li>Qualified wildlife response resources able to arrive on site to assist with impacted wildlife;</li> <li>A pre-set time for qualified wildlife response resource to arrive on site; and</li> <li>The procedure for addressing adequate response to impact on wildlife.</li> </ul> </li> </ul>
<b>Health and Safety</b>	Describe the procedures to ensure the protection of personnel and the public during a spill that includes controlling access to and ensuring safety at the spill site.	Describe the procedures to ensure the protection of personnel and the public during a spill that includes controlling access to and ensuring safety at the spill site.
<b>Communications</b>	Describe: <ul style="list-style-type: none"> <li>The method to provide information to response personnel, on-scene</li> </ul>	Describe: <ul style="list-style-type: none"> <li>The method to provide information to response personnel, on-scene</li> </ul>



Category	Specific for Pipelines and Rail	Specific for Trucks
	coordinators, local, provincial, and federal responders, and the public during a response to a spill. <ul style="list-style-type: none"> <li>○ The method to gather information about the spill and its impacts from the public or others.</li> </ul>	coordinators, local, provincial, and federal responders, and the public during a response to a spill.
<b>Maps</b>	<ul style="list-style-type: none"> <li>● Provide a map of entire pipeline or rail line that includes the following:               <ul style="list-style-type: none"> <li>○ Location of transportation corridor of prescribed substance subject to the plan, including a diagram indicating tanks, cargo, pipelines, pipes, wells, mooring areas, storm water and other drainage systems and other prescribed substances' storage, transfer and operational sites where applicable;</li> <li>○ The spill response planning zone, escape routes, and designated spill control points;</li> <li>○ Location of roads within spill response planning zone, access roads, urban centres;</li> <li>○ Topographical features, environmental features and structures, including streams, stream crossings, lakes, and rivers; and</li> <li>○ Locations or areas within the spill response planning zone that may be used by the public, including but not limited to public facilities, infrastructure, dwellings, schools, recreational areas, water supply intakes, and environmentally sensitive areas.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Provide a map that shows expected transportation routes that includes the following:               <ul style="list-style-type: none"> <li>○ Location of transportation corridor of prescribed substance subject to the plan, including, urban centres, storm water and other drainage systems and transfer and operational sites where applicable;</li> <li>○ Topographical features, environmental features and structures, including streams, stream crossings, lakes, and rivers; and</li> <li>○ Locations or areas within the transportation that may be used by the public, including but not limited to public facilities, infrastructure, dwellings, schools, recreational areas, water supply intakes, and environmentally sensitive areas.</li> </ul> </li> </ul>

## Appendix 3: Prescribed Substances and Quantities for Immediate Spill Reporting

Note: "Federal Regulations" means the Transportation of Dangerous Goods Regulations made under the Transportation of Dangerous Goods Act (Canada); "Hazardous Waste Regulation" means B.C. Reg. 63/88.

Item	Column 1 Substance spilled	Column 2 Specified amount
1	Class 1, Explosives as defined in section 2.9 of the Federal Regulations	Any quantity that could pose a danger to public safety or 50 kg
2	Class 2.1, Flammable Gases, other than natural gas, as defined in section 2.14 (a) of the Federal Regulations	10 kg
3	Class 2.2 Non-Flammable and Non-Toxic Gases as defined in section 2.14 (b) of the Federal Regulations	10 kg
4	Class 2.3, Toxic Gases as defined in section 2.14 (c) of the Federal Regulations	5 kg
5	Class 3, Flammable Liquids as defined in section 2.18 of the Federal Regulations	100 L
6	Class 4, Flammable Solids as defined in section 2.20 of the Federal Regulations	25 kg
7	Class 5.1, Oxidizing Substances as defined in section 2.24 (a) of the Federal Regulations	50 kg or 50 L
8	Class 5.2, Organic Peroxides as defined in section 2.24 (b) of the Federal Regulations	1 kg or 1 L
9	Class 6.1, Toxic Substances as defined in section 2.27 (a) of the Federal Regulations	5 kg or 5 L
10	Class 6.2, Infectious Substances as defined in section 2.27 (b) of the Federal Regulations	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
11	Class 7, Radioactive Materials as defined in section 2.37 of the Federal Regulations	Any quantity that could pose a danger to public safety and an emission level greater than the emission level established in section 20 of the "Packaging and Transport of Nuclear Substances Regulations"
12	Class 8, Corrosives as defined in section 2.40 of the Federal Regulations	5 kg or 5 L
13	Class 9, Miscellaneous Products, Substances or Organisms as defined in section 2.43 of the Federal Regulations	25 kg or 25 L
14	Waste containing dioxin as defined in section 1 of the Hazardous Waste Regulation	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment

Item	Column 1 Substance spilled	Column 2 Specified amount
15	Leachable toxic waste as defined in section 1 of the Hazardous Waste Regulation	25 kg or 25 L
16	Waste containing polycyclic aromatic hydrocarbons as defined in section 1 of the hazardous Waste Regulation	5 kg or 5 L
17	Waste asbestos as defined in section 1 of the Hazardous Waste Regulation	50 kg
18	Waste oil as defined in section 1 of the Hazardous Waste Regulation	100 L
19	Waste containing a pest control product as defined in section 1 of the Hazardous Waste Regulation	5 kg or 5 L
20	PCB Wastes as defined in section 1 of the Hazardous Waste Regulation	25 kg or 25 L
21	Waste containing tetrachloroethylene as defined in section 1 of the Hazardous Waste Regulation	50 kg or 50 L
22	Biomedical waste as defined in section 1 of the Hazardous Waste Regulation	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
23	A hazardous waste as defined in section 1 of the Hazardous Waste Regulation and not covered under items 1 – 22	25 kg or 25 L
24	A substance, not covered by items 1 to 23, that can cause pollution	200 kg or 200 L
<b>NEW</b>	<b>Items 1-24 if spilled to a body of water - marine and fresh waters whether or not it usually contains water or ice including stream, lake, pond, river, creek, spring, aquifer, ravine, gulch, wetland or glacier, and ditch that is not self-contained and connects to a body of water.</b>	<b>Any quantity</b>
25	Natural gas	10 kg, if there is a breakage in a pipeline or fitting operated above 100 psi that results in a sudden and uncontrolled release of natural gas