

Testing Spill Contingency Plans

Section 91.11 of the *Environmental Management Act* (EMA) sets out the requirement that regulated persons develop and test spill contingency plans. Section 15 of the [Spill Contingency Planning Regulation](#) (SCPR) outlines how these plans are to be tested.

This document helps regulated persons understand and comply with requirements for testing spill contingency plans.

Types of tests

Tests are the simulated implementation of a Spill Contingency Plan (SCP) against a scenario reflective of a real spill. Tests are performed using drills and exercises.

- **Drills** are tests that evaluate a single, specific function. For example, a drill for a SCP could be the initiation of notification procedures of a real spill scenario.
- **Exercises** are tests that evaluate a process or series of functions. For example, the activation of the entire SCP in sequence to assess how the various components work together.

Required tests are:

- **Discussion-based test** is an exercise or drill, based on a simulated spill of regulated substances, which is not operations-based. Discussion-based tests are also known as table-top tests.
- **Operations-based test** is an exercise or drill based on a simulated spill of a regulated substance. The exercise or drill involves deployment of equipment, personnel and other resources, or the implementation of spill response procedures.

- **Worst-case scenario test** is an operation-based test that is the simulated worst-case scenario spill of a specified volume of a regulated substance. Worst-case scenario tests must be conducted in British Columbia.

What must be tested

Section 16 of the SCPR lists all the components of a regulated person's SCP that must be tested. Section 15 (2) (a) sets the requirement that all components are to be tested during a three-year period. The components to test are:

- Notification;
- Mobilization, deployment and ongoing sufficiency of personnel and equipment;
- Maintenance of equipment, personnel, and other resources;
- Incident command system;
- Spill source control;
- Initial and ongoing assessment of the spill site;
- Stabilization, removal, containment, and clean up;
- Protection of aspects of the environment, human health, and infrastructure as related to the spill response planning map (Section 5 (1) (g)), and hazard assessment (Section 4 (1) (c));
- Monitoring and documentation;
- Communications; and
- Waste management.

Response staff must participate in tests

Tests must involve individuals who would be responsible for implementing the components of the SCP that are being tested.

Frequency of tests for highway transporters

Section 15 (1) and (4) set out the types of tests required by highway transporters in a three-year period. Highway transporters must perform a discussion-based and operation-based test each year during the three-year period for a total of six tests. They are not required to conduct worst-case scenario tests.

Highway transporters must test all 11 components in the three-year period as listed under the *What must be tested* heading in this Fact Sheet. Additional tests can be conducted in the period if all 11 components were not tested as part of the minimum six required tests.

Frequency of tests for pipelines and rail

Section 15 (1) sets out the types of tests required by pipeline and rail operations. Unlike highway transporters, pipeline and rail operations must conduct worst-case scenario tests. During each three-year period, pipeline and rail operations that are regulated persons must perform a worst-case scenario test in one year and both a discussion-based and operations-based test in each of the other two years for a total of five tests. For example:

- Year 1: discussion-based and operations-based test
- Year 2: discussion-based and operations-based test
- Year 3: worst-case scenario test (conducted in B.C.)

Pipeline and rail operations must test all 11 components in the three-year period as listed under the *What must be tested* heading in this Fact Sheet. Additional tests can be conducted in the period if all 11 components were not tested as part of the minimum five required tests.

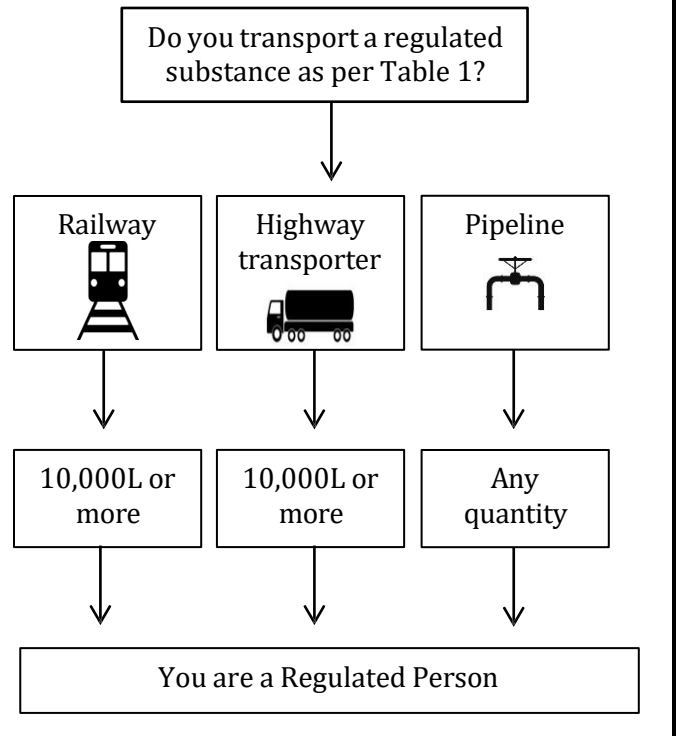
The order of tests in each three-year period is not prescribed in the regulation. This means a worst-case scenario test can occur at any point in the period. However, the discussion-based and operation-based tests must be conducted in the years that the worst-case test is not being conducted.

A worst-case scenario test is not required in a three-year period by regulated persons that faced a worst-case scenario spill during that time.

Overview of a Regulated Person

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:

1. Any quantity being transported by pipeline
2. 10,000 litres or more transported by railway
3. 10,000 litres or more being transported by highway transporter (truck)



Determining the specified quantity for a worst-case scenario spill

The specified quantity for each type of regulated person is set out in Section 2 of the SCPR. A worst-case scenario test is based on a simulated spill of a specified quantity.

- A pipeline specified quantity is based on the greater of: (1) the quantity of the largest historical

spill from the pipeline; (2) the volume of the largest battery of breakout tanks without secondary containment; or (3) a calculation of how much could spill based on the maximum amount of time it may take to detect a spill and shutdown the pipeline [*Formula: Quantity= (detection time + shutdown time) x flow rate + line drainage*].

- A railway's specified quantity is based on the greater of: (1) the maximum in a single railcar; or (2) 20% of the maximum quantity that *could be* transported by the train. For example, if a train has 10 railcars with the maximum 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. Note that the worst-case-scenario planning for this train is consistently based on 230,000 litres of oil, even if it carries less than that amount at times. As a result, the emergency staff is always prepared for 20% of maximum capacity spill, regardless of the total carried regulated substance.

Providing information about tests to the ministry

Section 15 (3) sets out that a regulated person, on request of a director must:

- Provide the dates when tests were conducted or will be conducted in the current three-year period;
- Provide information about the above-mentioned tests; and
- Allow the director, or a designated individual, to observe any tests that are planned.

B.C. Energy Regulator Equivalency

Parties regulated by the B.C. Energy Regulator (BCER) who meet the regulated person criteria are regulated persons. However, these operations are governed by a comprehensive emergency preparedness and response system under the *Energy Resource Activities Act 2008*. These parties are exempt from requirements for: (1) spill contingency planning; (2) drills and exercises; and (3) records keeping.

Parties regulated by the BCER who are also regulated persons under EMA will continue to interact primarily with the BCER in order to fulfill the regulatory requirements of both.

Fines and Penalties

It is the responsibility of regulated persons, responsible persons and the owners of substances or things to understand and comply with EMA and its 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. Current legislation and regulations should be consulted for complete information.

Failure to be in compliance can result in convictions of fines and imprisonment, as outlined in EMA and its associated regulations.

Additional Fact Sheets

Fact Sheets on other relevant topics are published by the Environmental Emergency Branch (EEB) and available at:

www.gov.bc.ca/spillresponse

The complete list of available Fact Sheets:

- 01 Regulated Person
- 02 Responsible Person
- 03 Spill Reporting
- 04 Lessons-Learned reports
- 05 Cost Recovery
- 06 Requirement to Provide Information
- 07 Spill Contingency Planning
- 08 Testing Spill Contingency Plans
- 09 Recovery Plan

**For more information, contact
Environmental Emergency Branch
at: spillresponse@gov.bc.ca**

In Table 1, the substances are classified in full by either their four-digit United Nations numbers (UN numbers) or Canadian General Standards Board (CGSB) number.

Table 1. List of Regulated Substances

Common Name	Classification
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)
Bunker Fuel	ISO 8217:2012 Petroleum products -- Fuels (class F) -- Specifications of marine fuels
	CGSB-3.11-2010 Naval Distillate Fuel
Crude oil or diluted bitumen	TDG UN 1267
	TDG UN 3494
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 (B1-B5)
	CAN/CGSB-3.524 Biodiesel (B100) for blending in middle distillate fuels
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)
Kerosene	CAN/CGSB-3.3-2014 Kerosene
Heating fuel	CAN/CGSB-3.2-2015 Heating fuel oil
Petroleum Distillates	CAN/CGSB-3.27-2012 Naphtha Fuel

Appendix 1: Example testing schedule for three-year period starting in 2025

- Regulated persons are free to plan their own schedule to meet testing requirements set out in the SCPR. The purpose of this sample schedule is to assist regulated persons in planning their testing schedules.

Highway transporter regulated persons

Three-year period		
Jan 1, 2025 to Dec 31, 2025	Jan 1, 2026 to Dec 31, 2026	Jan 1, 2027 to Dec 31, 2027
Discussion-based test DRILL <i>Component: maintaining the ongoing sufficiency of equipment, personnel and other resources as it relates to the mobilization and deployment of spill response equipment and spill response personnel</i>	Discussion-based test EXERCISE <i>Components: (1) notification; (2) incident command system and incident command post; (3) monitoring and documentation; and, (4) communication</i>	Discussion-based test DRILL <i>Component: protection of aspects of environment, human health and infrastructure</i>
Operations-based test EXERCISE <i>Components: (1) mobilization, deployment and ongoing sufficiency as it relates to spill response equipment and spill response personnel; and, (2) source control</i>	Operations-based test DRILL <i>Component: initial and ongoing assessments</i>	Operations-based test EXERCISE <i>Components: (1) stabilizing containing removing and cleaning up; and, (2) waste management</i>

Pipeline and rail operations regulated persons

Three-year period		
Jan 1, 2025 to Dec 31, 2025	Jan 1, 2026 to Dec 31, 2026	Jan 1, 2027 to Dec 31, 2027
Discussion-based test EXERCISE <i>Components: (1) initial and ongoing assessments; and, (2) protection of aspects of environment, human health and infrastructure</i>	Discussion-based test DRILL <i>Component: maintaining the ongoing sufficiency of equipment, personnel and other resources as it relates to the mobilization and deployment of spill response equipment and spill response personnel</i>	Worst-case scenario test EXERCISE <i>Components: (1) notification; (2) incident command system and incident command post; (3) monitoring and documentation; and, (4) communication</i>
Operations-based test DRILL <i>Component: mobilization, deployment and ongoing sufficiency as it relates to spill response equipment and spill response personnel</i>	Operations-based test EXERCISE <i>Components: (1) source control; (2) stabilizing containing removing and cleaning up; and, (3) waste management.</i>	