Canada Energy Regulator | Régie de l'énergie du Canada

# Remediation Process Guide

October 2020

Canada

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# Contents

# Disclaimer

The Canada Energy Regulator (CER) 2020 Remediation Process Guide (Guide) is our policy framework for the management and oversight of contamination and remediation related to CER-regulated Facilities and activities.

## Additional Approvals or Permits

Some of the activities described within this Guide may require additional approvals or permits from the CER or other regulatory bodies, including from local, provincial or territorial governments. Companies must comply with applicable laws from all authorities including local, provincial and territorial governments.

## Professional Judgment Required

Professional judgement must be exercised when conducting Environmental Site Assessments (ESAs) and submitting Remedial Action Plans (RAPs). Sampling and ESA requirements and procedures to be followed for any site depend on the site conditions, and must be determined by the environmental professional responsible for conducting the work required by this Guide. Environmental professionals responsible for conducting this work must consider ongoing improvements of practices and approaches in conducting ESAs and RAP submissions.

## Document to be Updated

This document will be updated periodically. Companies must ensure they are always relying on the most up-to-date edition of the Guide and any documents referenced within, including manuals, guidelines, and legislation. This document replaces and supersedes the 2011 Remediation Process Guide.

## Executive Summary

As the Canada Energy Regulator (CER), we oversee our environmental protection mandate throughout the lifecycle of Facilities that are regulated under our jurisdiction. Environmental protection activities include the management of Contamination by companies operating Facilities that are under our jurisdiction. Companies must comply with all laws related to the reporting, management, remediation, and monitoring of contamination.

The *CER 2020 Remediation Process Guide* provides the framework for companies to demonstrate they are effectively anticipating, preventing, managing and mitigating the Adverse Effects of Contamination related to their Facilities. Find information within the Guide on our process for the submission of remediation process documents, and guidance on how to maintain compliance with our requirements.

Our first Remediation Process Guide was published in May 2011. The 2020 edition of the Remediation Process Guide includes the following updates:

The Guide:

- is applicable throughout all phases of the project lifecycle, from construction to abandonment and to abandoned pipelines
- provides clarity on expectations for Risk Management and reporting and management of Contamination that is encountered on Company Owned or Leased Lands
- describes requirements for notification and engagement of potentially affected persons and communities, including Indigenous Peoples
- outlines our approach to enhancing public transparency by the CER of the remediation process and information collected by the CER within the remediation process
- provides reporting requirements for Company's Off-site Contamination and Third Party Contamination
- includes the template for the Declaration Letter to be signed by an Accountable Officer
- describes reporting requirements using the CER's online event reporting system (OERS)

# Interpretations

The following interpretations apply in this Guide.

**Adverse Effect** means the impairment of or damage to the environment or the health of humans, or damage to property or loss or reasonable enjoyment of life or property. (Canada Energy Regulator Filing Manual, 2020)

**All Lands** means Company Owned or Leased Lands, Right-of-Way or any other temporary or permanent lands required for the construction, operation, maintenance or abandonment of a Facility. All Lands includes lands occupied by an abandoned pipeline.

**Company's Off-Site Contamination** means any Contamination that has emanated from the Company Owned or Leased Lands, company's Facilities or Right-of-Way, to beyond the real property boundaries to property owned, leased, licensed or controlled by a third party.

**Company Owned or Leased Lands** means company owned, occupied, controlled, leased or licensed lands, excluding the Right of Way, on which above-ground energy infrastructure or Facilities are located or were formerly located (including but not limited to; pump or compressor stations, meter stations, valve sites, tank terminals or processing plants) that are within CER jurisdiction.

**Contamination** means the presence of a substance in soil, sediment, air, or water at concentrations (1) above background (normally or naturally occurring) levels, and poses an actual or potential hazard to the environment, including human health or (2) exceeding levels specified in applicable laws and guidelines.

**Detailed Incident Report (DIR)** means the submission required by the Canada Energy Regulator *Onshore Pipeline Regulations* (OPR) section 52 following the notification of an incident.

**Facilities** or **Facility** means regulated Facility as defined in the *Canadian Energy Regulator Act* (CER Act) and which shall include abandoned Facility, as defined in the CER Act, as well as a pipeline, well, or abandoned pipeline as defined in the *Canada Oil and Gas Operations Act* (COGOA), and the *Oil and Gas Operations Act* (OGOA) (NWT) and for certainty, includes but is not limited to; pump or compressor stations, pipelines, meter stations, valve sites, tank terminals or processing plants that are within CER jurisdiction.

**Incident** means an Incident that must be reported under the CER's *Onshore Pipelines Regulations* (OPR) and *Processing Plant Regulations* (PPR), or the *Drilling and Production Regulations* (DPR) under the *Canada Oil and Gas Operations Act* (COGOA), or the *Oil and Gas Drilling and Production Regulations* (OGDPR) (NWT) under the *Oil and Gas Operations Act* (OGOA) (NWT).

**On-site Contamination** means Contamination in, on, under or over All Lands.

**Phase I Environmental Site Assessment (Phase I ESA)** means the systematic process, as prescribed by CSA Z768-01, by which an assessor seeks to determine whether a particular site is or may be subject to Contamination. (Canadian Standards Association, R2016).

**Phase II Environmental Site Assessment (Phase II ESA)** means the systematic, iterative process, as outlined in CSA Z769-00, by which an assessor seeks to characterize and/or delineate the concentrations or quantities of substances of concern related to a site and compare those levels to established criteria. (Canadian Standards Association, 2013).

**Receptor** means the entity (e.g., organism, population, community, ecosystem, humans) that might be adversely affected by contact with or exposure to a substance of concern. (Department of Fisheries and Oceans, 2011).

**Release** includes discharge, spray, spill, leak, seep, pour, emit, dump and exhaust. (*Onshore Pipeline Regulations* (OPR)).

**Reclamation** means the process of re-establishing a disturbed site to a former or other productive use, not necessarily to the same condition that existed prior to disturbance. The land capability may be at a level different

(i.e., lower or higher) than that which existed prior to the disturbance, depending on the goal of the process. Reclamation is not considered complete until the goals for Reclamation have been achieved.

**Remediation** means action to eliminate, limit, correct, counteract, mitigate or remove any contaminant or the Adverse Effects on the environment, including human health, of any contaminant. It includes, but is not limited to, the following:

1. environmental site assessments; analysis and interpretation, including: tests, sampling, Surveys, data evaluation, risk assessment and environmental impact assessment
2. evaluation of alternative methods of Remediation
3. preparation of a Remediation plan, including a plan for any consequential or associated removal of soil or soil relocation from the site
4. implementation of a Remediation plan
5. monitoring, verification and confirmation of whether the Remediation complies with the Remediation plan (Adapted from *British Columbia Environmental Management Act*, retrieved on 20-04-2020)

**Remediation Criteria** means the numerical limits pertaining to substances in water, air, soil and sediment which are recommended to protect and maintain the environment, including human health, and may be subject to regulatory enforcement. The term Remediation Criteria includes generic Remediation Criteria and Site-Specific Remediation Objectives. (Adapted from Canadian Council of Ministers of the Environment, 2020)

**Right-of-Way** (**RoW**) means the strip of land acquired for which a company has obtained the rights for the construction, operation, maintenance or abandonment of a Facility. This includes temporary workspace acquired for the construction, operations, maintenance or abandonment of a Facility. (Adapted from Canada Energy Regulator Filing Manual, 2020)

**Risk** means the probability of an Adverse Effect as measured by exposure of Receptors of potential concern to contaminants of potential concern. (Department of Fisheries and Oceans, 2011).

**Risk Assessment** means the process of evaluating potential Adverse Effects on the environment, including humans in response to Contamination. (Adapted from Canadian Council of Ministers of the Environment, 2020).

**Risk Control** means the process of decision-making for managing risk, and the related implementation, communication, and monitoring activities required to ensure the continuing effectiveness of the risk management process.

**Risk Management** means the selection and implementation of a strategy to control (e.g., reduce or eliminate) risk followed by monitoring and evaluation of the effectiveness of the chosen strategy. This incorporates both scientific (risk assessment) and non-scientific (e.g., social, economic) considerations. (Department of Fisheries and Oceans, 2011).

**Site Characterization and Delineation** means a process that determines the magnitude, nature, degree, and lateral and vertical extent of Contamination.

**Site-Specific Remediation Objectives** means the numerical limits that establish Remediation targets for a particular site by taking into account site-specific conditions. Site-Specific Remediation Objectives may be adapted from existing generic Remediation Criteria or developed using a Risk Assessment approach.

**Survey** means the geospatial (GPS) coordinates and a Survey drawing provided to show the area of a site with Contamination, and includes boundaries, contours, elevations, improvements, and its relationship to the surrounding land in accordance with accepted coordinates. A Survey may include other elements that the CER requires.

**Third Party Contamination** means On-Site Contamination that can be established through confirmed analytical sampling or fingerprinting, or other such methods that the CER considers acceptable, that can be shown to be not emanating or migrating from the company's Facilities or Company Owned or Leased Lands or Right-of-Way.

**Work** means construction, operations, Remediation, or any Work on Facilities or on or under All Lands.

Note:

i. words importing the singular shall include the plural and vice versa;
ii. where a word or phrase is defined, its derivatives or other grammatical forms have a corresponding meaning; and
iii. any reference application laws, including legislation, regulations or guidelines in this document shall include any amendment, re-enactment, extension, replacement, modification, consolidation or repeal thereto.

# Abbreviations

| | | | |
|---|---|---|---|
| CCME | Canada Council of Ministers of the Environment | IR | Information Request |
| CER | Canada Energy Regulator | NOC | Notice of Contamination |
| COGOA | Canada Oil and Gas Operations Act | OERS | Online Event Reporting System |
| DIR | Detailed Incident Report | OGOA | Oil and Gas Operations Act |
| DPR | Drilling Production Regulations | OPR | Onshore Pipeline Regulations |
| EA | Environmental Analyst | PPR | Processing Plant Regulations |
| ESA | Environmental Site Assessment | RAP | Remedial Action Plan |
| FCSAP | Federal Contaminated Sites Action Plan | RMP | Risk Management Plan |
| GPS | Global Positioning System | RoW | Right-of-Way |

# 1. CER's approach to transparency

Openness, transparency, and accountability are guiding principles of the Government of Canada. The CER gives Canadians access to information concerning Facilities and their potential impacts on the environment and the health and safety of the public. We are focusing on increased public access and awareness about how our activities protect the public and the environment throughout the entire lifecycle of a Facility. These activities include the process we use to regulate the management of Contamination.

We are committed to meaningful engagement with Indigenous Peoples, landowners, and all stakeholders so we can make informed decisions in the public interest. Engaging with Canadians requires relevant information be routinely available and accessible to the public.

# 2. Purpose

We are committed to protecting the environment from Adverse Effects of Contamination related to CER-regulated Facilities. We have developed the *CER 2020 Remediation Process Guide* to explain to companies how to demonstrate successful Remediation upon identification of Contamination, or in the event of a hydrocarbon or other type of Release. This Guide describes the most common approaches a company can use to demonstrate the Contamination associated with CER-regulated Facilities has been appropriately remediated to the most stringent of provincial or federal generic Remediation Criteria or to the established Site-Specific Remediation Objectives.

This Guide does not address every condition that may need to be considered during the Remediation process. For inquiries related to specific contaminated sites, contact remediation@cer-rec.gc.ca.

## 2.1 Application of Guide

This Guide applies to Facilities that are regulated by the CER under the *Canadian Energy Regulator Act* (CER Act), the *Canada Oil and Gas Operations Act* (COGOA) and the *Oil and Gas Operations Act* (OGOA) and all applicable regulations.

The Guide does not apply to initial clean-up of free product from a Release. This activity must be managed under emergency response activities as specified in the company's Emergency Procedures Manual, required under the *Onshore Pipeline Regulations* (OPR) section 32(1.1).

### Regulatory Oversight

The CER's Regulatory Oversight spans the lifecycle of the pipeline from construction to abandonment. This Guide applies to contamination identified during all phases of the Facility lifecycle, including the period during which pipelines are abandoned.

# 3. Regulatory Approach

The CER is the lifecycle regulator for federally regulated energy projects. We oversee the environmental protection activities conducted by companies for Facilities under our jurisdiction. Environmental protection activities include the management of Contamination by companies operating Facilities or managing lands under our jurisdiction. In situations where Remediation started prior to 2011, and companies remain engaged with municipal or provincial authorities to obtain site closure, we will continue to act as a stakeholder in cooperation with municipal, provincial or territorial authorities.

For sites with Contamination that are reported to the CER via a Notice of Contamination, we require companies to submit annual updates, as per section 13 of this Guide. Site closure documentation, such as a remediation certificate issued by a provincial authority or other regulator, must be submitted to the CER once the activities to address the Contamination on the site are considered closed by the respective authority or regulator.

We verify for compliance related to identification and mitigation of sites with Contamination, and may use our enforcement tools (potentially in concert with provincial authorities) depending on the site and the circumstances of the matter.

# 4. Requirements of a Management System

We expect that companies systematically construct, operate, maintain and abandon their Facilities in a manner that protects the environment, including human health and safety. In this section, we describe the requirements that apply through a company's management system under which individual contaminated sites are reported and managed at a **program level**, as part of a required environmental protection program.

## 4.1 The Environmental Protection Program

The OPR section 48, states:

> **A company shall develop, implement and maintain an environmental protection program that anticipates, prevents, manages and mitigates conditions that could adversely affect the environment.**

## 4.2 The Management System

Management system requirements, as provided in the *Onshore Pipeline Regulations* (OPR) under the *Canadian Energy Regulator Act* (CER Act) and the *Drilling and Production Regulations* (DPR) under the *Canada Oil and Gas Operations Act* (COGOA) provide the framework for the management of Contamination through companies' environmental protection plans and programs. The management system must be established, implemented and maintained throughout the entire lifecycle of the Facility from construction through to abandonment. The management system must be applied to all programs referenced at section 55 of the OPR (i.e., the emergency management program, integrity management program, safety management program, damage prevention program, and security program) and the company's environmental protection program.

Companies must also be able to demonstrate that the human resources allocated to establishing, implementing and maintaining the management system are sufficient to meet the requirements of the management system and to meet the company's obligations under section 6 (section 6.4(c) of the OPR).

The framework described below outlines the standard elements of a management system-based environmental protection program a company must implement in order to appropriately address Contamination (based on section 6 of the OPR). The elements include, but are not limited to the content in Framework Elements.

# Framework Elements

This framework for management system-based environmental protection programs and related plans to address Contamination is intended to apply to all Facilities the CER regulates. The requirements listed below are taken from the *Onshore Pipeline Regulations* (OPR).

1. **Goals related to management of Contamination**: (OPR, section 6.3) Companies are to establish goals for the environmental protection program. We expect Contamination management to be one of the goals of the environmental protection program.
2. **Objectives and specific targets** (OPR, section 6.5(1) (a), (b)): A company must set objectives and targets required to achieve the environmental protection program goals, including objectives and targets that are explicitly linked to contaminated site management. Companies must be able to demonstrate they are actively reducing the risk of the sites in which Contamination is present.
3. **Identify and analyze all hazards and potential hazards** (OPR, section 6.5(1) (c)) Hazards for the environmental program must include contaminated sites and potentially contaminated sites.
4. **Current inventory of sites with Contamination** (OPR, section 6.5(1) (d)): Companies must have an up-to-date, and readily accessible, inventory of sites with Contamination and potential Contamination.
5. **Evaluate and manage the risks** (OPR, section 6.5(1) (e): Once a company has inventoried all of its sites with Contamination, it must evaluate and manage the risks associated with the Contamination. This includes a risk-based analysis of the site conditions and Receptors for all sites with Contamination. This is an ongoing process, and the risk evaluation must be updated on a periodic basis.
6. **Establish and implement a process for developing and implementing controls to prevent, manage and mitigate the contamination to an acceptable level.** (OPR, section 6.5(1) (f). Companies will need to be able to demonstrate that the residual risk which is still present after controls have been implemented has been reduced to a level that is within guidelines that are acceptable, potentially to both the provincial or territorial regulator in which the contaminated site is located and/or acceptable to the CER, as determined on a case-by-case basis pursuant to applicable laws.
7. **Companies are expected to communicate the selected controls to anyone exposed to the risks associated with Contamination** (OPR, section 6.5(1) (f) (m)). This includes all personnel working for the company or on its behalf and any member of the public, who may be exposed or may become exposed to the Contamination.
8. **Establish and maintain a list of legal requirements** (OPR, section 6.5(1) (h)): Companies must establish and maintain a list of their legal requirements applicable to Contamination, contaminated sites, Risk Management and Remediation.
9. **Process for inspection and monitoring** (OPR, section 6.5(1) (u)): As part of a company's ongoing inspection and monitoring process, companies are expected to evaluate the adequacy and effectiveness of their environmental protection program and to be actively monitoring Facilities for environmental issues such as Contamination. Where a Facility has known Contamination, the company must have an active monitoring program.
10. **Surveillance and monitoring program** (OPR, section 39): Companies must systematically assess their operational impact on the environment, and implement preventative and corrective actions wherever impacts are identified. The OPR requires that companies have a Surveillance and Monitoring Program to do this, for the protection of the pipeline, the public and the environment.

While requirements listed above are taken from the OPR, similar requirements apply to Facilities that are regulated by legislation other than the OPR.

# 5. CER Remediation Process

Companies are expected to follow the Remediation Process as illustrated in Appendix A, Figure A.1. A simplified process is shown in Figure 1.

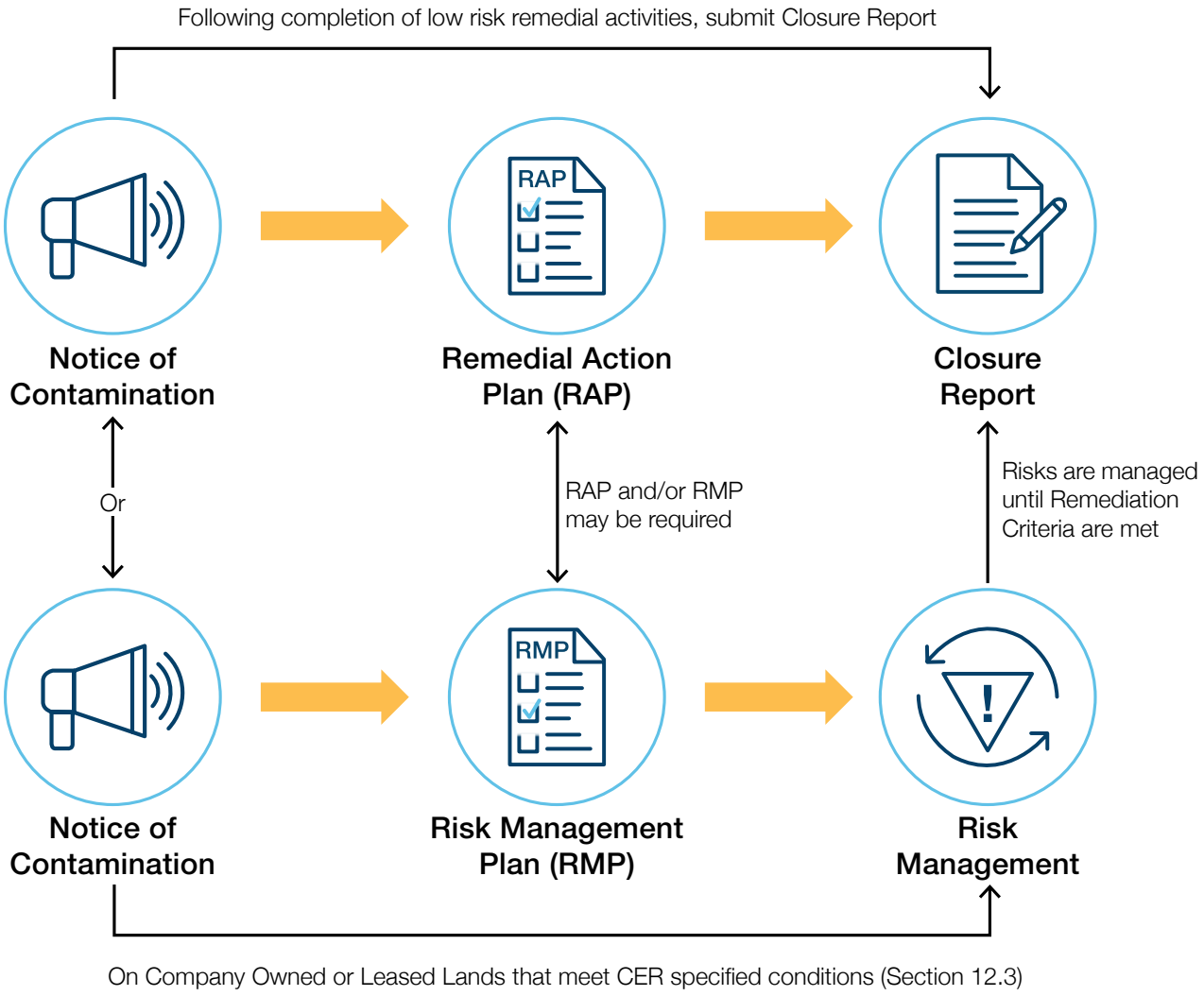



**Figure 1 Summary of Remediation Process**

As conditions and conceptual site models are unique to the site with Contamination, Figure 1reflects the general framework rather than the approved workflow for individual sites. A low risk remedial activity is determined by the responses to the screening assessment questions that are submitted in the Notice of Contamination in the Online Event Reporting System, the responses to the worksheet in Appendix C and the professional judgement of the CER Environmental Analyst.

**Sections 6 to 14 describe the steps in our Remediation Process.**

# 6. Reporting Contamination to the CER

Our top priorities are the safety and security of people, and the protection of the environment. Accordingly, it is our expectation that each company take a precautionary approach when reporting Contamination.

We will determine whether the event is reportable based on information provided by the company. In cases where an event was reported using the precautionary approach, and subsequent information indicates it need not have been reported, we will change the status of the event to 'misreported' and our records will reflect this status. The 'misreported' status means that the event was reported in error and no further compliance or enforcement actions will be taken for this event.

Similarly, we expect Contamination or suspected Contamination encountered will be promptly assessed, confirmed through analytical testing and reported pursuant to applicable laws.

**Find the table for Contamination Scenarios and Required Actions in Appendix E (see Table 18.5).**

## 6.1 Notice Of Contamination

Companies are required to report Contamination using the CER Online Event Reporting System (OERS). Companies report Contamination by submitting a Notice of Contamination (NOC).

A NOC **is** required when either of these two conditions are met:

1. Contamination is identified or encountered during any phase of the Facility's lifecycle, and the presence of Contamination is confirmed through analytical sampling. Contamination that is identified or encountered must be further assessed in a prompt manner and analytical sampling must be conducted.
2. Contamination resulting from an Incident cannot be remediated within 12 weeks of the Incident being reported to the CER[1].

A NOC **is not** required for:

1. Contamination resulting from an Incident that has been appropriately remediated within 12 weeks of reporting the Incident to the CER. Appropriate remediation is typically demonstrated through confirmation that applicable Remediation Criteria are met.
2. Contamination resulting from a known Release, that does not meet the definition of an Incident, and is immediately and completely remediated upon the Release occurring. In this case, a NOC is not required; however, companies must record the Release and also the subsequent actions that demonstrate the Contamination was appropriately remediated, and provide the record to us upon request.

Companies must submit the NOC to us as soon as possible following the confirmation of Contamination through analytical testing. The NOC should contain the most accurate information available at the time of submission. We recognize further characterization and delineation following the NOC submission may require updates to the information initially provided in the NOC. In the case of significant updates, send an email to remediation@cer-rec.gc.ca explaining the updates.

1. Under the *Onshore Pipeline Regulations* (OPR) and *Processing Plant Regulations* (PPR), a company must submit a Detailed Incident Report (DIR) within 12 weeks of submitting the Preliminary Incident Report. If a DIR is submitted prior to 12 weeks after the incident and contamination is not fully remediated at the time of DIR submission, a link to complete a NOC will automatically be sent to the company, and must be completed within 5 days of receiving the link.

## 6.2 Next Steps After Reporting Contamination

### Inspection Officer Powers

Once a company notifies the CER of Contamination, we assign a remediation event number (REM) to the event, and appoint an Environmental Analyst to act as a liaison with the company throughout the Remediation project. The Environmental Analyst is also an inspection officer, and holds all of the responsibilities and authorities in this role as set out in the *Canadian Energy Regulator Act* (CER Act). The authorities of an inspection officer are described in the *Canadian Energy Regulator Act* (CER Act) sections 103, 104, 108 and 109. The authority to issue a notice of non-compliance is stated in section 108.

If the inspection officer has reasonable grounds to believe that there is or likely to be a contravention of Part 2 to Part 5 of the *Canadian Energy Regulator Act* (CER Act), or additional action is needed to ensure the safety and security of persons or the protection of property and the environment, the inspection officer may, by order, do both or either of the following:

- direct a person to stop doing something
- take necessary measures to prevent or mitigate the hazard to the safety or security of persons or damage to property or the environment *Canadian Energy Regulator Act* (CER Act) section 109(1)

Remediation events submitted for Facilities regulated under *Canada Oil and Gas Operations Act* (COGOA) will be assigned to a conservation officer who holds all the powers of officers as set out in *Canada Oil and Gas Operations Act* (COGOA) section 54(1).

### Company Submissions

The documentation we require following submission of the NOC will be specific to the site and dependent upon several factors, including but not limited to,

- the complexity of Remediation
- the risk of off-site migration
- the potential for exposure of sensitive Receptors
- contaminant characteristics
- third party interest(s) in the site

The information provided in the NOC will assist in determining whether further documentation is required for the contaminated site. Examples of different scenarios companies may encounter, and the required actions following the submission of the NOC, are included in Appendix E.

Information requested by our Environmental Analyst directly following the submission of a NOC may include the content listed below.

**Include plans in the annual update**

Include the plans for the development of a remedial action plan (RAP), risk management plan (RMP) or closure report in the annual update (section 13), along with justification for the report being developed. The CER Environmental Analyst will consider this justification, along with the information submitted in the NOC, CCME worksheets, and any persons' interest(s) in the site, when requesting a RAP, RMP or closure report. Refer to Appendix C for guidance on when a RAP is required.

## Contamination on Company Owned or Leased Lands

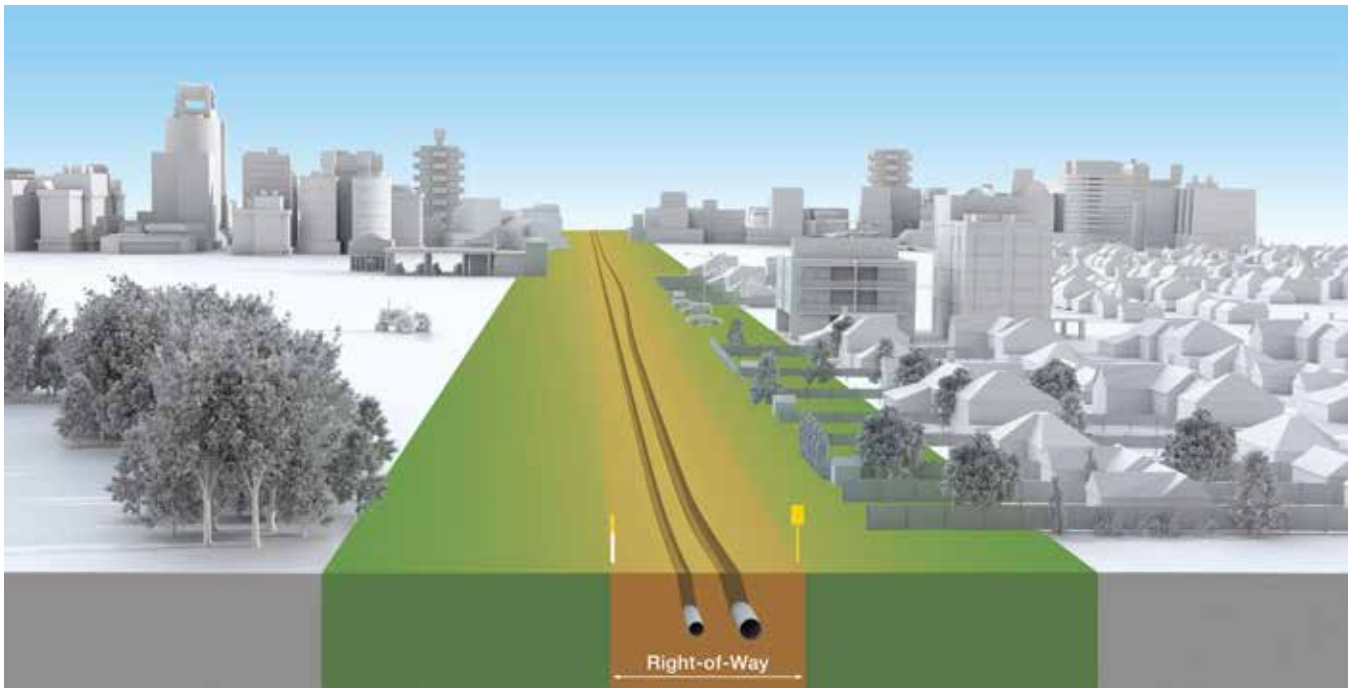
For Contamination on Company Owned or Leased Lands, a company may be required for some events to provide the content in A and B; however, for all events, a company must provide the content in A. This content consists of:

A. CCME National Classification System for Contaminated Sites: Site Classification Worksheets
B. Further details on the site conditions or contaminant characteristics through an information request in OERS.

If the three conditions in section 12.3 are met (i.e., a, b, c.), further submissions are not usually required beyond the submission of the CCME Site Classification Worksheets; however, annual updates for these contaminated sites are required.

If the three conditions in section 12.3 are not met, the information requested will be similar to that for the Right-of-Way below.

## Contamination on a Right-of-Way




For Contamination on a Right-of-Way, companies may have to submit documents listed in either or both 1 and 2 below:

1. Submit either: the response to an information request in OERS to provide further details on the site conditions or contaminant characteristics, and/or a Closure Report with a specified deadline if the responses to the screening assessment questions indicate the site is low risk. An automated request for a Closure Report will be sent by OERS immediately after companies submit a NOC in this case. Our Environmental Analyst will review the NOC, and may request further information before companies submit a Closure Report. Companies are encouraged to contact the Environmental Analyst to discuss the development of the Closure Report and the timeline for Closure Report submission.
2. Submit the CCME National Classification System for Contaminated Sites Site Classification Worksheets. Following review of these worksheets and information provided in the annual updates, the Environmental Analyst will request any of the following documents as next steps:
    a. A Remedial Action Plan (RAP) with a specified deadline. Companies are encouraged to contact our Environmental Analyst to discuss the development of a RAP and the timeline for RAP submission.
    b. A Risk Management Plan (RMP) with a specified deadline. Companies are encouraged to contact our Environmental Analyst to discuss the development of a RMP and the timeline for RMP submission.
    c. A Closure Report with a specified deadline. A Closure Report will be requested following the submission of the CCME site classification worksheets with no requirement for a RAP submission, when all of the criteria listed below are met, and responses to the questions in Appendix C do not indicate the need for a RAP:
        - contaminant exposure presents a low risk to receptors
        - there is low risk of off-site migration
        - remedial activities follow standard practices
        - the site is remediated to generic Remediation Criteria

Companies are encouraged to contact the Environmental Analyst to discuss the development of the Closure Report, and the timeline for Closure Report submission.

## 6.3 Company's Off-Site Contamination

A company may become aware of its Facilities generating Company Off-Site Contamination or potential Company Off-Site Contamination through a variety of means.

If the Company's Off-Site Contamination is resultant of plume migration from previously reported Contamination on or from All Lands, the company must submit a notice of its Company Off-Site migration as follows:

- Email: remediation@cer-rec.gc.ca.
- Subject line: "REM20XX –XXX Notice of Off-Site Migration"

Companies must submit a notice of Company Off-Site Contamination migration whether investigations confirm off-site Contamination, or investigations are inconclusive.

If a company identifies or encounters Company Off-Site Contamination not associated with previously reported Contamination, it must report the Contamination to the CER through a submission of a NOC. Any identification of Company Off-Site Contamination or potential Company Off-Site Contamination must be further assessed. This NOC must be submitted whether assessment confirms Company Off-Site Contamination or is inconclusive.

A company may become aware of their Facilities generating Company Off-Site Contamination, or potential Company Off-Site Contamination that is not associated with reported Contamination, through any number of sources. These may include, but are not limited to:

- the company's monitoring program
- landowner or other potentially affected persons
- another company performing Work
- an application to the CER from another company

After submitting a notice of off-site migration, or a new NOC reporting Company's Off-Site Contamination, the Company's Off-site Contamination must be reported to other regulatory authorities as required by applicable laws.

Companies must comply with all other applicable laws regarding Release reporting for Contamination, including reporting to the appropriate regulators, authorities, landowners, rights holders or stakeholders, and comply with any mitigation or Remediation required pursuant to such applicable laws or authorities.

# 7. Notification and Engagement of Potentially Affected Persons and Communities

The CER requires companies to establish a systematic and proactive approach to developing and implementing project-specific engagement activities. The engagement program must apply throughout the lifecycle of a Facility from Construction through to abandonment.

We require companies to consider whether engagement is required for all sites with Contamination. Depending on the extent of Contamination and on the scope of Remediation, engagement could mean carrying out extensive engagement activities within a community, or it could mean a single activity such as notifying a landowner. Companies must be able to demonstrate the extent of engagement carried out for each site with Contamination is sufficient on a case-by-case basis. We encourage transparency and engagement with all potentially affected persons and communities. In all situations, companies should strive for open communication between all agencies, organizations and persons involved. We require that, at a minimum:

1. All potentially affected persons and communities are notified of the Contamination contemporaneously with reporting to us. If confirmatory sampling of Contamination is required, provided there is no potential risk to human health or safety, companies may wait to notify potentially affected persons, or communities or stakeholders until the sampling results are obtained.
2. All potentially affected persons and communities are provided with:
    a. A summary of the extent of Contamination and the potential for Adverse Effects related to the environment, including the health or safety of persons.
    b. A copy of the Remedial Action Plan (RAP), and/or Risk Management Plan (RMP), and executive summaries of these plans where requested. If a RAP is not required for remedial activities at the site, all potentially affected persons should be notified of the plan for Remediation, including the types of remedial activities proposed, and the timelines prior to being provided with the Closure Report.
    c. A copy of the Closure Report.
    d. Have all concerns heard, considered, and addressed, as appropriate, prior to submission of the Closure Report.
3. When Contamination occurs on privately owned land, or is suspected to have migrated onto privately owned land, in addition to being provided with the information in 2.a, 2.b and 2.c. and implementing the requirement of 2.d, the landowner must:
    a. Be adequately engaged, which includes opportunities to participate in the development and implementation of the RAP and/or RMP and opportunities to participate in the development and implementation of the reclamation plan, and,
4. When Contamination occurs on reserve lands, Metis settlement lands, or is suspected to have migrated onto these lands, in addition to being provided with the information in 2.a, 2.b and 2.c and implementing the requirement of 2.d, Indigenous Peoples and communities must:
    a. Be adequately engaged, which includes opportunities to participate in the development and implementation of the RAP and/or RMP, and opportunities to participate in the development and implementation of the Reclamation Plan.

Section 3 (step 1) of the Early Engagement Guide provides assistance in identifying those persons that may be affected by contamination or activities within the scope of the Work. Potentially affected persons include:

- Indigenous Peoples
- Persons with an Interest in Lands Affected by the Project
- Persons Potentially Affected by the Project
- Government Authorities

**For further guidance on the scope and extent of engagement we require, companies should refer to the following documents that are available on the CER website:**

**CER Early Engagement Guide (Guide L of the CER Filing Manual)**

**CER Filing Manual, Chapter 3.4 (Consultation)**

The CER Early Engagement Guide provides guidance for our expectations for engagement prior to an Application; however, the principles and goals in the CER Early Engagement Guide apply throughout the project lifecycle.

## 7.1 Alternative Dispute Resolution (ADR) Services

The CER encourages open and respectful discussion between companies and people that are affected by CER-regulated Facilities. Through our alternative dispute resolution (ADR) services, we can help companies and potentially affected persons work through disputes and find practical solutions to issues of disagreement concerning remedial activities. ADR is a voluntary, confidential, and interest-based approach for resolving disputes. ADR can happen in parallel with other regulatory processes.

ADR can be requested at any time. Experience shows that successful outcomes are more likely to be achieved the earlier in the process that ADR services are accessed. We can use ADR specialists who have accredited certification in negotiation, facilitation and mediation to assist in evaluating options for resolving issues. Our ADR specialists work with potentially affected persons and companies to design and plan for a process to assist in reaching a mutually satisfactory outcome on unresolved issues.

**Some of the potential benefits of ADR are:**

- it is flexible and supports respectful discussions
- it can lead to mutually acceptable outcomes that are practical and meet specific needs
- settlements are decided by the participants and are not imposed by the CER

Companies and potentially affected persons and communities are encouraged to use our ADR services. If parties are unable to resolve their dispute through their own negotiation efforts, either party may contact us:

**Alternative Dispute Resolution**
**Canada Energy Regulator Suite 210, 517 Tenth Avenue SW**
**Calgary, Alberta  T2R 0A8**
**Email: ADR-MRD@cer-rec.gc.ca**

# 8. Notification of Other Federal, Provincial or Territorial Regulators

Companies may need to involve federal, provincial, territorial or municipal governments in the Work related to contaminated sites at various points throughout the lifecycle depending on local, provincial or territorial laws and policies. Companies must follow all laws; federal, provincial and territorial that apply to them.

Notification or reporting to other local, provincial, territorial or federal regulators must be considered when:

a. Contamination has migrated off-site of All Lands.
b. A potential for migration of Contamination off-site of All Lands exists.
c. Third Party Contamination or potential Third Party Contamination is identified.

Other regulators and authorities must be notified in accordance with applicable laws.

# 9. Third Party Contamination

If companies encounter Third Party Contamination, they must take the following actions:

## 9.1 Report Contamination

a. Report to the CER

Submit a NOC through OERS that clearly identifies the Contamination as Third Party Contamination.

Use the description field under 'Initial Report' in the NOC to identify that Third Party Contamination is being reported. An example of a description of a Third Party Contamination report in OERS is shown in Figure 2 below.

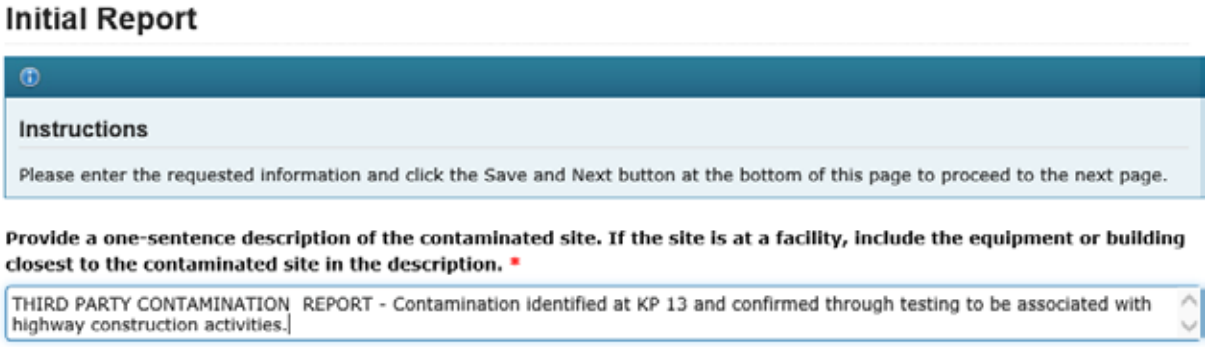



**Figure 2: Description of Third Party Contamination**

Further reporting requirements to the CER will be determined on a site by site basis. This may include submitting a professional consultant's report which provides evidence and documents the rationale that proves the Contamination is Third Party Contamination, and not attributable to the company's Facilities.

b. Notify the landowner

The landowner must be notified of the Third Party Contamination or potential Third Party Contamination. The landowner must also be provided with all the information listed at section 7, item 2. If soil is removed and replaced with comparable soil, the source of the soil and soil quality should be discussed with the landowner.

c. Notify the responsible party or parties

The party or parties responsible for the Third Party Contamination must be notified of the contamination, if the parties are known. Any correspondence to the party or parties responsible should also be sent to the CER and any other appropriate regulatory authorities.

d. Report to other regulatory authorities

The Contamination must be reported to other regulatory authorities as required by applicable laws. Companies must comply with all other applicable laws regarding Release reporting for Contamination, including reporting to the appropriate regulators, authorities, landowners, rights holders or stakeholders, and comply with any mitigation or remediation required pursuant to such applicable laws or authorities.

## 9.2 Manage Contamination

Upon identifying or encountering Third Party Contamination, all impacts that may be caused by disturbing the Contamination during project activities must be adequately investigated, and a plan established to mitigate these impacts. This plan may be requested by the CER Environmental Analyst.

These required actions include, but are not limited to:

a. Take all precautions necessary to ensure worker safety and safety of any other persons.
b. Track and manage On-site Contamination:
    i. Contaminated soil, and contaminated liquids, which are disturbed or moved during the Work cannot be placed back into the environment.
    ii. Contaminated soils and/or liquids must be transported off-site and disposed of pursuant to applicable laws, unless otherwise specifically exempted from such requirements pursuant to permits issued by regulatory authorities.
    iii. Uncontaminated soil must be confirmed (with analytical data) to meet regulatory Remediation Criteria before being used to replace any contaminated material removed from the site. All reasonable efforts should be made to source soil of a quality which meets the needs of the landowners to maintain or improve equivalent land capability.
c. Implement potential mitigation measures to *prevent* the project activities from:
    iv. Increasing the migration potential of any On-site Contamination.
    v. Providing a conduit for Contamination migration.
    vi. Allowing Contamination in soil or groundwater to create further impacts to lands, water or Receptors, including but not limited to water wells.
d. We may require further remedial actions be taken to protect the environment, including human health and safety, on a case-by-case basis.

**Find the table for Contamination Scenarios and Required Actions in Appendix E (see Table 18.7)**

# 10. Environmental Site Assessment

Various terminology is used across Canada to describe the investigation undertaken to assess site conditions and characterize and delineate Contamination (e.g.: Environmental Site Assessment, Phase II, Phase III, Screening Level Assessment, etc.). The term Environmental Site Assessment (ESA) will be used in this Guide. An ESA must characterize the site and Contamination sufficiently to support the proposed remedial activities, including but not limited to the RAP, RMP and Closure Report.

For direction on environmental site assessment, refer to the *CCME Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment*. The appropriate level of ESA must be conducted prior to Remediation of a site with Contamination. The CER Environmental Analyst may request supporting documentation upon review of the Remediation event. Find Guidance on conducting a Phase II ESA in CSA Z769-00 Phase II Environmental Site Assessment.

Elements of an ESA typically include, but are not limited to:

a. An intrusive site investigation resulting in site characterization.
b. Delineation of the Contamination in soil and groundwater vertically and laterally.
c. Calculations of volume of impacted soil and extent of impacted groundwater.
d. Identification of Remediation Criteria and remedial options analysis.
e. Comparison of the contaminant concentrations to a clearly justified set of Remediation Criteria applicable to that site.

If Contamination is cleaned up immediately upon detection and an ESA is not completed, companies must provide an appropriate level of site information in the Closure Report to justify the selected Remediation Criteria, and to demonstrate that the Remediation Criteria have been met. Companies must be able to provide justification acceptable to the CER, for the omission of an ESA.

Detailed results in the ESA are required to support the development of Site-Specific Remediation Objectives, up to and including a Risk Assessment and/or Risk Management (discussed in sections 12 and 11.6 respectively). The ESA must provide sufficient information to develop an appropriate RAP.

# 11. Remedial Action Plan (RAP)

A Remedial Action Plan (RAP) is a document that describes in sufficient detail how Remediation of a site with Contamination will occur. The timeline of RAP submission to the CER should be provided in the annual updates. If the plan is to conduct remedial activities without a RAP submission, the rationale for not completing a RAP must also be provided in the annual updates. The rationale should be based upon the responses to questions in Appendix C. The CER will make the final decision as to whether a RAP is required based upon a combination of factors related to the complexity, and risk of the site, as described in the:

- NOC
- CCME site classification worksheets
- responses to questions in Appendix C

The CER Environmental Analyst will exercise professional judgement as to whether a RAP is required, on a case-by-case basis. We may require supplemental information from the company in order to make this determination.

## 11.1 RAP Requirements

If the CER Environmental Analyst agrees with the company's rationale not to complete a RAP and instead submit a Closure Report following Remediation, the company **assumes the risk (and associated costs)** of the remedial actions, and selected Remediation Criteria not being accepted by the CER. In this situation, the company may be required to do additional Work or take different remedial actions or approach altogether. Companies are encouraged to contact the CER Environmental Analyst assigned to the REM event by sending an email to remediation@cer-rec.gc.ca, using the "Company Note" functionality within OERS, or sending a direct email to the CER Environmental Analyst to discuss any questions around appropriate Remediation Criteria.

This Guide contains Appendix C Assessment Guide for RAP Requirement. This Appendix provides examples of the type of information that our Environmental Analyst will consider in determining whether a RAP is required, or whether it is appropriate to proceed directly to the Closure Report. Companies are encouraged to consult the CER Environmental Analyst to discuss the complexity and detail required in a RAP prior to its development.

**Find the Assessment Guide for RAP Requirement in Appendix C.**

## 11.2 RAP Contents

Every site with Contamination is unique. We require companies to submit information relevant to the nature, scale and complexity of Remediation at that specific site. The company will also be expected to demonstrate how it has and will continue to anticipate, prevent, manage and mitigate the hazards and potential hazards and the Risks associated with the site with Contamination.

The company should submit the completed Remediation Action Plan Worksheet to the CER with the RAP. If any of the RAP components are not included in the RAP, provide justification for the omission in the "Notes" section of the worksheet.

**Find the worksheet for RAP Contents in Appendix F.**

## 11.3 CER Acceptance of the Remedial Action Plan (RAP)

After submitting the RAP to the CER, our Environmental Analyst assigned to the remediation event will review the document.

The RAP will be evaluated based upon the following criteria:

- completeness
- consistency with the CER's knowledge of the site
- conceptual site model understanding
- adequate delineation conducted to fully identify and assess hazards or potential hazards
- Receptors have been identified and the Risk to sensitive Receptors assessed
- selection of Remediation Criteria
- adequate supporting information for the proposed approach
- remedial option selected is appropriate
- follows industry best practices
- concerns from other regulators and potentially affected persons are addressed

If the RAP is found to be acceptable, we will send an email notification through OERS that the RAP has been accepted. We may also issue an acceptance with minor amendments required. The acceptance indicates the company and the CER have established remediation expectations. Acceptance puts the site on course for anticipated closure once the Remediation program, closure reporting and our assessment are complete.

A company must always take appropriate action to protect the environment including human health, and safety, commensurate with the hazard posed. If the RAP is found to be unacceptable, we will send an email notification through OERS that it has been rejected. The rejection email via OERS will outline the next steps, and that a new RAP may be required.

As the period between acceptance and the submission of the Closure Report may be long, on the scale of years, it is possible that hazards or nearby Receptors change, or new information is identified following submission of the RAP. At any time prior to, during, or following the RAP acceptance, we may request further details on remedial activities or site conditions to assist in determining whether the approach remains protective of the environment, including human health and safety.

We recommend that companies obtain the CER's acceptance of a RAP prior to initiating the remedial Work described therein. If a company starts remedial Work before getting a RAP approved, the company assumes the cost and risk that remedial Work and/or the selected Remediation Criteria may not be sufficiently protective of the environment, including human health and safety, as deemed by the CER. In this situation, the company may be required to conduct further remedial Work or provide additional justification. In addition, a re-evaluation of the selected Remediation Criteria may be required before we issue a site closure.

We encourage continual improvement practices within companies' environmental management programs and activities. The company must notify us of any amendments to the RAP that are made following acceptance via an email to remediation@cer-rec.gc.ca.

These amendments include, but are not limited to:

a. A change in the scope of the RAP.
b. A change in timelines for Remediation.
c. The addition of a Risk Assessment or Risk Management component.

The intent of a RAP amendment is to encourage engagement and transparency between the company and the CER. An amendment should be submitted as soon as possible. Prior to submitting a RAP amendment, all potentially affected persons and communities must be engaged on the proposed changes.

Amendments to the RAP are subject to new review and acceptance or rejection by our Environmental Analyst.

## 11.4 Remediation Criteria

For the equivalent land use, the company is required to follow the **most stringent applicable generic Remediation Criteria** between a. and b. below:

a. Generic Remediation Criteria established by the province or territory where the site of Contamination is located.
b. Generic Remediation Criteria established by the Canadian Council of Ministers of the Environment (CCME) standards and guidelines.

Provincial or territorial, and CCME sets of criteria, are typically established for various types of land use based on generic assumptions with respect to site characteristics, potential Receptors and applicable exposure pathways. The primary objective is that human and ecological Receptor exposures are maintained at, or below, levels where Adverse Effects are not expected to occur. Typical land use categories are industrial, commercial, residential, parkland, and agricultural. These categories and other factors vary across the provinces and territories; thus, criteria selection and Remediation Work must be adapted to each jurisdiction's definitions and approach.

We expect Remediation Criteria to be applied based on the actual operational land use. In scenarios where jurisdictional authority defines zoning bylaws that do not correspond directly with the actual land use, industrial criteria may be acceptable if an acceptable justification is provided. The justification must include consideration of the Risk to Receptors of the more sensitive land use in the context of the conditions specific to the site. For example, an industrial operating Facility with a contaminated site that is located on land zoned for commercial as well as industrial businesses may apply industrial criteria if the site assessment of Risk to the more sensitive Receptors of commercial land use (e.g., customers) conducted by a qualified professional concludes the risk to be low. The low risk level assignment must be agreed upon by the CER Environmental Analyst. If Company Off-Site Contamination is present outside of the Company Owned or Leased Lands, the Remediation Criteria of the more sensitive land use must be applied.

If there is Contamination identified on the RoW, the most stringent applicable Remediation Criteria based on the current land use crossed by and adjacent to the RoW must be followed both on and off the RoW. Remediation Criteria current at the time of remedial activity must be applied. If Remediation Criteria are updated between the times the RAP is accepted and the Remediation begins, the RAP must be updated to reflect the most current Remediation Criteria.

For each contaminant of concern, the applicable provincial or CCME generic Remediation Criteria should be identified, and the more stringent of the two selected as the Remediation criterion (unless an exception to the application of generic Remediation Criteria exists as described in section 11.5).

## 11.5 Limited Exception to Application of Generic Remediation Criteria

The generic Remediation Criteria referenced in section 11.4 may not apply in situations where the company can justify and demonstrate one or more of the following:

- national, provincial or territorial Remediation Criteria for a contaminant do not exist
- remediation to generic Remediation Criteria is not feasible for the targeted land use
- generic Remediation Criteria are not appropriate given the site conditions (e.g., local or regional conditions or the contaminant situation are significantly different from what was considered in the development of generic Remediation Criteria, or exposure pathways are not present, such that the generic Remediation Criteria are not applicable, under conservative or over conservative)
- sensitive receptors that require special consideration have been identified

If generic Remediation Criteria are demonstrated to not apply at a site, as agreed upon by the CER Environmental Analyst, the following may be permitted: Site-Specific Remediation Objective development; Risk Assessment; and/or Risk Management.

## 11.6 Site-specific Remediation Objectives and Risk Assessment

If the company clearly justifies why the site conditions permit or require Site-Specific Remediation Objectives during Remediation, the RAP may instead accommodate Site-Specific Remediation Objectives rather than generic Remediation Criteria. Site-Specific Remediation Objectives may be developed by any of the following:

- adjusting generic Remediation Criteria with site-specific information
- exclusion of exposure pathways that are not present
- completion of a Risk Assessment, as may be required

In addition, it may be possible to develop criteria for contaminants without Remediation Criteria or where exposure scenarios at a site are not protected by generic Remediation Criteria.

A qualified professional must provide justification for the use of Site-Specific Remediation Objectives and additional site data to support the application of Site-Specific Remediation Objectives. The justification will be assessed by the CER Environmental Analyst at their discretion. Site-Specific Remediation Objectives that are less conservative than generic Remediation Criteria may be acceptable only where sufficient data is provided to demonstrate that environmental and human health protection goals will be met without ongoing management or restriction of site use.

The CCME and Health Canada approach to Risk Assessment is recommended; however, provincial approaches may be acceptable. The CCME approach to ecological risk assessment can be found in the document entitled *Ecological Risk Assessment Guidance Document*. Health Canada provides guidance for human health risk assessment in *Federal Contaminated Site Risk Assessment in Canada: Part I through Part VII*. For the CCME approach to site characterization, refer to the document entitled *CCME Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment*.

Appendix D provides a brief summary of the information that should be included in an ecological and human health Risk Assessment. To verify your approach, we strongly recommend consulting with the assigned CER Environmental Analyst prior to commencing Work or submitting the RAP. To contact the assigned CER Environmental Analyst, send an email to remediation@cer-rec.gc.ca with the REM event number in the email subject line.

**Find the worksheet for Risk Assessment in Appendix D. Risk Management is discussed in section 12.**

# 12. Risk Management

A Risk Management approach may be acceptable for sites where complete removal of Contamination to mitigate Risk is unachievable. Risk Management for the Remediation process involves the selection and implementation of a multi-faceted approach, often consisting of partial Remediation. It also includes a Risk Control strategy for the residual Contamination that remains at the site. Risk Management may be acceptable in the situation where Contamination is inaccessible, for example due to the presence of operating energy infrastructure. In such circumstances, free product and targeted source zone pockets of contaminated groundwater and/or soil may be removed, while risks associated with remaining Contamination would be managed pending removal or abandonment of the infrastructure. A Risk Management approach may also be acceptable in situations where the site with Contamination is well characterized, and controlling the risk of exposure is a more environmentally sustainable option compared to complete removal of contaminants. Risk Management may be required to prevent unacceptable risks during Remediation.

The decision to select a particular Risk-based strategy must be informed by environmental site assessments and Risk Assessment principles, as well as by input from potentially affected persons.

Examples of Risk Management strategies that we may accept include actions that reduce the probability, intensity, frequency or duration of exposure to Contamination through soil, water or air/vapour pathways. Requirements of Risk Management include periodic evaluation of the proposed strategy's effectiveness. It also requires ongoing evaluation of any changes in site conditions, and current policies and guidance pertaining to Risk Assessment and Risk Management. We expect that Risk Assessment and Risk Management approaches for a site would be re-evaluated and potentially amended if further site information or changes in policy or guidance indicate the conclusions reached may change. Companies must use monitoring to maintain continued awareness and confirmation of the extent of Contamination (vertically and horizontally) and migration throughout the Risk Management process. This may require long term monitoring. Requirements for monitoring will vary on a site by site basis. We will likely not accept Risk Management strategies involving controls such as zoning designations, land use restrictions, or bylaws. These strategies involve measures that are outside CER jurisdiction.



## 12.1 Risk Management Plan (RMP) Contents

If the results of the ESA indicate that Risk Management is the best approach for a particular site, the company should engage the CER Environmental Analyst at the earliest possible stage. We **strongly recommend** that consultation with our Environmental Analyst regarding the intent to develop a RMP should take place before the plan is submitted. This will ensure the company is aware of the CER's expectations and requirements, and ultimately whether we will approve a RMP.

Every site with Contamination is unique. We require companies to submit information that is relevant to the nature, scale and complexity of Risk Management at that specific site. The detail and formality of the RMP should be consistent with the site complexity and circumstances.

The company will also be expected to demonstrate how it has, and will continue to, anticipate, prevent, manage, and mitigate hazards and potential hazards, and Risks associated with the site with Contamination.

Submit the completed Risk Management Plan (RMP) Worksheet to the CER with the RMP. If any of the RMP components are not included in the RMP, companies must provide justification for the omission in the 'Notes' section of the Worksheet.

Following the review of the RMP, the CER Environmental Analyst may determine that specific conditions will be associated with acceptance of the RMP.

**Find the Risk Management Plan (RMP) Worksheet in Appendix G.**

## 12.2 CER Acceptance of the RMP

After companies submit a RMP to the CER, the Environmental Analyst who is assigned to the remediation event will conduct a review of the document. If the RMP is accepted, we will send an email notification through OERS that the RMP has been accepted. When the CER Environmental Analyst accepts the RMP documents, the company and the CER have established Risk Management expectations.

Acceptance of the RMP, at our discretion, relies on the following two principles supported by ongoing environmental monitoring, that both:

a. The site model and nature of the impacts on the site do not change from the parameters initially described on the date the RMP was accepted.
b. Risks to Receptors are deemed to be acceptably low over the time period between the present and the future date when the remaining Contamination is removed, or contaminant levels naturally attenuate to the point that Remediation Criteria are met.

Site closure will not be granted for sites which are undergoing Risk Management. Companies must implement a Risk Management strategy to manage residual Contamination. They must continue to provide annual updates on Risk managed sites, potentially with a greater level of detail than standard annual updates for sites with Contamination undergoing remedial activities.

Companies must always take appropriate action to protect the environment, including human health and safety, commensurate with the hazard posed. If the CER does not accept the RMP, we will send an email notification through OERS that the RMP has been rejected. The rejection email via OERS will outline the next steps. A new RMP may be required.

## 12.3 Contamination Identified on Company Owned or Leased Lands

Where Contamination is identified within a Facility on Company Owned or Leased Land, the Contamination must be reported as detailed in section 6.1.

The CER expects accessible contamination to be remediated while recognizing that it may not be feasible to fully remediate all contamination during operations, particularly contamination that is in close physical proximity to operating Facility infrastructure. The company may manage Contamination without an immediate requirement to submit a RAP or RMP if all of the conditions below are met:

a. Contamination is confined to a Facility on Company Owned or Leased Land that has an implemented groundwater and surface water monitoring program.
b. No free product is detected in the groundwater monitoring wells
c. Contamination does not pose an adverse effect or potential adverse effect to the environment including human health or worker safety.

The groundwater and surface water monitoring program must include both of the following:

1. Routine monitoring and sampling, and an annual review and interpretation of the resulting data to assess any changes in conditions.
2. A process for identifying and implementing any recommended changes to the program (in response to changing contaminant concentrations, environmental conditions or Receptors, Remediation Criteria, operating parameters, etc.).

The groundwater monitoring network must be designed to proactively measure contaminant movement from the site (e.g., groundwater wells screened in relevant depth intervals downgradient from the source of Contamination). The company must continue to meet any regulatory requirements with respect to the Contamination, including measures to anticipate, prevent, manage and mitigate conditions that could adversely affect the environment per section 48 of the *Onshore Pipeline Regulations* (OPR), or section 14 of the *Processing Plant Regulations* (PPR). We may request a review and evaluation of the groundwater and surface water monitoring program at any point in time during the site or Facility's lifecycle. This is to ensure the groundwater monitoring program is meeting its required end result.

Company actions on Company Owned or Leased Lands may include remediation of select areas of Contamination to manage liabilities while addressing Contamination that becomes accessible as Facility infrastructure is removed, or replaced, and implementing controls to prevent spreading or migration of Contamination. Prior to abandonment of

the Facility, the company must remediate all Contamination in compliance with abandonment order conditions.

Contamination that is confined to Company Owned or Leased Lands at a Facility will need to be further characterized through completion and submission of the CCME National Classification System for Contaminated Sites: Site Classification Worksheets.

Companies must provide an annual update as described in section 13 of this Guide. If free product is identified in groundwater wells or soil, or there is an indication that Contamination may be migrating off Company Owned or Leased Lands, companies must notify us as soon as possible along with a contingency plan with proposed mitigation actions.

Email the notification to remediation@cer-rec.gc.ca; and it will be reviewed by the assigned Environmental Analyst.

**Find the scenarios for Contamination on Company-Owned or Leased Lands in Appendix E. (See Table 18.6.)**

# 13. Annual Updates

**An annual update is required for all sites with Contamination that are submitted to the CER by December 31 of the previous calendar year, and have not yet achieved site closure. An automated notification to complete the annual update will be sent on April 1 each year. The due date for the information to be entered into OERS is June 30.**

# 14. Site Closure

The following sections outline the documentation required to achieve closure of a site with Contamination. Site closure is achieved upon the CER's issuance of a Remediation Closure Letter. The Remediation Closure Letter confirms that the company has sufficiently demonstrated that the acceptable Remediation Criteria and all conditions, as outlined in the RAP and RAP acceptance letter have been met, based upon the information submitted in the Closure Report, and that the Remediation event has been closed. If a RAP was not submitted, the Remediation Letter confirms that the company has sufficiently demonstrated that the acceptable Remediation Criteria have been met based upon the information submitted in the Closure Report.

After we issue a Remediation Closure Letter, the company is no longer required to provide annual updates on these sites. All regulatory requirements outside of the Remediation context continue to apply to the Project after site closure is granted.

A Remediation Closure Letter will not be issued if the site is undergoing Risk Management, as described in section 12 of this Guide.

The company must submit both of the documents below to apply for site closure:

- Closure Report
- Declaration Letter

## 14.1 Closure Report

A company must submit a Closure Report once the remedial activities, including any required monitoring, are complete. The level of detail in the Closure Report should match the scope of the Remediation required.

The completed Closure Report Worksheet should be submitted to the CER with the Closure Report. If any of the Closure Report components are not included in the Closure Report, provide justification for the omission in the "Notes" section of the worksheet.

**Find the Closure Report Worksheet in Appendix H.**

The CER may request additional information from the company, and may refer the Closure Report to other regulators or potentially affected persons for comment.

## 14.2 Declaration Letter

The Closure Report must be accompanied by a Declaration Letter signed by the accountable officer of the company, as defined in section 6.2 of the OPR, or where there is no *accountable officer* required pursuant to the OPR, an officer or director of the company which is the permit holder of the facility to which the closure letter relates and who is best suited to execute in accordance with the CER Accountable Officer Selection Flowchart[2], confirming all of the following:

1. All remedial activities were conducted in accordance with the Remedial Action Plan and/or Risk Management Plan, if applicable, and the Closure Report. If Work was not conducted in accordance with these documents, detailed reasons for deviation were included in the Closure Report.
2. The contaminants specified in the Closure Report were remediated to the more stringent of federal or provincial generic Remediation Criteria for the appropriate land use or the established Site Specific Remediation Objectives as stated in the Remedial Action Plan and/or Risk Management Plan, if applicable, and the Closure Report.
3. Any commitment by the company to the CER or to potentially affected persons regarding Remediation of Contamination and additional mitigation has been met. In the event the commitment was not met, a detailed statement was included in the Closure Report as to why this commitment could not be or was not met.
4. All potentially affected persons were notified of the Contamination and remedial activities and engaged on the plans for Remediation and site closure in compliance with section 7 of the *CER 2020 Remediation Process Guide*. In the event this requirement was not met, a detailed statement was included in the Closure Report as to why this requirement could not be or was not met.
5. Any outstanding concerns identified by potentially affected persons or other regulators, and actions to address these concerns, or an explanation as to why no further action is required to address these concerns or comments, have been described in the Closure Report.

**Find the template for the Declaration Letter in Appendix I.**

## 14.3 CER Acceptance of Site Closure

Once satisfied that Remediation to acceptable Remediation Criteria is complete, the CER will issue a Remediation Closure Letter by email, and send an automated notification. We expect companies will distribute the Remediation Closure Letter to potentially affected persons and communities involved in the site throughout their engagement activities.

The issuance of a Remediation Closure Letter establishes that no further actions are required by the CER to manage Contamination as per the date of issuance of Remediation Closure Letter *unless* any of the following exceptions apply anytime on or after the issuance of the Remediation Closure Letter:

i. A change occurs in site conditions or site understanding such that conclusions reached in the Closure Report may not be valid.
ii. Relevant information is provided to the CER, or becomes available which was not identified in the Closure Report.
iii. A change occurs in regulatory criteria, standards or guidelines or applicable laws such that conclusions reached in the Closure Report may not be valid.

2. https://www.cer-rec.gc.ca/bts/ctrg/gnnb/nshrppln/ccntblffcrslctnprcss-eng.html

In the situation that any of these exceptions apply, further actions may be being required of companies/permit holders to manage Contamination. Companies retain liability for potential further Remediation following site closure related to their Facilities.

We require companies to reclaim the land to a state comparable with the former or other productive use. The landowner must be engaged upon the plans for Reclamation and any concerns must be heard, considered, and addressed, as appropriate, prior to submission of the Closure Report. These concerns must documented and submitted to the CER in the record of engagement section of the Closure Report The company must comply with all commitments and conditions regarding Reclamation, as described in the RAP and Closure Report or as specified by the company, and all conditions regarding Reclamation as issued by the CER in the RAP acceptance email and/or Remediation Closure Letter.

# 15. Remediation during Abandonment Activities

Companies are required to manage and remediate Contamination throughout the lifecycle of the Facility. Companies must identify, assess and remediate Contamination that occurs during the construction and operational phases of the lifecycle, and prior to abandonment of a Facility. If it is not reasonably possible to complete the Remediation prior to abandonment (for example, due to the presence of operating infrastructure in a shared pipeline corridor), the CER requires that companies complete Risk Management of the site with Contamination until such time that it can be remediated, and the pipeline abandoned. See section 12 for more information on our requirements for Risk Management of Contamination.

Remediation of Contamination during abandonment activities must comply with conditions on the abandonment order, as well as this Remediation Process Guide.

## 15.1 Contaminated Sites Information Submitted in the Application to Abandon

When companies apply to abandon under section 241 of the *Canadian Energy Regulator Act*, they should provide the information below:

1. A copy of the Phase I Environmental Site Assessment conducted for the pipeline and right-of-way, as per the guidance in the most recent version of CSA Standard Z768.
2. A list of sites with Contamination that have been reported previously to the CER, which must include the assigned REM event numbers associated with the project in the application to abandon.
3. If the results of the Phase I ESA indicate that a Phase II ESA is warranted, include a copy of the Phase II ESA plan that describes the procedures to be implemented for investigating all existing or potential Contamination identified in the Phase I ESA, including sampling methodology.

If Contamination is confirmed following a Phase I ESA, the Contamination must be reported to the CER through a NOC, as described in section 6.1 of the Guide.

In the application to abandon, companies must consider the presence of Contamination when assessing whether a pipeline will be removed or abandoned in place. If abandoning a pipeline in place would prevent full Remediation of Contamination, the Commission of the CER (Commission) may require the removal of this pipeline. CSA Z662-19 10.16 further describes the requirements for abandonment of buried pipelines, surface equipment related to buried pipelines, above ground pipelines, pipeline related Facilities, underground vaults and closed top pits, above ground tanks and pressure vessels and underground tanks.

Guide B in the CER Filing Manual provides additional filing requirements and guidance for pipeline abandonment applications.

### 15.2 Contaminated Sites Information Submitted as a Condition Filing to an Abandonment Order

Following the submission of an application to abandon, the Commission assesses the abandonment application and, if approved, issues the abandonment order with terms and conditions for permanently ceasing operation of the pipeline. One condition routinely included on an abandonment order is the requirement to submit a Reclamation Report. The Reclamation Report should include copies of any Remediation Closure Letter(s) issued for reported Contamination associated with that Facility.

### 15.3 Financial Liability for Remedial Activities

The CER requires companies to set aside money to pay for abandonment Work. For a pipeline abandoned in place (abandoned pipeline), the company maintains responsibility and liability for the abandoned pipeline. The company must keep funds available to pay for any costs that arise in relation to the abandoned pipeline, including further remedial activities. In accordance with section 241(5) of the CER Act, a company that has been granted leave to abandon a pipeline continues to be liable for the abandoned pipeline under this Act.

# 16. Contact Information

To provide feedback or ask a question regarding the Guide, email remediation@cer-rec.gc.ca.
Direct other inquiries to:

**Address:** **Canada Energy Regulator**
**Suite 210, 517 Tenth Avenue SW**
**Calgary, Alberta**
**T2R 0A8**

**Telephone:** **403-292-4800**

**Toll free:** **1-800-899-1265**

# 17. References


*Canadian Energy Regulator Act* (S.C. 2019, c. 28, s. 10).

*Canadian Energy Regulator Onshore Pipeline Regulations* (SOR/99-294).

*Canadian Energy Regulator Processing Plant Regulations* (SOR/2003-39).

*Canada Oil and Gas Operations Act* (R.S.C., 1985, c. O-7).

*Canada Oil and Gas Drilling and Production Regulations* (SOR/2009-315).

CCME. 2020. Ecological Risk Assessment Guidance Document. PN 1585.

CCME. 2016. Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (volumes 1 through 4). Canadian Council of the Ministers of the Environment, Winnipeg. PN 1551, 1553, 1555 and 1557.

CCME. 2008. National Classification System for Contaminated Sites: Guidance Document. Canadian Council of Ministers of the Environment, Winnipeg. PN 1403.

CSA (R2016) Phase I Environmental Site Assessment (Z768-01). Toronto. Canada: Canadian Standards Association.

CSA (2013) Phase II Environmental Site Assessment (Z769-00). Toronto. Canada: Canadian Standards Association.

CSA Z662:19 (2019). Oil and Gas Pipeline Systems. Toronto. Canada: Canadian Standards Association.

DFO (Fisheries and Oceans). 2011 Framework for Addressing and Managing the Aquatic Contaminated Sites under the Federal Contaminated Sites Action Plan (FCSAP).

Environmental Management Act, SBC 2003, c. 53, retrieved on 20 April 2020.

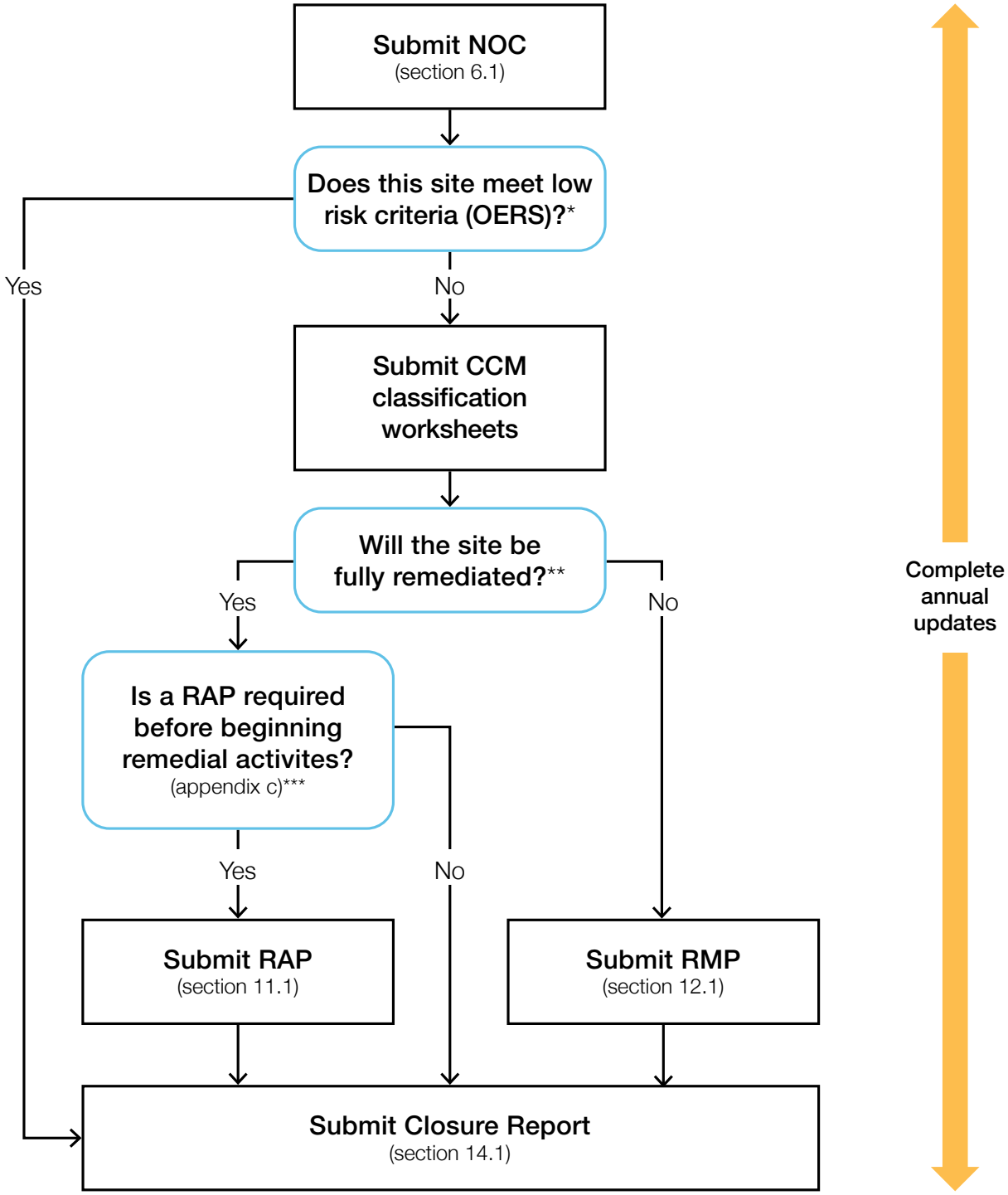
Health Canada (2010) *Federal Contaminated Site Risk Assessment in Canada, Part I –IV*. (https://www.canada.ca/en/health-canada/services/environmental-workplace-health/contaminated-sites/guidance-documents.html). Retrieved 6 August 2020.

*Oil and Gas Operations Act* (S.N.W.T. 2014, c. 14).

*Oil and Gas Drilling and Production Regulations* (R-027-2014).

# 18. Appendices

## Appendix A Remediation Process for Contamination




* As determined by the CER based on company responses to the screening assessment questions in the NOC in OERS

** The CER expects full remediation unless site conditions indicare that this is not the most environmentally protective approach or operating infrastructure prevents full remediation, as determined by the CER. In these cases, the contamination will require risk

*** Appendix C provides and example of the nformation that should be considered in determining whether a RAP is required. The CER Environmental Analyst will make the final determination

**Figure A.1: Remediation Process flowchart for Contamination identified on the right-of-way**

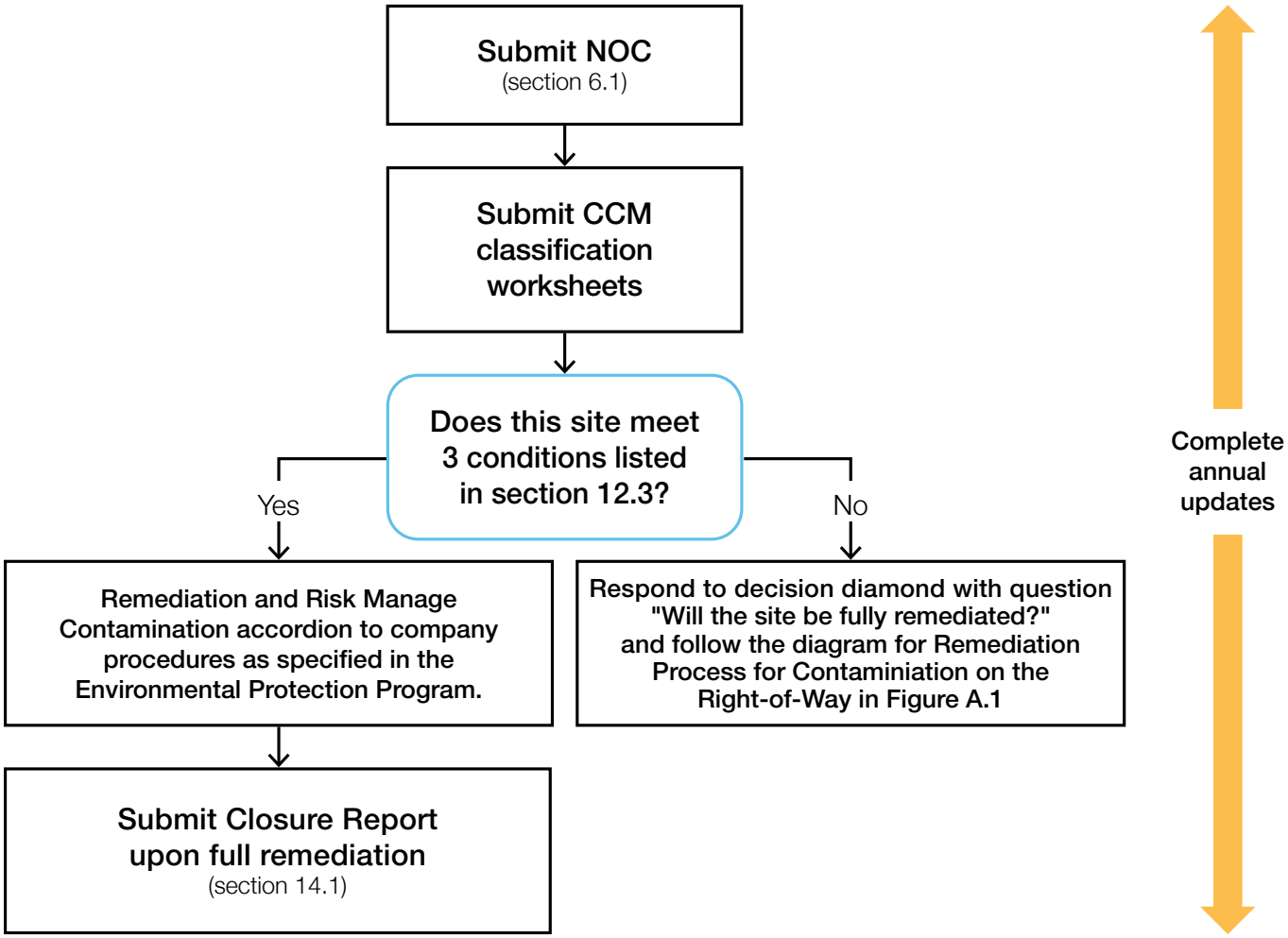
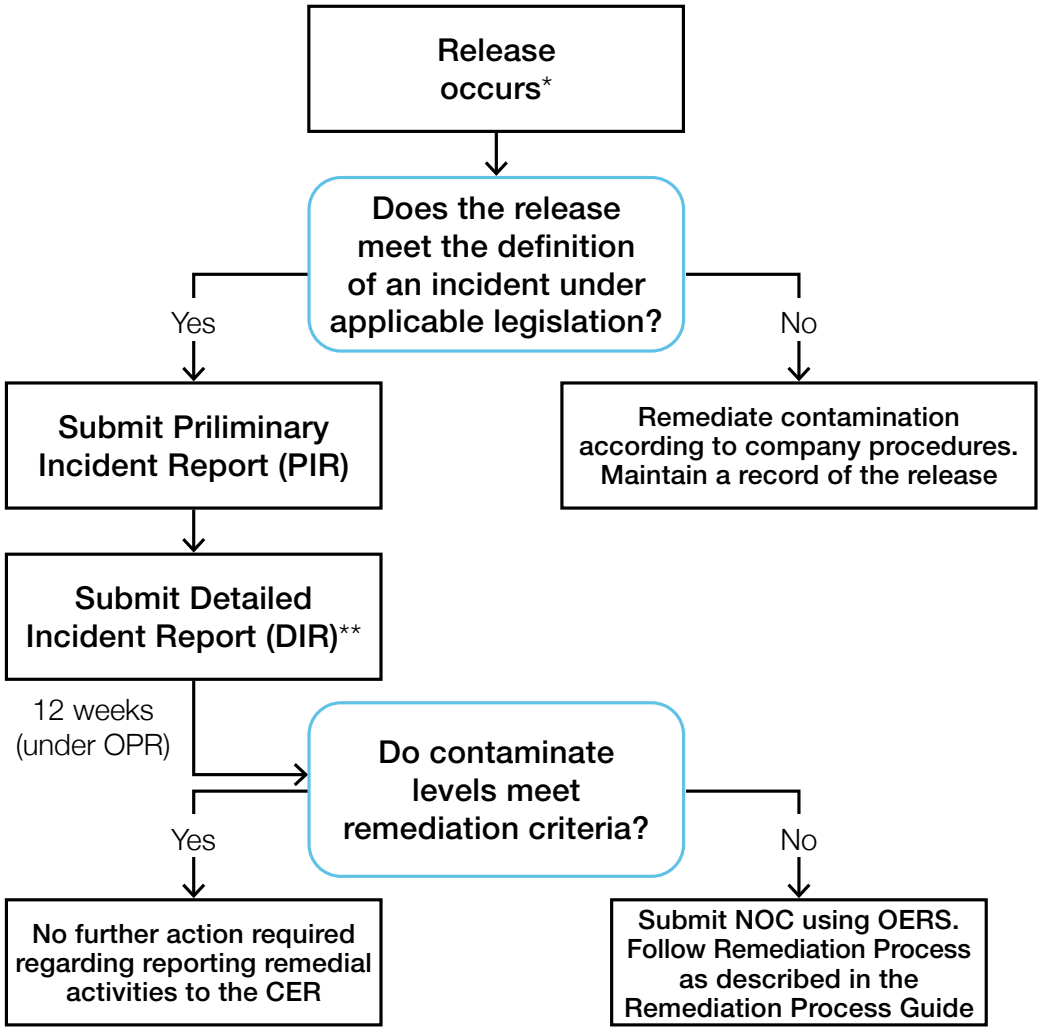



**Figure A.2: Remediation Process flowchart for Contamination identified on Company Owned or Leased Lands**

Notes for Figure A.1 and Figure A.2:

1. At any time throughout this process, the CER Environmental Analyst may issue an information request (IR) or recommend to the CER compliance program manager that a compliance verification activity be carried out. A compliance verification activity could include a field inspection or compliance meeting and lead to enforcement actions, when required.
2. As described in sections 11.3 and 12.2, the RAP and/or RMP will be reviewed and upon a satisfactory assessment, accepted by the CER Environmental Analyst. The CER Environmental Analyst may require further information, plan revisions or require certain conditions be met prior to RAP or RMP acceptance.
3. As described in section 14.3, the Closure Report will be reviewed by the CER Environmental Analyst. Upon a determination that the Closure Report is satisfactory to the CER Environmental Analyst, a recommendation will be made to the CER Director of Environmental Protection to issue a Remediation Closure Letter for the site. The CER Director of Environmental Protection will make the final decision to issue the Remediation Closure Letter.




* This release refers to a **recent**, known, release where the subsequent actions take place immediatelt following the release

** The DIR for release contains two questions related to the need for further remedial activities, including the question shown in the linked blue rectangle.

**Figure A.3: A summary of the steps involved in transitioning a Release that is reported as an Incident to Remediation of a site with Contamination under the CER Remediation Process**

# Appendix B Concordance Tables

Concordance tables will be required for Appendix F, Appendix G, and Appendix H.

### Table 18.1: Remediation Criteria and Result Template

| Contaminant of Concern | Land Use | Applicable Federal guideline (mg/kg) | Applicable Provincial Guideline 3 (mg/kg) | Soil Remediation Criteria Selected (mg/kg) |
|---|---|---|---|---|
| Benzene | Agricultural, as described in sections XX of the submitted report | 0.0068 [3] | 0.046 [4] | 0.0068 |
| Fraction 2 | Agricultural, as described in sections XX of the submitted report | 150 [5] | 150 | 150 |

Table 18.1 provides an example of the information for companies to include in the Concordance Table. The Concordance Table should include only a high level description with references to the location in the reports that provide details. This example includes only Remediation Criteria for soil; the Concordance Table should include tables with Remediation Criteria for Contaminants of Concern in all relevant media (e.g., groundwater, sediment). The Concordance Table in the RAP should be updated as required for inclusion in the Closure Report. An example of content to include in the Closure Report is below:

**Supporting Information for Remedial Endpoint Selection**

Soil Texture: FINE, as demonstrated with textural analysis in section XX of the report, and borehole logs in Appendix X of the submitted report.

### Table 18.2: Company Commitments Related To Site Remediation

| Issue | Objective | Results | Notes |
|---|---|---|---|
| Creek restoration including installation of erosion matting | Creek restored to condition equivalent to condition prior to remedial activities. Landowner is satisfied with restoration activities. | Creek restored and landowner satisfied with condition of restored creek. | |

**Table 18.2 provides a summary of commitments related to Remediation of the site with Contamination, if relevant.**

References for Guidelines Considered


3. Canadian Council of Ministers of the Environment. 204. Canadian Environmental Quality Guidelines, Benzene Factsheet
4. Alberta Government. 2019. Alberta Tier 1 Soil and Groundwater Remediation Guidelines
5. Canadian Council of Ministers of the Environment. 2008. CCME Canada Wide Standards for PHC in soil

# Appendix C Assessment Guide for RAP Requirement

After companies submit a NOC in OERS, and CCME classification worksheets for Contamination encountered on the RoW, the next step required most often is the development and submission of a RAP. Companies are expected to develop and implement a RAP. Read more about the requirements for the Next Steps after Reporting Contamination in section 6.2.

A RAP may not be required if justification is provided indicating that Contamination can be remediated to generic criteria, and Contamination presents little Risk to Receptors. In this case, after submitting the NOC, CCME site classification worksheets, and subsequent completion of Remediation, the next step is submitting a Closure Report to the CER. Justification for not completing a RAP should be included in the annual update. If a RAP is not developed and submitted to the CER for acceptance, we do not provide any assurance that the remedial activities or selected Remediation Criteria described in the Closure Report will be accepted.

The questions in Table 18.3 provide examples of the type of information the Environmental Analyst considers in determining whether a RAP is required, or whether it is appropriate to proceed directly to Remediation, followed by submitting a Closure Report. Table 18.3 also provides examples of the type of information that should be included in the justification for why a RAP may not be required. The Environmental Analyst will exercise professional judgement in deciding whether a RAP is required, based upon information submitted in the NOC, CCME worksheets, annual updates and any additional relevant information requested by the CER. Responding in the affirmative to the questions in the table below indicates a RAP may be required.

Read more about RAP Requirements in section 11.1.

**Table 18.3: Worksheet That Indicates a RAP May be Required**

| Need for a Remedial Action Plan | Response | | Notes |
|---|---|---|---|
| | Yes | No | |
| **Questions** | | | |
| 1. Will the site be remediated to Remediation Criteria other than to generic Remediation Criteria based on contaminant type, land use and soil grain size? | ☐ | ☐ | |
| 2. Are the soil laboratory results 10× higher than the most stringent applicable generic Remediation Criteria? | ☐ | ☐ | |
| 3. Does the Contamination pose a significant Risk to human health or safety? | ☐ | ☐ | |
| 4. Is there a potable surface water or groundwater source within 300 metres? Is the site underlain by a usable drinking water aquifer? | ☐ | ☐ | |
| 5. Is the Contamination within 500 m of residential or commercial land use? | ☐ | ☐ | |
| 6. Does the Contamination pose a significant Risk to ecological Receptors (e.g. vegetation, wildlife, crops, watercourse, etc.)? | ☐ | ☐ | |
| 7. Does the Remediation pose a Risk to ecological or human Receptors? | ☐ | ☐ | |

**Table 18.3: Worksheet That Indicates a RAP May be Required (cont.)**

| Need for a Remedial Action Plan | Response | | Notes |
|---|---|---|---|
| | Yes | No | |
| **Questions (cont.)** | | | |
| 8. Does the Contamination or do remedial activities affect critical habitat of Species at Risk? | ☐ | ☐ | |
| 9. Has the Contamination migrated, or is it likely to migrate, off the RoW or Company Owned or Leased Lands? | ☐ | ☐ | |
| 10. Has the source of Contamination been controlled? | ☐ | ☐ | |
| 11. Is there a potential for Contamination to reach groundwater based on depth to groundwater, depth of confining layer, soil permeability, etc.? | ☐ | ☐ | |
| 12. Is there a potential for Contamination to reach surface water based on distance to a waterbody, ditches or other overland flow pathways, soil permeability, conduits, etc.? | ☐ | ☐ | |
| 13. Is there a wetland, water body, or substrate of a wetland or water body within 30 m of the Contamination? | ☐ | ☐ | |
| 14. Is the Contamination located within a municipal, provincial park, national park, or protected area? | ☐ | ☐ | |
| 15. Is the Remediation expected to be complex due to site conditions (e.g., presence of fractured bedrock, peat, permafrost, etc.)? | ☐ | ☐ | |
| 16. Does the proposed Remediation use novel methods or novel technology? | ☐ | ☐ | |
| 17. Are there factors involved in Remediation that suggest development and submission of a RAP to the CER may expedite or facilitate CER acceptance of the Closure Report? | ☐ | ☐ | |
| 18. Have there been concerns expressed by potentially affected persons or communities regarding the Contamination or proposed remedial activities? | ☐ | ☐ | |
| 19. Are there any utility conduits through or under the site that will remain in contact with any contaminant? | ☐ | ☐ | |

# Appendix D Risk Assessment

Assessment of hazards and Risks are part of the Remedial Action Plan, Risk Management Plan, and Closure Report development process. A human health and/or ecological Risk Assessment may also be carried out at certain sites. Table 18.4 provides a brief summary of the information that should be included in an ecological and human health Risk assessment. Many items in the Problem Formulation portion of the table are key elements of a well-developed conceptual site model, which is necessary in developing a RAP or RMP, or in demonstrating that Remediation is complete in a Closure Report.

CCME and Health Canada approaches to risk assessment are recommended; however, provincial approaches may be acceptable.

**Read more about Risk Management in section 12.**

**Read about the Limited Exception to Application of Generic Remediation Criteria in section 11.5.**

### Table 18.4: Summary of Risk Assessment Worksheet

| Problem Formulation |
|---|
| **Site-Management Goal(s)** |
| ☐ Describe site-management goal(s) and specific assessment goal |
| **Literature review** |
| ☐ Previous ESAs including all historical data and site monitoring data |
| ☐ Federal (CCME) or provincial Risk Assessment guidance documents |
| ☐ Federal, provincial/territorial generic Remediation Criteria for all potential Receptors, land uses, soil types, etc. |
| ☐ Site Surveys with electromagnetic Surveys, as-built diagrams, etc. |
| **Receptor identification** |
| Identification of potential human receptors and ecological receptors of concern to be assessed in the Risk Assessment |
| ☐ Identify potential human receptors and receptor age groups which may be exposed to the Contamination |
| ☐ Identify habitats, communities and ecosystems which potentially have been exposed to the Contamination |
| ☐ Compile species lists for the site |
| ☐ Catalogue all potentially significant or sensitive species at or surrounding the site |
| ☐ Identify Receptors most likely to be affected by stressors associated with the site with Contamination |
| ☐ Compile background information on receptors of concern |
| ☐ Identify missing species using ecosystem classification systems (i.e., species that should be present but are absent) |
| ☐ Based on any new information, refine and re-evaluate assessment and measurement endpoints and ensure priority receptors are still relevant and emphasized |
| **Selection of target chemicals** |
| Chemicals of potential concern to be evaluated in the Risk Assessment are identified |
| ☐ Identify chemicals present at the site |
| ☐ Review those chemicals and their concentration with respect to hazard assessment (toxicity, persistence, bioaccumulation) |
| ☐ If toxicity data for the site exist, review and determine where responses indicate exposure |
| ☐ Select target chemicals based on review/assessment of their properties |
| ☐ Include all chemicals unless there is information that supports exclusion |

**Table 18.4: Summary of Risk Assessment Worksheet (cont.)**

| Problem Formulation (cont.) |
|---|
| **Exposure pathway analysis** |
| Exposure pathways by which receptors may be exposed to chemicals of potential concern at a site are selected for evaluation in the Risk Assessment<br>☐ Identify operable exposure pathways<br>☐ Identify where there is not enough information to exclude potential pathways<br>☐ Identify why pathways have been eliminated |
| **Relation to exposure assessment** |
| ☐ Assess possible spatial/temporal overlap of Receptors and contaminants of concern, based on the exposure assessment |
| **Development of Conceptual Site Model** |
| The conceptual site model describes the connections between contaminants of concern, exposure pathways and receptors of concern |
| **Describe Risk Assessment Strategy** |
| The risk assessment strategy includes detail on how the risk assessment will be conducted |
| **Uncertainty Analysis** |
| ☐ Identify data gaps<br>☐ Identify key uncertainties, both qualitative and quantitative, and whether they are acceptable or unacceptable<br>☐ Evaluate whether preliminary quantitative ERA exposure assessment could reduce uncertainty significantly |
| **Exposure Assessment** |
| **Contaminant Release/transport and fate** |
| The exposure assessment quantifies or characterizes the magnitude of exposure that receptors may be exposed to<br>☐ Identify possible transport pathways<br>☐ Identify data gaps<br>☐ Provide preliminary quantitative estimates, if possible<br>☐ Identify areas to which contaminants have been or may be transported<br>☐ Identify potential reference sites, and obtain information for those sites |
| **Aquatic and/or terrestrial exposure** |
| ☐ Identify most important exposure pathways and their link to biological components at Risk<br>☐ If possible, provide preliminary estimates of exposure or tissue concentration using bioaccumulation and/or bio concentration factors, other measurements of exposure should be identified |

**Table 18.4: Summary of Risk Assessment Worksheet (cont.)**

| Hazard Assessment |
| --- |
| The hazard assessment provides the nature of effects for each chemical of concern for which each receptor of concern may be exposed |
| ☐ Link exposure assessment to identify contaminants that are at concentrations that can be expected to be toxic/bioaccumulative |
| ☐ Consider mixtures of chemicals |
| ☐ Choose species for which toxicity data are readily available and extrapolate to valued ecosystem components (VEC). |
| ☐ Where data are available, examine population/community information |
| ☐ In conjunction with exposure assessment, use toxicological databases such as AQUIRE, IRIS |
| ☐ Include an assessment of uncertainty |
| **Risk Characterization** |
| The risk characterization uses the information from the exposure and hazard assessments to characterize potential adverse effects and integrates them to make conclusions |
| ☐ Integrate the other components of the Risk Assessment |
| ☐ Identify key uncertainties and data gaps, make recommendations for filling data needs |
| ☐ Characterize risk as “high”, “intermediate” or “negligible” |
| ☐ Make Risk estimates |

# Appendix E Contamination Scenarios and Required Actions

The table below provides examples of Contamination scenarios that companies may encounter, along with the required actions. Refer to the Guide and all applicable laws for complete details and requirements on the required actions.

If there are questions or concerns on any steps within the Remediation Process, contact remediation@CER-one.gc.ca for assistance with scenarios specific to the contaminated site.

Read about Reporting Contamination to the CER in section 6.

**Table 18.5: Contamination on the RoW**

| CER-Regulated Energy Infrastructure Contamination Scenarios and Expected Actions | |
|---|---|
| **Scenario** | **Required Actions** |
| **New Releases, Non-Reportable Incidents** | |
| Scenario 1<br><br>A contaminant Release occurs (liquid or solid) that meets all of the following criteria:<br><br>• does not meet the definition of an Incident pursuant to the CER Event Reporting Guidelines<br>• Contamination is contained to the RoW with low Risk of off-site migration<br>• minimal potential for an Adverse Effect on the environment<br>• Contamination is fully remediated to meet generic Remediation criteria, which are appropriate based on available site data, within 12 weeks of the date that the Release occurred | Scenario 1<br><br>1. Follow appropriate company processes/procedures to immediately manage Release.<br>2. Manage resulting waste.<br>3. Demonstrate success of Remediation (evidence/ documentation commensurate with characteristics of Release and receiving environment).<br>4. Maintain record of Release and remedial actions and provide record to the CER upon request.<br><br>Note: If a Release occurs that is not reportable as an Incident, but either of the two conditions below apply, a NOC must be submitted to the CER and the Remediation Process followed (as for Scenario 4):<br><br>a. Remediation takes longer than 12 weeks<br>b. the Contamination will not be fully remediated |
| Scenario 2<br><br>A contaminant Release occurs (liquid or solid) that meets all of the following criteria:<br><br>• meets the definition of an Incident pursuant to the CER Event Reporting Guidelines<br>• Contamination is contained to the RoW with low Risk of off-site migration<br>• Contamination is contained such that Remediation can be completed within 12 weeks or by the date on which the Detailed Incident Report (DIR) or comparable report is submitted<br>• Remediation to generic or slightly modified criteria (as justified by site data) is appropriate and achievable | Scenario 2<br><br>1. Immediately report the Release as an Incident to the CER according to the CER Event Reporting Guidelines.<br>2. Manage the emergency situation (if applicable), recover / clean-up free product on visibly contaminated soil or surface water.<br>3. Conduct remedial activities according to company procedures.<br>4. Submit DIR, as required under the OPR, or comparable final Incident reporting under applicable regulations, as summarized in the CER Event Reporting Guidelines. Include details on remedial activities and demonstrate completion of adequate and appropriate Remediation. |

**Table 18.5: Contamination on the RoW (cont.)**

| CER-Regulated Energy Infrastructure Contamination Scenarios and Expected Actions | |
|---|---|
| **Scenario** | **Required Actions** |
| **New Releases, Non-Reportable Incidents (cont.)** | |
| Scenario 3<br><br>A Contaminant Release occurs (liquid or solid) that meets all of the following criteria:<br><br>• meets the definition of an Incident pursuant to the CER Event Reporting Guidelines<br>• is of large enough magnitude/scope that it cannot be fully remediated within 12 weeks, or by the date the DIR is submitted | Scenario 3<br><br>1. Immediately report the Release as an Incident to the CER according to the CER Event Reporting Guidelines.<br>2. Manage the emergency situation (if applicable), recover / clean-up free product on visibly contaminated soil or surface water. Conduct remedial activities according to company procedures.<br>3. Submit DIR, as required under the OPR, or comparable final Incident reporting under applicable regulations, as summarized in the CER Event Reporting Guidelines. In OERS, indicate that residual Contamination will require Remediation.<br>4. Submit a NOC to the CER. Note that OERS will automatically create and send a link to a NOC should residual Contamination be identified in the DIR.<br>5. Notify potentially affected persons and communities, if notification has not yet taken place.<br>6. Proceed with ESA, RAP, RMP and/or remedial activities pursuant to this Guide to Work to achieve site closure.<br>7. Submit annual update to CER until site closure is achieved.<br>8. Submit Closure Report. |
| **On-site Contamination Identified or Encountered (not a recent Release)** | |
| Scenario 4<br><br>Contamination is identified or encountered that is not the result of a recent, known, Release. | Scenario 4<br><br>1. Inform the CER of the discovery via submission of a NOC, and advise if Contamination. correlates with a previous Incident that was reported to the CER.<br>2. Notify potentially affected persons and communities.<br>3. Proceed with ESA, RAP, RMP and/or remedial activities pursuant to this Guide to work to achieve site closure.<br>4. Submit annual update to CER until site closure is achieved.<br>5. Submit Closure Report. |

**Table 18.5: Contamination on the RoW (cont.)**

| CER-Regulated Energy Infrastructure Contamination Scenarios and Expected Actions | |
|---|---|
| **Scenario** | **Required Actions** |
| Scenario 4<br><br>Contamination is identified or encountered that is not the result of a recent, known, Release. | Scenario 4<br><br>1. Inform the CER of the discovery via submission of a NOC, and advise if Contamination. correlates with a previous Incident that was reported to the CER.<br>2. Notify potentially affected persons and communities.<br>3. Proceed with ESA, RAP, RMP and/or remedial activities pursuant to this Guide to work to achieve site closure.<br>4. Submit annual update to CER until site closure is achieved.<br>5. Submit Closure Report. |

**Table 18.6: Contamination on Company-Owned or Leased Lands**

| Potential scenarios and required actions for Contamination on company-owned or leased lands | |
|---|---|
| **Scenario** | **Required Actions** |
| **New Releases, Non-Reportable Incidents** | |
| Scenario 5<br><br>A contaminant Release occurs (liquid or solid) that meets all the following criteria:<br><br>• does not meet the definition of an Incident reportable pursuant to the CER Event Reporting Guidelines<br>• Contamination is contained within company owned or leased property with low Risk of off-site migration<br>• minimal potential for an Adverse Effect on the environment<br>• Contamination is fully remediated to meet generic Remediation criteria, which are appropriate based on available site data, within 12 weeks of the date that the Release occurred | Scenario 5<br><br>1. Follow appropriate company processes/procedures to immediately contain and mange Release.<br>2. Manage resulting waste.<br>3. Demonstrate success of Remediation (evidence/ documentation commensurate with characteristics of Release and receiving environment).<br>4. Maintain record of Release and remedial actions and provide record to the CER upon request.<br><br>Note: If a Release occurs that is not reportable as an Incident, but either of the two conditions below apply, a NOC must be submitted to the CER and the Remediation Process followed.<br><br>a. Remediation takes longer than 12 weeks, or,<br>b. The Contamination will not be fully remediated. |
| **New Releases, Reportable Incidents** | |
| Scenario 6<br><br>A contaminant Release occurs (liquid or solid) that meets all of the following criteria:<br><br>• does meet the definition of an Incident pursuant to the CER Event Reporting Guidelines<br>• is contained such that Remediation can be completed within 12 weeks or by the date on which the Detailed Incident Report is submitted | Scenario 6<br><br>1. Immediately report the Release as an Incident to the CER according to the CER Event Reporting Guidelines.<br>2. Manage the emergency situation (if applicable), recover / clean-up free product on visibly contaminated soil or surface water.<br>3. Conduct remedial activities according to company procedures.<br>4. Submit DIR, as required under the OPR, or comparable final Incident reporting under applicable regulations, as summarized in the CER Event Reporting Guidelines. Include details on remedial activities and the Remediation Criteria used to demonstrate Remediation adequacy. |

**Table 18.6: Contamination on Company-Owned or Leased Lands (cont.)**

| Potential scenarios and required actions for Contamination on company-owned or leased lands | |
|---|---|
| **Scenario** | **Required Actions** |
| **New Releases, Reportable Incidents (cont.)** | |
| Scenario 7<br><br>A contaminant Release occurs (liquid or solid) that:<br><br>• does meet the definition of a reportable Incident pursuant to the CER Event Reporting Guidelines<br>• is of large enough magnitude/scope that it cannot be fully remediated within 12 weeks or by the date the DIR is submitted | Scenario 7<br><br>1. Immediately report the Release as an Incident to the CER according to the Event Reporting Guidelines.<br>2. Manage the emergency situation (if applicable), recover / clean-up free product on visibly contaminated soil or surface water.<br>3. Conduct remedial activities according to company procedures.<br>4. Submit Detailed Incident Report (DIR), as required under the OPR. In OERS, indicate that residual Contamination will require Remediation.<br>5. Submit a NOC to the CER. Note that OERS will automatically create and send a link to a NOC should residual Contamination be identified in the DIR.<br>6. If residual Contamination is located on Company Owned or Leased Lands that does not meet the 3 criteria listed in section 12.3, proceed with ESA, RAP, RMP and/or remedial activities pursuant to this Guide to achieve site closure.<br>7. If residual Contamination is located on Company Owned or Leased Lands that meets the 3 criteria in section 12.3, manage Contamination, proceed to step 8.<br>8. Submit annual update to CER until site closure is achieved |
| Scenario 8<br><br>Contamination is identified or encountered at a location that meets the following criteria:<br><br>• is not the result of an identifiable recent Release<br>• the Facility has an established groundwater monitoring program in place<br>• no free product is detected in groundwater monitoring wells<br>• Contamination does not present a hazard or Adverse Effect or potential hazard or adverse effect to human health or worker safety | Scenario 8<br><br>1. Inform the CER of the discovery of Contamination via submission of a NOC, and advise if Contamination correlates with a previous Reportable Incident.<br>2. Submit the CCME Site Classification Worksheets upon request.<br>3. Conduct remedial and Risk management activities according to company procedures.<br>4. Important: A RAP/RMP is not required if the Contamination is fully contained to the company owned or leased lands, and there are no concerns from potentially affected persons. If the company wishes to receive confirmation that the remedial approach and selected Remediation Criteria are appropriate, the company may choose to submit a RAP/RMP for acceptance to the CER.<br>5. We recommend consulting with the EA prior to submission of the Closure Report should there questions related to the satisfactory selection or development of Remediation Criteria.<br>6. Upon completion of full Remediation, submit Closure Report.<br>7. Submit annual update. |

### Table 18.7: Third Party Contamination

| Potential scenarios and required actions for Contamination on All Lands | |
|---|---|
| **Third Party Contamination** | |
| **Scenario** | **Required Actions** |
| Scenario 9<br><br>Contamination is discovered on All Lands and investigation confirms that the Contamination is not attributable to the company's Facilities | Scenario 9<br><br>1. Submit a NOC to the CER identifying that the Contamination being reported is Third Party Contamination.<br>2. Upon request by the CER, provide documentation that proves the Contamination is Third Party Contamination.<br>3. Notify the landowner (of All Lands) of the presence of Contamination, and extent if known.<br>4. Notify responsible party(ies), if the parties are known.<br>5. Report Contamination to other regulators as required by applicable laws.<br>6. Dispose of and replace contaminated soil as required by applicable guidelines and laws.<br>7. Implement mitigation measures to prevent the Work from increasing the migration potential of the Contamination.<br>8. Implement mitigation measures to avoid the Work from creating further impacts related to the Contamination to Receptors. |

Notes

1. Incidents reportable to the CER under applicable laws, and additional associated guidance, are summarized in the CER Event Reporting Guidelines.
2. Should off-site migration of Contamination occur within any of these situations, notify the CER and other government authorities as required by law (section 6.3).
3. In all scenarios, contaminated soils and/or liquids must be transported off-site and disposed of pursuant to applicable laws.
4. Although engagement steps are not included in the scenarios for Company-Owned or Leased lands, we expect engagement to be considered for all sites with Contamination (section 7).

# Appendix F Remedial Action Plan (RAP) Worksheet

Read more about the requirements for the Remedial Action Plan in section 11.2.

**Table 18.8: RAP Contents**

| General Information | | | | |
|---|---|---|---|---|
| Company: | | | | |
| Company Contact: | | | | |
| REM Number: | | | | |
| Consultant (if applicable): | | | | |
| **RAP Contents** | **Included** | | **Description** | **Notes** |
| | **Yes** | **No** | | |
| **Background** | | | | |
| Detailed Map or Maps | ☐ | ☐ | A detailed map or maps that clearly identify the contaminant source location, affected surface and subsurface areas, and all sample locations, including groundwater sampling and drinking water wells.<br>A map should also show the location of nearby Receptors relative to the source, and affected media with distances and GPS coordinates clearly marked. | |
| Conceptual Site Model | ☐ | ☐ | A graphical and/or written representation of the physical, chemical and biological processes that control the transport and migration of Contamination and potential impacts to human and/or ecological Receptors. | |
| ESA Results | ☐ | ☐ | A summary of the data collected during ESA Site Characterization and Delineation investigations, including complete surface and subsurface site characterization and contaminant characterization. | |
| Contaminants of Concern | ☐ | ☐ | The preferred format is tabular, clearly identifying the contaminant and supporting rationale. | |
| **Remediation Criteria** | | | | |
| Remediation Criteria | ☐ | ☐ | Clearly identify the generic Remediation Criteria considered for each contaminant of concern, the regulation/guidance the criteria came from, and which criterion was selected. The selected criterion for each contaminant of concern should be clearly presented in tabular form. Remediation Criteria may also include Site-Specific Remediation Objectives. | |
| Rationale for criteria selection | ☐ | ☐ | Describe the specific rationale for the selected generic Remediation Criteria. If Site-Specific Remediation Objectives have been developed, attach the supporting information as an appendix to the RAP. | |

**Table 18.8: RAP Contents (cont.)**

| RAP Contents | Included | | Description | Notes |
|---|---|---|---|---|
| | Yes | No | | |
| **Methodology** | | | | |
| Detailed description of remedial method(s) selected | ☐ | ☐ | This should include consideration of physical/ chemical limitations, degradation rates (if applicable), environmental as well as health and safety implications, regulatory approvals, and interests of potentially affected persons and communities. | |
| Sampling details | ☐ | ☐ | Details of sampling and analyses to be performed pre and post Remediation, and quality assurance and quality control measures to be implemented. | |
| Contingency plans and performance measures | ☐ | ☐ | Contingency plans to mitigate potential Adverse Effects to Receptors such as humans, aquatic life, livestock, vegetation and wildlife. Performance measures to assess if remedial success has been achieved should also be included. | |
| Timeline | ☐ | ☐ | A detailed timeline for implementation of the RAP. The rationale for the timeline should be included (e.g., timeline is based upon Remediation rates or the volume of Contamination to be remediated). | |
| Remedial Options Analysis | ☐ | ☐ | Include the environmental impacts, such as air emissions and the overall carbon footprint or net ecological impacts, of the options being presented. Clearly state the rationale for selecting the preferred option. | |
| **Post-Remediation** | | | | |
| Long term monitoring plans | ☐ | ☐ | Any proposed long term monitoring program including details and timing of sampling, analysis, review and reporting to be performed along with a rationale. | |
| Slope stability and erosion control plans | ☐ | ☐ | Slope stability and erosion control plans, where required. | |
| Plans for Reclamation activities with goals clearly stated | ☐ | ☐ | Reclamation plans may be required to return the site to a productive or natural state. It may not be possible to include Reclamation results in the Closure Report, since several growing seasons are often required to stabilize the site. In situations where Reclamation is not yet complete at the time of Closure Report submission, the CER will follow up on Reclamation results outside of the Remediation process. Reclamation plans must have the goals of Reclamation and measures for evaluating the goals, along with timelines, clearly stated in the plan. | |

**Table 18.8: RAP Contents (cont.)**

| RAP Contents | Included | | Description | Notes |
|---|---|---|---|---|
| | Yes | No | | |
| **Engagement** | | | | |
| Record of engagement with potentially affected persons | ☐ | ☐ | A summary of the comments and concerns expressed by potentially affected persons or groups;<br>A summary of the response made regarding each of the concerns or comments, including:<br>• the measures taken, or that will be taken to address those concerns or an explanation of why no further action is required to address the concerns or comments<br>• the methods and dates that the response was made to the person(s) who raised the concern(s)<br>• how outstanding concerns will be addressed | |
| Record of any engagement with other regulators | ☐ | ☐ | Include a record of notifying and engaging with other regulators about Contamination, and the plan for Remediation. Include name and email or telephone number of contact, as well as a brief summary of the interactions. | |
| Summary of concerns and mitigative actions | ☐ | ☐ | Summarize any concerns raised and the company's efforts to address them. | |
| Concordance Table | ☐ | ☐ | The Concordance Table included in the RAP should direct the reader to an easily accessible location within the report that includes information regarding Remediation Criteria and results. An example of information to include in the concordance table is found in Appendix B. | |

# Appendix G Risk Management Plan (RMP) Worksheet

Read more about Risk Management Plan (RMP) Contents in section 12.1.

**Table 18.9: Risk Management Plan Contents**

| General Information | | | | |
|---|---|---|---|---|
| Company: | | | | |
| Company Contact: | | | | |
| REM Number: | | | | |
| Consultant (if applicable): | | | | |
| **RMP Contents** | **Included** | | **Description** | **Notes** |
| | **Yes** | **No** | | |
| **Background** | | | | |
| Detailed Map or Maps | ☐ | ☐ | A detailed map or maps that clearly identify the contaminant source location, affected surface and subsurface areas and all sample locations. | |
| Conceptual Site Model | ☐ | ☐ | A graphical and/or written representation of the physical, chemical and biological processes that control the transport and migration of Contamination and potential impacts to human and/or ecological Receptors. | |
| Contaminants of Concern | ☐ | ☐ | The preferred format is tabular, clearly identifying the contaminant and supporting rationale. | |
| ESA Results | ☐ | ☐ | A summary of the data collected during ESA Site Characterization and Delineation investigations, including complete surface and subsurface site characterization and contaminant characterization. | |
| Risk Assessment Results | ☐ | ☐ | The results of the Risk Assessment for existing contaminants, including a description of the human and ecological Receptors, and the exposure pathways by which the Receptors might be impacted by the contaminants. | |
| **Implementation** | | | | |
| Description of Controls | ☐ | ☐ | A detailed description of the controls selected to protect Receptors. | |
| Maintenance of Controls | ☐ | ☐ | A description of implementation and maintenance of controls. | |
| Monitoring Plan | ☐ | ☐ | A plan for monitoring and periodic site evaluation to verify that the assessment remains valid and that the applied controls remain effective. | |
| Legal Requirements | ☐ | ☐ | The process for ongoing evaluation of legal requirements pertaining to risk management that apply to the jurisdiction of the specific site. | |

### Table 18.9: Risk Management Plan Contents

| | | | | |
|---|---|---|---|---|
| **Engagement** | | | | |
| Record of engagement with potentially affected persons | ☐ | ☐ | A summary of the comments and concerns expressed by potentially affected persons or groups;<br><br>A summary of the response made regarding each of the concerns or comments, including:<br>• the measures taken, or that will be taken to address those concerns or an explanation of why no further action is required to address the concerns or comments<br>• the methods and dates that the response was made to the person(s) who raised the concern(s)<br>• how outstanding concerns will be addressed | |
| Record of any engagement with other regulators | ☐ | ☐ | A record of other regulators that were notified of Contamination and engaged on the plan for Risk management. Include name and email or telephone number of contact, as well as a brief summary of the interactions. | |
| **Concordance Table** | | | | |
| Concordance Table | ☐ | ☐ | The Concordance Table should direct the reader to an easily accessible location within the report that includes information regarding Remediation Criteria and results. An example of information to include in the concordance table is in Appendix B. | |

**Table 18.8: RAP Contents (cont.)**

# Appendix H Closure Report Worksheet

Read more about Site Closure in section 14.

**Table 18.10 Closure Report**

| **General Information** | | | | |
|---|---|---|---|---|
| Company: | | | | |
| Company Contact: | | | | |
| REM Number: | | | | |
| Consultant (if applicable): | | | | |
| **Closure Report Contents** | **Included** | | **Description** | **Notes** |
| | **Yes** | **No** | | |
| **Background** | | | | |
| Site description | ☐ | ☐ | Provide details about the site and the origin of the Contamination. | |
| Geospatial information | ☐ | ☐ | Site maps including GPS information (decimal degree format) and drawings showing excavation boundaries, sample locations, treatment and monitoring well locations, etc. | |
| Remedial activities | ☐ | ☐ | Provide details about the remedial activities that were conducted. | |
| **Remediation Criteria** | | | | |
| Contaminants of Concern (COC's) with Remediation Criteria | ☐ | ☐ | Tabulated contaminants of concern and selected generic Remediation Criteria or Site-Specific Remediation Objectives. Include rationale for selection of generic Remediation Criteria if not already approved in a RAP. | |
| Comparison of COC's vs Remediation Criteria | ☐ | ☐ | A comprehensive demonstration that all contaminants of concern remaining at the site are below the Remediation Criteria, supported by tables and figures. | |
| Summary of major findings | ☐ | ☐ | Include any significant findings from ESAs or other studies conducted at the site. | |
| **Engagement** | | | | |
| Record of Engagement with potentially affected persons | ☐ | ☐ | A summary of the comments and concerns expressed by potentially affected persons or groups;<br><br>A summary of the response made regarding each of the concerns or comments, including:<br><br>• the measures taken, or that will be taken to address those concerns or an explanation of why no further action is required to address the concerns or comments<br>• the methods and dates that the response was made to the person(s) who raised the concern(s)<br>• how outstanding concerns will be addressed | |

**Table 18.10 Closure Report (cont.)**

| | | | | |
|---|---|---|---|---|
| Record of any engagement with other regulators | ☐ | ☐ | Keep a record of other regulators that were notified of Contamination, and engaged on the plans for Remediation or Risk Management. Include name and email or telephone number of contact, as well as a brief summary of the interactions. | |
| Summary of concerns and mitigative actions | ☐ | ☐ | A record of any concerns raised by potentially affected persons, and the company's efforts to address them. Include the direct comments from other regulators that reviewed the Closure Report. | |
| **Concordance Table** | | | | |
| Concordance Table | ☐ | ☐ | The Concordance Table included in the Closure Report should direct the reader to an easily accessed location within the report to information regarding Remediation Criteria and results. An example of information to include in the concordance table is found in Appendix B. | |
| Post Remediation activities | ☐ | ☐ | Include a summary of the ongoing Reclamation activities at the site, and goals for Reclamation, along with any commitments made to potentially affected persons or other regulators regarding Reclamation. | |

# Appendix I Declaration Letter

This Declaration Letter must be signed by:

1. An *accountable officer*, if the facility owner is required to appoint such an accountable officer pursuant to section 6.2 of the *Canadian Energy Regulator Onshore Pipeline Regulations* (OPR); OR
2. Where there is no *accountable officer* required pursuant to the OPR, an officer or director of the company which owns the facility to which the closure letter relates

and must be submitted to the Canada Energy Regulator (CER) with the Closure Report.

I, _____, the accountable officer of _____, declare:
name company name

This application for a Closure Letter for _____ was prepared and completed under my direction. Based on my inquiries of the person or persons who managed the application components required to complete this application the information is, and the complete application is, to the best of my knowledge and belief, true, accurate and complete:
remediation event

1. All remedial activities were conducted in accordance with the Remedial Action Plan and/or Risk Management Plan, if applicable, and the Closure Report. If Work was not conducted in accordance with these documents, detailed reasons for deviation were included in the Closure Report.
2. The contaminants specified in the Closure Report were remediated to the more stringent of federal or provincial generic Remediation Criteria for the appropriate land use or the established Site Specific Remediation Objectives as stated in the Remedial Action Plan and/or Risk Management Plan, if applicable, and the Closure Report.
3. Any commitment made by the company to the CER and to potentially affected persons regarding Remediation of Contamination, and additional mitigation, has been met. In the event the commitment was not met, a detailed statement was included in the Closure Report as to why this commitment could not be or was not met.
4. All potentially affected persons were notified of the Contamination and remedial activities and engaged on the plans for remediation and site closure in compliance with section 7 of the 2020 CER Remediation Process Guide. In the event this requirement was not met, a detailed statement was included in the Closure Report as to why this requirement could not be or was not met.
5. Any outstanding concerns identified by potentially affected persons or other regulators, and actions to address these concerns, or an explanation as to why no further action is required to address these concerns or comments, have been described in the Closure Report.

Name: Position:

Signature: Date:
day / month / year.

Canada Energy Regulator | Régie de l'énergie du Canada

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