



Canada Energy
Regulator

Régie de l'énergie
du Canada

**Operations and Maintenance Activities on
Pipelines Regulated Under the
Canadian Energy Regulator Act:**

Requirements and Guidance Notes

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Updated to – January 2025**

O&M Guidelines

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1.0 Goal

The goal of the *Operations and Maintenance Activities on Pipelines Regulated Under the Canadian Energy Regulator Act: Requirements and Guidance Notes (O&M Guidelines)* is to provide companies and the public with greater clarity about how operations and maintenance (O&M) activities on pipelines (including processing plants) under the *Canadian Energy Regulator Act (CER Act)* will be regulated, while ensuring safe and efficient delivery of energy to Canada and the world, protecting the environment, and recognizing and respecting the rights of Indigenous Peoples.

2.0 Background

Routine O&M activities are evaluated by the Canada Energy Regulator (CER) as part of the original application for the construction and operation of a pipeline;¹ therefore, companies are not required to apply for additional approval to undertake most O&M activities. The CER continues to regulate O&M activities and to fulfill its mandate through its inspection and audit programs.

The requirements for O&M activities contained in this document apply to all pipelines regulated under the CER Act that occur on lands owned by the applicant company or where there is an agreement in place between the company and the landowner(s) that covers the construction, operation, and maintenance of a pipeline, including:

- company-owned land;
- land rights held under easement, leased, or licensed land; and
- temporary workspace.

Where permanent new lands are required to carry out O&M activities companies are reminded that they must fulfill the requirements of sections 320 to 322 of the CER Act. See Section 8.1 for further information.

3.0 Definitions

3.1 Eligible Activities

Operations and maintenance activities include:

1. all activities necessary to safely operate an existing pipeline; maintenance activities, upgrades or repairs to an existing pipeline or part of a pipeline that do not increase the approved maximum operating pressure (MOP), the stress level² or diameter of the pipeline; or
2. physically removing an existing section of pipe up to 5 km in length and putting a new section of pipe in its place, if this replacement does not increase the approved MOP, stress level or diameter of the pipeline.

¹ "Pipeline" is defined in the CER Act as "means a line – including all branches, extensions, tanks, reservoirs, storage or loading facilities, pumps, racks, compressors, interstation communication systems, real or personal property, or immovable or movable, and any connected works – that connects at least two provinces or extends beyond the limits of a province, Sable Island or an area referred to in paragraph (c) of the definition designated area in section 368 and that is used or is to be used for the transmission of oil, gas or any other commodity. It does not however include a sewer or water pipeline that is used or is to be used solely for municipal purposes."

² "Stress level" in this context means the percent of the specified minimum yield strength for the design operating stress.

3.2 Restrictions on Eligible Activities

Where any of the following restrictions exist, the company must apply to the CER in accordance with the CER Act and the related Regulations and may not carry out the proposed activity until approval from the CER has been obtained. The restrictions apply where:

1. the work includes welding on an in-service pipeline by a pipeline company that has not previously performed in-service welding in accordance with the requirements of CSA Z662-15, Clause 7.17, 'Welding on In-Service Piping', or the equivalent clause in the most recent edition of CSA Z662; or
2. the work involves the construction of an aerial crossing, excluding work on company owned or leased land relating to facilities (e.g., terminal stations, processing plants, compressor/pump stations).

Subject to Section 3.3, O&M activities that fall within the types of activities listed in Section 3.1 above, and to which none of the restrictions in Section 3.2 apply, do not require an application to the CER under the CER Act. Companies will be required to notify the CER prior to undertaking O&M activities under certain circumstances. (See Schedule A and Section 4.1.)

3.3 Ineligible Activities

O&M activities **do not include**:

1. upgrades that result in increases above previously approved and specified levels to:
 - a) the MOP,
 - b) stress levels,
 - c) the diameter of the pipeline, and/or
 - d) airborne emissions or noise levels³;
2. "looping" (i.e., adding pipe parallel or adjacent to, and interconnected with, an existing pipeline for the general purpose of increasing capacity);
3. construction of a new pipeline; or
4. deactivation (for longer than 12 months), reactivation (where a pipeline has been deactivated for more than 12 months), decommissioning, or abandonment.

All of the preceding activities require an application under the CER Act, the *Canadian Energy Regulator Onshore Pipeline Regulations (OPR)* or the *Canadian Energy Regulator Processing Plant Regulations (PPR)* (see Schedule A).

Guidance Notes:

O&M activities do not include the addition of a parallel piece of pipe without removal of the existing pipe that has permanently ceased operation. If the company plans to leave an existing section of pipe in place, it must apply to the CER: (i) for an exemption under section 214 of the CER Act, for the construction and operation of the new section of pipeline; and (ii) to decommission the existing section of pipe under the OPR.

Companies are required to apply to the CER for the installation of any length of pipe that is greater than 5 km.

³ This refers to permanent increase in air and noise emissions and not to temporary increases in air and noise emissions during construction.

In general, permissible "upgrades" do *not* include additions of components to a pipeline or processing facility that were not specifically contemplated in the original Certificate or Order. However, the definition of upgrade includes the addition of cathodic protection systems, as these are typically contemplated during the assessment of the original pipeline. Therefore, the addition of a cathodic protection system is considered an O&M activity.

Upgrades include improvements in technology. For example, if a company was proposing to install solar panels as a power source in place of an existing source of fuel oil, the proposed installation would be considered a permissible upgrade under the O&M Guidelines. This is analogous to removing an existing section of pipe and putting a new section in its place, since the function of the installation would not change from what was originally approved.

Upgrades do *not* include adding new connections, including tie-ins or hot taps, and associated piping and metering facilities for the purposes of sale or receipt of oil or gas. These installations still require an Order under section 214 of the CER Act. Metering or regulating facilities installed for the sole purposes of measurement or monitoring are considered O&M activities.

Companies are encouraged to contact the CER for additional clarification related to specific O&M activities they are planning (see Section 7.0 for contact information).

4.0 Requirements

4.1 Notification to the Canada Energy Regulator

Goal:

The CER is provided with sufficient information to decide as to whether to inspect O&M activities that could result in safety consequences to landowners or the public, environmental consequences, or a negative impact on normal third party use of the right-of-way (RoW) or adjacent property.

Requirements:

In any of the following circumstances, the CER requires companies to provide **notification** to the CER of O&M activities at least **21 working days**⁴ prior to starting work:

- There are unresolved third party concerns (i.e., landowners, Indigenous Peoples, shippers, federal and provincial government departments, or other persons or groups who may be affected by the O&M activities) and these concerns relate specifically to the proposed O&M activity.⁵
- New temporary or permanent land is required that:
 - is within critical habitat for any Endangered or Threatened species listed on Schedule 1 of the federal *Species at Risk Act*, or
 - is to be acquired in accordance with sections 320 to 322 of the CER Act.

⁴ "Working days" do not include Saturdays, Sundays, or statutory holidays.

⁵ The CER offers Appropriate Dispute Resolution (ADR) services to assist in resolving unresolved concerns. The CER's ADR services include informal discussions, facilitated meetings and mediation.

- Exposure of the pipe surface for the purposes of integrity assessments, repairs or removing an existing section of pipe and putting a new section in its place in areas where there are residences, or where there is a school, hospital, prison, or other institution where people routinely congregate in large groups (more than 50 people), within the emergency planning zone or within 200 m of the proposed activity (whichever is greater).
- Removing an existing section of pipe and putting a new section in its place where the replacement is greater than 100 m (but less than 5 km) in length.
- Pressure testing of line pipe performed by means other than hydrostatic testing.⁶
- Ground disturbance using power-operated equipment within 30 m of a wetland⁷ or a water body,⁸ or within 30 m of the substrate of a wetland or water body.⁹
- Ground disturbance using power-operated equipment on reserve lands, land claim settlement lands¹⁰, or Metis settlement lands.

Guidance Notes:

If the proposed O&M activity takes places on federal lands (e.g., National Parks, national defence lands, etc.), the company is responsible for consulting the appropriate Federal Government authorities and obtaining any permits required.

If the proposed O&M activity takes place on reserve lands, land claim settlement lands, or Metis settlement lands, the company is responsible for adhering to any additional legal requirements, and identifying and consulting with the appropriate First Nation, Inuit, or Metis Settlement.

For any of the above-noted circumstances, companies are required to submit the following information when notifying the CER:

- A complete description of the planned activity or project.
- A rationale for the activity or project.
- Whether the activity is the result of a class location change.
- Regarding consultation:
 - where there are no unresolved third party concerns related specifically to the O&M activity, a summary of consultation that has been undertaken with potentially affected third parties; or justification why consultation was not carried out; or
 - where there are remaining unresolved third party concerns related specifically to the O&M activity, a complete record or table of consultation that has been undertaken with those parties; or justification why consultation was not carried out.
- References to the applicable section(s) of relevant company manuals or environmental protection plan.
- The location of the activity (e.g., legal land description, kilometre post).

⁶ As per section 23 of the OPR, the CER may require a company to submit the details of its pressure testing program prior to starting pressure testing.

⁷ Wetland means a swamp, marsh, bog, fen, or other land that is covered by shallow water seasonally or permanently, including land where the water table is located at or close to the surface.

⁸ Water body means a river, a lake, a creek, a stream, a canal, a reservoir, an ocean, up to the high-water mark, but does not include a sewage or waste treatment lagoon or a mine tailings pond.

⁹ Additional information on requirements relating to fish and fish habitat and navigation can be found in Section 8.0.

¹⁰ Land claim settlement lands are lands created under Comprehensive Land Claims Process and implemented through legislation (Source: <https://open.canada.ca/data/en/dataset/522b07b9-78e2-4819-b736-ad9208eb1067>).

- Where applicable, the location of any residences, or schools, hospitals, prisons, or other institution where people routinely congregate in large groups (more than 50 people), within the emergency planning zone or within 200 m of the proposed activity (whichever is greater).
- Timing and duration of the activity (e.g., day, week, month).
- A contact person with the company, with whom the CER could follow-up.
- Whether the activity occurs on reserve lands, land claim settlement lands, or Metis settlement lands.
- Where new permanent land is to be acquired for the O&M activity:
 - Whether fee simple landowner is in agreement (if private land).
 - Confirmation that company will comply with the requirements under sections 320 to 322 of the CER Act.
 - The amount of new permanent land to be acquired.

Guidance Notes:

For notification, the CER requires sufficient information to understand the nature and scope of the O&M activity. The information required for notification to the CER should be concise, but it should provide the CER with sufficient detail to determine whether CER follow-up is warranted. With respect to CER inspections of O&M activities, the CER will rely on the information outlined in the company's O&M Manual, its Environmental Protection Program, and information resulting from public consultation activities when verifying compliance of O&M activities.

Companies are required to file notifications using the [Online Event Reporting System \(OERS\)](https://apps.cer-rec.gc.ca/ers) (<https://apps.cer-rec.gc.ca/ers>).

Section 8.0 outlines additional information that the CER requires companies to provide with their notification of O&M activities involving the acquisition of new land, or ground disturbance using power-operated equipment within 30 m of a wetland or a water body or within 30 m of a substrate of a wetland or water body.

To view O&M notifications on the [CER's Internet site \(www.cer-rec.gc.ca\)](http://www.cer-rec.gc.ca), select "View regulatory documents" under the "Applications and hearings" heading. Once in "REGDOCS," under the "Facilities" column heading, select the facility's commodity type (e.g., oil, gas). In the next screen, select the company of interest. The notifications will be filed in a sub-folder called "Notifications of Operations and Maintenance Activities" at the top of the page.

4.2 *Unplanned Operations and Maintenance Activities*

Goal:

Companies undertake all O&M activities that are required to safely operate a pipeline and to protect the environment.

Requirement:

For O&M activities that are unplanned (i.e., the company only becomes aware these activities are necessary shortly before starting the work), but which would normally require advance notification (see list of activities requiring notification in Section 4.1), companies are required to notify the CER as soon as they determine the activity must be carried out, following the same notification process outlined in Section 4.1.

Guidance Notes:

Notifying the CER of unplanned O&M activities does not substitute for a company's obligation to report incidents under the OPR, PPR, the *Canadian Energy Regulator Pipeline Damage Prevention Regulations – Obligations of Pipeline Companies*, the *Transportation Safety Board Regulations*, the *Canada Labour Code*, and/or other relevant legislation, under which reporting is also required.

4.3 Public Consultation**Goal:**

Companies conduct effective public consultation related to O&M activities.

Requirements:

The CER requires companies to engage parties whose rights or interests may be affected by O&M activities, prior to undertaking those activities. Companies must document all consultation activities, maintain this documentation, and provide this documentation as outlined in Section 4.1, or upon request from the CER.

Guidance Notes:

"Public consultation" refers to the range of activities a company can undertake to share information with members of the public who may be affected by O&M activities, and to identify and resolve issues or concerns related to these activities. Examples of potentially affected members of the public include landowners, tenants, residents, Indigenous communities, government agencies, non-governmental organizations, trappers, guides, outfitters, recreational users, other land, or resource users (e.g., forestry, mining), and commercial third parties.

The CER recognizes that effective public consultation goes beyond simply informing potentially affected members of the public and includes involving them in decisions or plans that may affect their lives. Companies must carry out public consultation activities that are reasonable for the scope and nature of the planned activity and must justify the extent of public consultation carried out, particularly if no consultation is undertaken.

Although not an exhaustive list, the following sources provide companies with guidance on effective public consultation, which should be considered when planning O&M activities:

- The CER's *Filing Manual*, Chapter 3
- CSA Z764-96, *A Guide to Public Involvement*
- International Association for [Public Participation \(IAP2\) website \(www.iap2.org\)](http://www.iap2.org).

The CER expects companies to maintain records of public consultation activities related to O&M activities. At a minimum, the CER expects companies to document and retain the following information related to public consultation activities:

- Who was involved?
- When did public consultation occur and what methods were used?
- What issues were raised?
- How were the issues addressed?
- What issues were not resolved?
- What follow-up was undertaken or is planned to address unresolved issues?

When consultation includes Indigenous Peoples, companies should consider establishing a consultation protocol with these communities that takes into consideration their rights, interests, and cultural elements.

4.4 Record Maintenance

Goal:

Companies maintain documentation for O&M activities.

Requirement:

Companies are required to keep a record of all O&M activities undertaken in accordance with the current version of CSA Z662.

Guidance Notes:

Companies are expected to keep a record of all O&M activities that are carried out. Companies are also expected to maintain documentation of the O&M activities for which notification to the CER is required. The information listed for notification purposes in Section 4.1 is the minimum requirement for documentation purposes.

4.5 Other Regulatory Obligations

Goal:

Companies must fulfill their regulatory obligations to other federal, territorial, and provincial agencies for O&M activities.

Requirements:

Depending on the type and/or location of the O&M activity, companies may have regulatory obligations under other federal, territorial, or provincial legislation or under other parts of the CER Act, the OPR, PPR or other regulations made pursuant to the CER Act.

Guidance Notes:

Companies are reminded of the following:

- Additional approvals under other legislation or regulations, such as the federal *Fisheries Act* or the *Migratory Birds Regulations* may be required.
- Companies have obligations under the *Migratory Birds Convention Act* and the *Species at Risk Act*. The CER recommends that companies check with regional offices for federal, territorial, and provincial agencies to ensure they are meeting all of their regulatory obligations.
- Companies have obligations under federal, provincial, and territorial legislation for identifying and protecting heritage resources. The CER expects companies to ensure they are meeting all their regulatory obligations.
- Certain activities may require an application or notification under other parts of the CER Act, the OPR, the PPR, or other regulations made pursuant to the CER Act.

5.0 Other Issues

5.1 Toll Considerations & Commercial Third Parties

Goal:

Companies are aware that a decision pursuant to section 183 or section 214 of the CER Act does not constitute an approval of the costs associated with O&M activities for inclusion in the cost of service and/or rate base.

Requirements:

None.

Guidance Notes:

Since O&M activities do not require an application under section 214 or section 183 of the CER Act, companies may wish to consider other methods to communicate certain capital additions to shippers.

6.0 Continual Improvement

The CER encourages all persons to submit ideas on improving these requirements, the notification process, or other aspects of the regulation of O&M activities in writing to:

Director, Construction Oversight
Canada Energy Regulator
210, 517 - 10 Avenue SW
Calgary, AB T2R 0A8
Facsimile 403-292-5503
Email info@cer-rec.gc.ca

The CER anticipates it will review feedback received at regular intervals after implementation to determine whether process improvements can be made.

7.0 Contacting the CER

Where a project or activity does not appear to be addressed by these requirements, companies are expected to contact the CER for clarification, prior to undertaking the activity:

The CER's Toll-free Number is 1-800-899-1265.

8.0 Additional Information Requirements for Operations and Maintenance Activity Notifications

8.1 New land is required

Goal:

- Companies undertake all O&M activities in a manner that supports the protection of species at risk.

- Companies identify lands acquired in accordance with sections 320 to 322 of the CER Act prior to undertaking all O&M activities.

Requirement:

- Companies must advise the CER if the newly acquired temporary or permanent lands are required to complete the O&M activity and if it:
 - Is within critical habitat for any endangered or threatened species listed on Schedule 1 of the *Species at Risk Act*; or
 - Will be acquired in accordance with sections 320 to 322 of the CER Act.

Guidance Notes:

Companies must provide additional information regarding the acquisition of new temporary or permanent land for an O&M activity that is within critical habitat for any endangered or threatened species listed on Schedule 1 of the *Species at Risk Act* including:

- A list of the species at risk that may be affected and their status.
- A description of the habitat at the new temporary or permanent land.
- The amount of permanent and/or temporary land needed.
- Details of consultations with relevant provincial and federal authorities (if applicable).
- Site plans.
- A description of the activities that will be conducted that are relevant to species at risk and the activities' potential impacts to critical habitat.
- All reasonable alternatives to the activity that would reduce or avoid the impact on the species at risk that have been considered.
- A description of all feasible measures that will be taken to minimize the impact of the activity on the critical habitat or the residences of species at risk.
- Details of monitoring activities that are proposed to help identify corrective actions to avoid and lessen any adverse effects.

8.2 Fish and Fish Habitat

Goal:

Companies undertake all O&M activities in a manner that supports the protection of fish and fish habitat.

Requirement:

- Companies must provide additional information relating to notifications for O&M activities that occur within 30 m of wetlands or waterbodies that contain fish habitat or are frequented by fish.
- The additional information is required to ensure that companies are in compliance with the requirements of the Fish and Fish Habitat Protection and Pollution Prevention provisions of the *Fisheries Act*.¹¹

¹¹ [Fisheries Act \(justice.gc.ca\)](http://justice.gc.ca), See Sections 34 to 42 for the Fish and Fish Habitat Protection and Pollution Prevention provisions.

Guidance Notes:

O&M Activities located within Aquatic Critical Habitat

If a company's O&M activities are located within aquatic critical habitat, as defined in the *Species at Risk Act*, the company is responsible to submit to DFO a request for review or *Fisheries Act* authorization application.

All Other O&M Activities Near Water

DFO standards and codes of practice (as provided on DFO's website, [Projects Near Water](#)) specify procedures, practices or standards for avoiding the death of fish or the harmful alteration, disruption or destruction of fish habitat. Companies should review the [DFO standards and codes of practice](#) carefully to determine if any are applicable to their O&M activities. The CER expects companies to comply with all applicable standards and codes of practice. They may include mitigation measures, project design or planning in water works, undertakings and timing activities to respect [timing windows](#) to protect fish and fish habitat.

DFO standards and codes of practice may periodically change or be updated. It is the responsibility of CER-regulated companies to regularly check the DFO standards and codes of practice for changes or updates.

Companies should note that some activities may not be covered by a DFO standard or code of practice. In these circumstances, it is strongly advised that companies submit notification as early as possible in advance of an O&M activity – ideally, earlier than the 21 day requirement set out in these O&M Guidelines – to give sufficient time to implement the Fisheries Protection Provisions of the *Fisheries Act* and to allow for coordination with DFO as early as possible.

Additional Information Requirements – All Other O&M Activities Near Water

When activities occur under the following circumstances:

- *Access*: Ground disturbance using power-operated equipment within 30 m of a wetland or a water body, or within 30 m of the substrate of a wetland or water body, while accessing the site.
- *Activity Site*: Ground disturbance using power-operated equipment within 30 m of a wetland or water body, or within 30 m of the substrate of a wetland or water body at the activity site.

A self-assessment must be submitted if:

- DFO's standards and codes of practice to protect fish and fish habitat will not be followed; or
- a species listed under Schedule 1 of the *Species at Risk Act* is likely to be present within the O&M activity footprint.

The self-assessment must include:

- Details on fish and fish habitat (including species at risk) that is upstream and downstream and on the project footprint, including unobstructed photographs, and design drawings.
- The amount of fish habitat (in m²) that will be harmfully altered, disrupted, or destroyed below the 2-year high water mark, the amount of riparian habitat to be cleared (m²), and the estimated amount of fish mortality.

- Any planned mitigations or avoidance measures, and/or justification as to why any applicable mitigations or avoidance measures listed in the DFO standards and codes of practice will not be implemented.
- A discussion of whether the proposed works are likely to require authorization under paragraph 34.4(2)(b) or 35(2)(b) of the *Fisheries Act* or permitting under section 73 or 74 of the *Species at Risk Act*.

For further information see DFO's [Request for Review form](#). Companies are also responsible for submitting *Species at Risk Act* permit applications directly to DFO.

8.3 Navigation and Navigation Safety

Goal:

- Companies ensure that effects on potential navigational use are identified, and mitigation measures are put into place to reduce or eliminate those effects.

Requirement:

- Companies must provide additional information relating to notifications of O&M activities related to navigation and navigation safety under certain circumstances.

Guidance Notes:

Companies are required to notify the CER under the following circumstances:

- If a navigable water¹² will be crossed while accessing the O&M site or there will be a ground disturbance or activity within or across a navigable water's wetted perimeter.

If Transport Canada's Minor Works Order will not be followed, the following additional information is required:

- A listing of navigable waterways that may be affected by the activity and the waterway characteristics for each.
- Description of the activities and crossings that may affect navigation.
- Description of potential waterway use; and any consultation conducted with waterway users and Indigenous Peoples regarding navigational use.
- Description of the effects of the O&M activities on navigation and navigation safety including proposed mitigation to address these effects.

The Minor Works Order can be found within the following [link \(https://laws-lois.justice.gc.ca/eng/regulations/SOR-2021-170/\)](https://laws-lois.justice.gc.ca/eng/regulations/SOR-2021-170/)

¹² A **navigable water** is defined in the *Canadian Navigable Waters Act* as follows: a body of water, including a canal or any other body of water created or altered as a result of the construction of any work, that is used or where there is a reasonable likelihood that it will be used by vessels, in full or in part, for any part of the year as a means of transport or travel for commercial or recreational purposes, or as a means of transport or travel for Indigenous peoples of Canada exercising rights recognized and affirmed by section 35 of the [Constitution Act, 1982](#), and

- (a) there is public access, by land or by water;
- (b) there is no such public access but there are two or more riparian owners; or
- (c) Her Majesty in right of Canada or a province is the only riparian owner.

Schedule A: Operations and Maintenance Requirements and Guidance Notes in relation to operations and maintenance activities on pipelines regulated under the *Canadian Energy Regulator Act (O&M)*

