

Guide B - Abandonment ~~Funding and Applications to Abandon~~

B.1 Funding for Abandonment

~~All pipeline companies are required to follow the , which include a systematic approach to pipeline management, including abandonment. Those regulations require all CER-regulated pipeline companies to establish, implement and maintain a management system that, among other things, integrates a pipeline company's operational activities with its management of financial resources to meet its obligation to abandon its pipeline system. A systematic approach requires a pipeline company to have a documented organizational structure that sets out accountabilities, roles and responsibilities in relation to pipeline abandonment.~~

~~Companies' management of financial resources includes the proactive management of their obligations relating to the set aside and collection of abandonment funds. The OPR requires pipeline companies to, as part of their management system, establish and implement a process for, among other things:~~

- ~~• Regular review of objectives and targets required to meet companies' obligations to abandon a pipeline (assumptions would be refined as more detailed plans and assessments are developed);~~
- ~~• Identifying and managing any change that could affect pipeline abandonment, including financial aspects of pipeline abandonment (for example, changes to the assumptions underlying pipeline abandonment such as various pipeline segments or sets of facilities that may be abandoned on different timelines);~~
- ~~• Evaluating and managing the risks associated with, among other things, the financial aspects of pipeline abandonment;~~
- ~~• The internal and external communication of information relating to pipeline abandonment; and~~
- ~~• Identifying the documents required for the pipeline company to meet its obligation to abandon a pipeline.~~

Goal

~~As of 1 January 2015, The first section, Guide B.1, is about information requirements applicable to all CER-regulated pipeline companies. These information requirements are largely financial in nature.~~

~~The second section, Guide B.2, concerns the information needed to be filed for the physical activity of abandoning a pipeline.~~

~~The final section, Guide B.3, provides information requirements for those companies wanting to apply to access funds held in Abandonment Trusts.~~

B.1 Funding for Abandonment

CER-regulated pipeline companies must have a process and mechanism in place that will provide adequate funds to pay for pipeline abandonment. Companies ~~should~~are also expected to institute governance practices relating to pipeline abandonment, which are one component of the systematic approach required by the OPR.

B.1.1. Cost Estimates

Companies are required to file their ~~abandonment cost estimates~~Abandonment Cost Estimates (ACE) for ~~Commission~~Commission's approval. ~~Companies' filings should~~Any changes to an ACE must also be approved by the Commission. Companies must include Tables A-1 through A-4 from the National Energy Board's letter dated 4 March 2010, along with a description of the methodology and assumptions used to estimate costs. ~~Provide a~~A level of detail and technical description ~~should be provided to understand the estimate and its reasonableness. The Commission will regularly review ACE (at least every five years) to verify that any material changes to the pipeline system are reflected in the abandonment cost estimate, and that an appropriate~~ to allowing a person to form a reasonable understanding of the estimates to a reasonable level. ~~See for documents that describe cost categories, abandonment assumptions and methodologies~~

~~that have been used by companies and/or approved by the Commission in the past of funds is being set aside.~~

B.1.2 Protection of Funds

~~Pipeline companies are required to have a set-aside mechanism in place that will provide adequate funds to pay for pipeline abandonment. The set-aside mechanism must be filed with the CER, and approved by the Commission.~~ Pipeline companies must establish a trust or provide a letter of credit issued by a bank listed in Schedule ~~1~~ of the ~~Bank Act~~¹, or a surety bond supplied by a surety company regulated by the ~~Office of Superintendent of Financial Institutions~~. A model trust agreement, ~~letter of credit and surety bond~~ can be found in Reasons for Decision [MH-001-2013](#)~~MH-001-2013~~. ~~For information on accessing abandonment funds included in Models of a letter of credit or and surety bond, see can be found on the appropriate checklists and or CER's website under Financial Regulation of Group 2 Pipeline Companies.~~

B.1.2.1 Trusts

A trust can be a suitable mechanism to set aside funds for pipeline abandonment. However, the question of whether any particular trust is suitable depends on the terms and conditions that govern the trust. ~~Companies are encouraged to consult, regarding trusts. In particular, Appendix VI of the MH-001-2013~~its Reasons for Decision [MH-001-2013](#)sets, the National Energy Board set out the Indicative Terms for companies proposing trusts. ~~These should be viewed as the substantive to use a trust in Appendix VI, PDF pages 135-139. Companies using trusts must file a statement of investment policies and procedures for Commission approval, the minimum requirements for which can be found in Section 3.4.1 on PDF page 61 of Reasons for Decision MH-001-2013 that must be incorporated into a trust agreement. The Commission has also issued subsequent compliance decisions regarding companies filing trusts.~~

~~Companies proposing to collect abandonment funds from shippers to be set aside in the trust must file a tariff application, which includes their annual contribution amount, for Commission approval. The requirements are set out in Section 6.1.2 of Reasons for Decision MH-001-2013 on PDF page 118.~~

B.1.2.2 Letter of Credit

If a company is using a letter of credit ~~to set aside funds in regard to their funding for abandonment~~, the financial instrument must meet the criteria included in the checklist below. ~~To obtain funds please fill out~~Companies must file the information included in ~~or~~ letter of credit with the CER for approval by the Commission.

Letter of Credit Checklist:

- ~~Physical letter filed with the CER:~~ Ensure that the physical letter of credit is filed with the CER. ~~It must be the original signed letter of credit and not a duplicate copy nor a draft;~~
- Amount: The letter of credit must be equal to a company's approved ~~Abandonment Cost Estimate (ACE). The CER does not allow growing. Growing~~ letters of credit; ~~are not allowed.~~
- Beneficiary: The beneficiary must be identified as "Her Majesty the Queen in Right of Canada as represented by the Canadian Energy Regulator or any successor administrative body";
- ~~The letter of credit must reference the underlying regulatory obligations of the principal. For pipeline abandonment, the letter of credit should reference the CER Act, RH-2-2008 Reasons for Decision, the MH-001-2013 Reasons for Decision, and the Commission document approving the pipeline company's cost estimate;~~
- Duration: The letter of credit must automatically renew on an annual basis ~~(on 1 January each year)~~ without notice or amendment, and without a maximum number of renewals;
- Issuer: The issuer of the letter of credit must be a Canadian chartered bank set out on Schedule ~~1~~ to the *Bank Act*;

¹ *Bank Act*, S.C. 1991, c.46, schedule 1.

- Access to funds: The full amount of the letter of credit must be payable to the ~~beneficiary~~Beneficiary on demand upon presentation of the letter of credit at the bank's main Calgary branch; Alternatively, presentation of documents can be made by fax² where there is not a Calgary, Alberta branch;
- Notification: The ~~beneficiary~~Beneficiary must be notified by fax and registered mail (to the attention of the Secretary of the Commission) at least 60 days before the letter of credit may be cancelled or not renewed. Upon notification the ~~beneficiary~~Beneficiary must be entitled to draw the entire amount of the letter of credit; and
- Additional terms: The letter of credit must be irrevocable, non-transferable and non-assignable, and must be subject to the International Chamber of Commerce Uniform Customs and Practice for Documentary Credits ~~(, 2007 revision)~~; (UCP600).³

~~Source: (Reasons for Decision MH-001-2013, Adobe Page 111 and 112 of 176)~~

B.1.2.3 Surety Bond

If a company is using a surety bond in regard to set-aside funds~~their funding for abandonment~~, the financial instrument must meet the criteria included in the checklist below. Companies must file the surety bond with the CER for approval by the Commission.

Surety Bond Checklist:

- The surety must be regulated by the Office of the Superintendent of Financial Institutions (OSFI);
- The ~~obligee~~Obligee must be the “Her Majesty the Queen in Right of Canada as represented by the Canadian Energy Regulator or any successor administrative body”;
- The term of the surety bond must be indefinite. The surety bond may have a form of evergreen provision that automatically renews the surety bond unless notice of termination is given;
- The surety bond must be terminable by the surety providing 60 days' notice, with the ~~obligee~~Obligee then having a further 60 day period to make a written demand of the surety;
- The surety bond must be structured as an on-demand instrument. This may be accomplished by requiring the surety to pay the surety bond amount upon receiving a written demand of the ~~obligee~~Obligee consistent with the form of bond provided to the Ontario Minister of the Environment under Part XII of the *Environmental Protection Act* (Ontario);
- The surety bond must reference the underlying regulatory obligations of the principal. For pipeline abandonment, the bond should reference the ~~Canadian Energy Regulator Act~~, RH-2-2008 Reasons for Decision, the NEB or Commission document approving the pipeline company's cost estimate, and the ~~MH-001-2013~~-Reasons for Decision MH-001-2013; and
- The surety may fulfill its obligations under the bond by: (i) remedying the default, (ii) completing the pipeline company's abandonment obligations, or (iii) paying the bond balance to the CER. If these options are set out in the surety bond, then the CER must have the discretion to choose among them.

~~Source: (Reasons for Decision MH-001-2013, Adobe Page 113 of 176)~~

B.1.3 Regular Reporting

All companies must file an annual update with respect to abandonment funding ~~by 31 January of each year.~~ The annual reporting form for companies using a trust ~~can~~must be filed by 30 April each year and can be found here: [Reporting Form – Companies using Trusts for Set-aside mechanism](#)~~found in Appendix XV of Reasons for Decision MH-001-2013.~~ The annual reporting form for companies using a letter of credit or surety bond must be filed by 31 January and can be

² The CER will periodically consider whether alternative methods of presentation and notification are acceptable, generally concurrent with the timing of the review of abandonment cost estimates.

³ The CER will consider updates to UCP600 when they are available, to be addressed concurrent with the timing of the review of abandonment cost estimates.

found ~~in Appendix XVI of Reasons for Decision MH-001-2013~~ [here: Reporting Form – Companies using Set-aside mechanisms other than Trusts, and Exempt Companies.](#)

B.2 Applications to Abandon (CER Act ~~s-~~subsection 241(1) and OPR ~~s-~~section 50)

~~s-~~Section 50 of the OPR states:

50. A company shall include in an application made under section ~~{241}~~ of the Act for leave to abandon a pipeline or a part of one, the reasons, and the procedures that are to be used, for the abandonment.

Goal

The application must include the rationale for the abandonment project, the method(s) of abandonment, and the measures to be employed ~~in the abandonment~~ as well as evidence that:

- the proposed abandonment will be carried out in a technically safe manner;
- potential environmental, socio-economic, lands, economic and financial effects are identified; ~~and addressed; and~~
- sufficient notification has been given to all owners and users of lands, including landowners, Indigenous communities, and other persons who anticipate that their lands are/may be potentially affected ~~are sufficiently notified and have their rights protected.~~

B.32.1 Filing requirements and guidance

General Requirements–

Provide the following:

1. A complete description of the pipeline(s) and facility(ies) being abandoned. For pipelines, this must include, but not be limited to, the history of products carried, length, diameter, wall thickness and coating type. Companies should consider any other information that is relevant to the pipeline and its operation that would assist the Commission in assessing the abandonment application.
2. Appropriately scaled map(s) or site plan(s) which shows the locations and dimensions of the pipeline right of way and the facility(ies) to be abandoned.
3. The GPS data coordinates of the locations of pipeline right of way and the facility(ies) to be abandoned.
4. A description of known temporary workspace required for abandonment activities, including location and dimensions.
5. Photomosaic maps or alignment sheet(s) which show the pipeline right of way and facility(ies) overlain on satellite or aerial imagery and any areas of temporary workspace. If not available, provide photographs showing facilities and at sufficient intervals to show the full length of the right of way.
6. Reasons for abandonment of operation of the pipeline and facility(ies).
7. An explanation of the abandonment method options (abandonment in-place, removal, segmentation, fill) considered, and rationale for the chosen option(s), including how such factors as land use, safety, potentially affected peoples and communities, property, impacted and potentially impacted engineered structures⁴, environment and economics were identified, considered and managed.
8. A description of the proposed physical activities to be carried out to abandon the pipeline and facility(ies).
9. Proposed schedule for the various abandonment activities to be conducted, including any reclamation, to be conducted.
10. A description of the type, frequency and duration of monitoring to be conducted of the facilities that will remain in place.

⁴ “engineered structures” include foundations (buildings, bridges, towers, rail beds, etc.), slope stability structures, water drainage structures, and crossings of other infrastructure (powerlines, other pipelines, telecom systems, etc.).

Engineering

~~1. Confirm~~ Provide the following:

1. For pipelines to be abandoned in place or removed, confirmation that the abandonment activities will follow the requirements of the latest version of CSA Z662.

~~2. Provide:~~

- ~~• a rationale for the abandonment;~~

2. For pipelines to be abandoned in place, confirm or provide the following:

- no internal pressure remaining;
 - purged and cleaned and left in a state of minimal residual contamination, including the pipe cleaning procedures and standards to be used;
 - left in a complete state where road, railway or utility crossings are not at significant and unmanaged risk of disturbance due to settlement;
 - equipped with signage;
 - a description of the facilities being abandoned fill material to be used for railway and road crossings, if applicable (abandonment in place with special treatment), including where along the pipeline fill material will be used and why;
 - an assessment a description of the potential safety hazards related to soil subsidence, pipe exposure, water conduit, corrosion, and pipe collapse effects for pipelines to be abandoned in place, including anticipated duration to failure, and a plan to monitor these potential effects; and
 - a plan for maintaining adequate depth of cover for existing and future land use, as informed by the company's environmental and socio-economic assessment and engagement activities.
3. In the event that cathodic protection is not maintained, identify and justify if ground bed anodes will be removed or left in place.
 4. A description of ruptures, leaks and other loss of containment incidents that have occurred on the pipeline and the facility(ies), including the dates and volumes of the substance releases.
- ~~2.5. Confirmation that abandonment and the mitigative actions planned to reduce such hazards; and activities and the abandoned pipeline will not impact engineered structures (e.g., roads, utilities, infrastructure, drainage, modified slopes, foundations).~~

Guidance – Engineering

Companies may be required to submit a plan that identifies, evaluates, and manages all hazards and risks associated with the abandonment activity and for areas where the pipeline is abandoned in place, including a description of the controls used to address these hazards and risks. The plan shall include a cleaning plan for any pipeline that will be abandoned in place.

CSA Z662 contains requirements for abandonment of pipeline systems. This standard is referenced in the OPR and must be adhered to as such. Companies are advised that the standard is updated on an ongoing basis and to remain current in their adherence to the requirements.

CSA Z341 contains requirements for abandonment of underground formations used for the storage of hydrocarbons.

- ~~• a plan outlining how the facility will be prepared for abandonment and how it will be monitored, if necessary, during its abandonment.~~

~~3. Pipeline abandonment details—please refer to the Engineering section in~~

~~B.4 Filing Requirements – Environment~~ **Environmental and Socio-economic Assessment**

Additional information...

~~An ESA is required for applications for abandonment. See A for filing requirements in addition to those in this Guide.~~

- ~~1. Describe the different ecological settings and socio-economic setting found at the project location and identify the different land uses that are or will be in place, if known. For projects that are situated in a forested or native prairie setting, additional detailed baseline vegetation information may be required.~~
 - ~~2. Identify The description should indicate whether or not the proposed abandonment is located on federal lands⁵.~~
 - ~~3. Using the Table 1 of this guide:
 - ~~i. Categorize the pipeline right of way by land use (for example, agricultural lands, forested lands, native prairie, developed lands, wetlands, watercourse crossings). If any known or reasonably foreseeable development is anticipated for any part of the right of way, include these areas in the table; and~~
 - ~~ii. For each land-use segment of the pipeline, provide a high-level assessment of the potential short-term and long-term environmental and socio-economic effects on each valued environmental and socio-economic component that may result from the pipeline being abandoned in place and/or removed, regardless of the preferred abandonment method.~~~~
 - ~~4. For the preferred abandonment method(s), complete the environmental and socio-economic interactions table (see Table 2 of this guide).~~
 - ~~5. Provide an environmental and socio-economic assessment for the preferred abandonment method when the circumstances outlined in Table A-1 of the Filing Manual indicate that additional detailed biophysical and socio-economic information is required. The filing requirements are outlined in Table A-2 (Biophysical Elements) and Table A-3 (Socio-Economic Elements) of the Filing Manual.~~
 - ~~6. Provide a copy of the Phase I Environmental Site Assessment (ESA) conducted for the pipeline right of way and associated facility(ies), as per the guidance in the most recent version of CSA Standard Z768. The Phase I ESA should identify all areas of known and potential soil contamination, and include an evaluation of the status of any existing contamination currently documented or contamination previously remediated, as per the most recent version of CER's Remediation Process Guide. Provide a list of previously reported contaminated sites along the pipeline right of way and associated facility(ies), including CER-assigned Remediation Event Number(s).~~
 - ~~7. If the results of the Phase I ESA indicate that a Phase II ESA is warranted, provide a copy of a Phase II ESA plan that describes the procedures to be implemented for investigating all existing or potential contamination identified in 1) in which each the Phase I ESA, including sampling methodology. The Phase II ESA should be conducted as per the guidance provided in the most recent version of CSA Standard Z769-00, Phase II Environmental Site Assessment.~~
 - ~~2.8. Provide an Environmental Protection Plan (EPP), or a description of the environmental protection procedures and measures that will be implemented during the physical abandonment, remediation, and reclamation activities to avoid or minimize potential adverse environmental and socio-economic effects. The level and detail of information should be commensurate with the nature and scale of the project components to be abandoned is located.~~
- ~~3. Describe and justify the methods that will be used to clean up any contamination found at the project component sites and:~~
- ~~• quantify the amount of contamination that may exist;~~
 - ~~• describe special handling techniques that will be used; and~~
 - ~~• identify regulatory requirements that will be followed for cleanup and disposal.~~
- ~~4. For each project component, describe:~~
- ~~• how and when it will be abandoned;~~

⁵ See definition of "federal lands" in section 2 of the *Impact Assessment Act*; and refer to sections 81 and 84 of the *Impact Assessment Act*

- the desired goal(s) for reclamation, including restoration (where applicable), for the entire length and width of the pipeline right of way and facility sites (not just limited to the physical disturbance sites), and provide a plan for how the environment will be reclaimed ; and
- how the abandonment is appropriate for the ecological setting where it is located.

3.9.5. Use an appropriate level of detail and technical description to allow regulators, the public and others to thoroughly understand what is being proposed. achieve the desired goal(s).

10. Provide a preliminary Reclamation Monitoring Plan which describes the reclamation/restoration parameters to be monitored, the criteria that will be used to monitor the success of those parameters, and the monitoring methods that will be used. Describe the criteria for when adaptive or corrective actions will be implemented, and provide a schedule of when monitoring will be conducted and the results reported to the CER.

Guidance – Environmental and Socio-economic Assessment

- As noted in the Filing Manual section A.2.4 Level of Detail, the depth of analysis should be commensurate with the nature of the project and the potential for effects.
- Assessments and studies should be provided to support the selection of abandonment in place or removal of the pipeline.
- Where a detailed environmental and socio-economic assessment is required, refer to Tables A-2 and A-3 of the Filing Manual.
- For pipeline segments which are being proposed to be abandoned in place, the following information should be considered in the assessments provided (including the required Tables 1 and 2 of this guide):
 - the potential environmental and socio-economic effects that may result from the abandonment activities (including reclamation);
 - the potential environmental and socio-economic effects that may result from the abandoned pipeline remaining in place over the long-term; and
 - the environmental and socio-economic risks of the abandoned pipeline remaining in place (e.g., water conduit effect, pipeline exposure, ground subsidence) and the mitigation measures to be implemented to reduce those risks (e.g., segmentation, fill), including an explanation of how those measures will sufficiently reduce the risks identified.
- The environmental and socio-economic assessment should include a discussion of alternative means that were considered to reduce any potential greenhouse gas emissions of the project, and how the preferred option was chosen (for example, alternatives to venting gas).
- If cathodic protection systems are proposed to be abandoned in place, the assessment should include consideration of the potential effects that may result from that infrastructure remaining in place over the long term (e.g., soil and groundwater contamination potential).
- For projects that may traverse through the Environment and Climate Change Canada (ECCC)-designated critical habitat, the CER expects applicants to consider that critical habitat when determining reclamation goals. In these cases, additional restoration measures (e.g., tree planting, access control measures) may be warranted to align the goals with the relevant ECCC Recovery Strategy or Action Plan for that species. Applicants should consult with ECCC and appropriate provincial authorities regarding the proposed project prior to application submission.
- Once contamination has been confirmed by analytical testing, a notice of contamination must be submitted to the CER as soon as possible in accordance with the CER's *Remediation Process Guide*.
- The EPP, or the environmental protection procedures, should include a contingency plan to be implemented in the event that previously unidentified contamination is identified (including measures to be implemented in accordance with the CER's *Remediation Process Guide*).
- A condition on the Abandonment Order may be imposed to require the applicant to file reclamation/restoration monitoring reports after the completion of physical

abandonment activities. The time period for required reporting can vary and is dependent upon the method of abandonment, mitigation measures applied and nature of the environmental setting. Projects requiring a longer period of time to reach reclamation/restoration goals may be required to submit monitoring reports of greater scientific rigour or over a longer time period.

Engagement

The CER expects applicants to perform engagement activities for all projects depending upon the respective project scope. Companies must justify the extent of engagement carried out for each project. In designing engagement activities, companies can refer to Chapter 3.4 of the [Filing Manual](#).

1. Provide a summary of the engagement activities that have been undertaken for the abandonment project, with potentially impacted persons and communities, including:
 - owners and users of lands;
 - Indigenous peoples and communities;
 - occupants;
 - land managers (Crown);
 - federal, provincial or municipal agencies or levels of government;
 - shippers; and
 - other commercial third parties who could be affected by the project.

The summary of engagement should include, at minimum:

- i. a description of any issues or concerns for each abandonment method(s) identified;
 - ii. how input from the engagement activities was considered in determining the proposed abandonment method(s);
 - iii. how input from the engagement activities was considered in the development of the applicant's preliminary reclamation plan;
 - iv. a description of how the applicant has addressed or will address any concerns or issues raised and when;
 - v. a description of any concerns or issues raised that will not be addressed and why; and
 - vi. a description of any outstanding concerns, including how the applicant intends to address any outstanding concerns, or an explanation as to why no further steps will be taken.
2. Provide any details of consultation undertaken for developing reclamation plans.
 3. Provide evidence in the application of sufficient notification of the application filing to the CER.

Lands

Describe any land rights proposed to be acquired for the abandonment, including the location and dimensions of the land rights. Provide a description of the land tenure along the right of way, including the approximate length of the pipeline segments that are located respectively along freehold, Federal or Provincial Crown land. For a description of types of land rights, refer to Guide A.4 of the [Filing Manual](#). Describe any regulatory requirements for reclamation and remediation and how these requirements will be met.

7. Identify historical spills and releases that have occurred on the area to be abandoned.

1. B.5 Filing Requirements—
2. If any land acquisition agreements will be disposed;
 - i. identify the locations where land acquisition agreements will be disposed
 - ii. identify the proposed timing of disposition and process to notify landowners; and,
 - iii. describe the process available to the landowner should subsequent land issues or concerns arise following the abandonment of the facility and disposition of the easement.

Economics and Finance

~~See for documents related to estimating costs of abandonment, including provision for post-abandonment funding.~~

1. ~~1.~~ Provide details of the estimated costs associated with the proposed abandonment, including details of any estimated costs for ~~post-abandonment long-term maintenance and monitoring and, as well as~~ contingency ~~funds for unforeseen events, of any pipelines abandoned in place~~⁶.
 2. ~~2.~~ Confirm that funding is and will be available to finance the proposed abandonment project, and ~~explain~~ indicate how the proposed abandonment project will be funded (through the trust, tolls or other).
 - a. If funding is through the abandonment trust, indicate whether applying to access the abandonment trust in this application or in a subsequent application.
 - i. If applying to access the abandonment trust to pay for the abandonment activities in this application, provide the information required for accessing a trust found in section B.3.
 - a.b. Explain how funding will be available for ~~post-abandonment activities (both monitoring and coverage in the event of any future unforeseen events).~~³.
 3. Indicate whether any service would be terminated as a result of the proposed abandonment. If a commercial party or other user could be negatively impacted by the termination of service, provide evidence that:
 - a. the Company has been responsive to the needs, inputs, and concerns of commercial parties or other users;
 - b. the relative impacts to all parties from the abandonment of the facilities versus continuation of service have been considered;
 - c. alternatives to the abandonment of the facilities were considered (including physical and tolling alternatives) and that abandonment is the optimal outcome; and
 - d. impacted parties will be able to wait until after the Commission issues its decision on the application to make any potentially costly, irreversible choices to continue their business operations after abandonment activities have been completed. If this is not the case, provide evidence justifying why not.
- ~~2.4.~~ Provide the original book cost of the facilities and accumulated depreciation to the retirement date.
- a. ~~4.~~ Explain any impact on remaining rate base, providing accounting details as outlined in the ~~(GPUAR) or (OPUAR), including details of~~ Describe whether the retirement is ordinary or extraordinary.

B.6 Filing Requirements — ~~Lands~~ Information

1. ~~Describe the location and the dimensions of the existing RoW and facility lands that would be affected by the abandonment.~~
2. ~~Provide a map or site plan of the pipeline or facility to be abandoned.~~
3. ~~Identify the locations and dimensions of known temporary work space required for the abandonment.~~
4. ~~Describe any easement proposed to be acquired for the abandonment, including the location and dimensions of the easement.~~
5. ~~Provide a record of public engagement activities that have been undertaken for the abandonment. This record should include a description of:~~
 - ~~all discussions with landowners regarding the easement;~~

⁶ These activities correspond to Cost Category 3b in Table A3, Revision to Preliminary Base Case Assumptions, set out in the RH-2-2008 Reasons for Decision.

- ~~• a summary of any issues or concerns identified by the landowner regarding the easement, surrendering of the easement or the lands proposed to be acquired; and~~
- ~~• how the applicant proposes to address any concerns or issues raised by potentially affected people or landowners or an explanation as to why no further action is required.~~

~~6. Provide the details of any reclamation plans developed in engagement with landowners affected by the proposed abandonment.~~

~~7. If any easement will be surrendered:~~

- ~~• identify the lands where easement will be surrendered;~~
- ~~• describe the contingency plans that will be put in place to protect the landowner should subsequent land issues arise following the abandonment of the facility and surrender of the easement; and~~
- ~~• file evidence to demonstrate that affected landowners have been advised of the proposed abandonment.~~

Guidance

Environment and Socio-economic

Abandonment Plan

An application to abandon the operation of a pipeline could include an abandonment plan tailored to the individual project and should include input from interested parties such as:

- ~~• landowners;~~
- ~~• Indigenous peoples;~~

~~• occupants;~~

~~b. Explain any impact on remaining ratebase, providing accounting details as outlined in the *Gas Pipeline Uniform Accounting Regulations (GPUAR)* or *Oil Pipeline Uniform Accounting Regulations (OPUAR)*.~~

~~5. Provide, along with supporting documentation, any relevant exemptions the Applicant has been granted by the Commission with respect to 3 or 4 above.~~

Guidance – Economics and Finance

Abandonment Costs

Describe the methodology and assumptions used to estimate costs. Provide a level of detail and technical description appropriate to allow regulators, the public, and others to understand the estimates to a reasonable level.⁷ For example, where pipe is proposed to be left in the ground, describe plugging intervals and costs. Where facilities are proposed to be removed, identify the costs for dismantling and removal, reclamation, any remediation, and, where relevant, the costs and expected proceeds from salvage activities, including the timing of receipts of salvage proceeds.

In addition, include information for the topics below in your submission:

Liability Exposure

A description of future liabilities including:

- the types of each liability and an estimate of the associated cost; and
- a statement of which abandonment work is associated with a legal obligation and which work is not.

⁷ See Chapter 7 Referenced Documents, Abandonment Funding and Planning for documents that describe cost categories that the CER has found useful in examining cost estimates.

Financing

The confirmation that funding is and will continue to be available to fund the abandonment should include:

- an explanation of the economic feasibility of the abandonment; and
- the expected toll treatment and toll impact, including:
 - an explanation of how the tolls were determined;
 - the expected impact, if any, on shippers and other parties;
 - a statement regarding the extent of shippers' and other parties' support for any toll increase; and
 - describe any funding, financial guarantees or other arrangements designed to cover these costs.

If applying to access the trust, see guidance under section B.3.

Provisions for long-term monitoring and maintenance activities

- Provide a description of the mechanisms to be used to set aside funds for these activities.
- Provide information for landowners regarding the company's intent to access the trust.
- Provide estimates of average annual future costs, in current year dollars, for these activities, as well as the number of years for which the company believes it is to be responsible for such activities.

Termination of Service

In addition to the information required and guidance provided in Chapter 3.5, if the application would result in the termination of service currently provided to any party, and a commercial party or other user could be negatively impacted by the termination of service, provide the following:

- A description of the process used to assess and identify facilities for abandonment on the pipeline system. In addition, describe how this process was developed (including the consultations that informed the process), how it provides shippers or other users with the ability to meaningfully plan for and mitigate the impacts of potential terminations of service, how it has been communicated to parties and how it ensures equitable treatment of shippers and other users across the pipeline system.
- Sufficient detail to demonstrate that the proposed abandonment construction schedule does not create unnecessary uncertainty for impacted commercial parties or other users, so as to require them to make costly, irreversible choices to continue their operations prior to a Commission decision on the abandonment application.

Accounting Treatment

The GPUAR or OPUAR prescribe the accounting treatment for both ordinary and extraordinary retirements, including informing the CER if the gain or loss on an extraordinary retirement is material.

B.2.2 Reference documents – physical and technical issues related to abandonment

The National Energy Board, in 2009, published a Land Matters Consultation Initiative report which recommended that knowledge gaps on the physical issues of pipeline abandonment be addressed. Det Norske Veritas (DNV) was commissioned to conduct a literature review regarding the current understanding worldwide with respect to the physical and technical issues associated with onshore pipeline abandonment and use the results of the literature review to critically analyze and identify gaps in current knowledge, and make recommendations as to potential future research projects that could help to fill those gaps (DNV Scoping Study).

Canadian Energy Pipeline Association and Petroleum Technology Alliance Canada (PTAC) have established the Pipeline Abandonment Research Steering Committee to guide and direct innovation and applied research, technology development, demonstration, and deployment to

address knowledge gaps summarized in the DNV Scoping Study. Following are the studies that have been completed and can be found on the [PTAC website](#).

1. Understanding the Mechanisms of Corrosion and their Effects on Abandoned Pipelines
2. Frost Heave Effects on Pipeline Exposure Rates
3. Decomposition of Pipe Coating Materials in Abandoned Pipelines
4. Cleaning of Pipelines for Abandonment
5. Water Conduit Effect in Abandoned Pipelines
6. Review of Previous Pipeline Abandonment Program – TransCanada Peace River Mainline
7. Potential Impact of Power Lines on Corrosion of Abandoned Pipelines
8. Analysis of Pipeline Exposure Data and Scoping Review of Exposure Scenarios
9. Review of Previous Pipeline Abandonment Program – Phase 3 Abandonment on Farmland
10. Risk-Based Decision Making Framework for Pipeline Abandonment

B.3 Applications to Access Funds from the Trust to Fund Abandonment

In the [MH-001-2013 Reasons for Decision](#), the National Energy Board re-affirmed that funds set aside for pipeline abandonment purposes can be made available for abandonments, decommissioning and deactivation. Below is the information required when submitting an application to access funds from a trust.

1. Provide a justification for requesting access to funds from the trust. Include:
 - a. Why other revenue is not sufficient to undertake the work;
 - b. The impact on future tolls or abandonment surcharges, relative to other funding options; and
 - c. Any impacts on the abandonment cost estimate and annual contribution amount from removing funds for end of life work.
- ~~• Provide the actual costs of the project, broken down by cost category and abandonment activity, as reflected in Table A3 and A4 of the [MH-001-2013 Reasons for Decision](#) and managers;~~
 - ~~• lessees;~~
 - ~~• municipal agencies (federal or provincial);~~
 - ~~• shippers; and~~
 - ~~• upstream and downstream users.~~

~~If an abandonment plan is shared with interested parties, any comments from these stakeholders should be considered and, where appropriate, incorporated into the plan. Environmental, safety and land use issues may all be considered in the application. The application may also address reclamation of sites where surface facilities have been or will be removed and the management of any pipeline components that will be maintained in a deactivated state.~~

~~Abandonment in place or Removal of Pipeline~~

~~Assessments and studies should be provided to support the choice between abandonment in place or removal of the pipeline. If the pipeline is to be removed, assess the impact of the removal on the environment. If the pipeline is to be abandoned in place, refer to CSA Z662.~~

~~Additional Information~~

~~The following discussion papers were authored collectively by the NEB, Alberta Energy and Utilities Board, Canadian Energy Pipeline Association and Canadian Association of Petroleum Producers and provide guidance on responsible abandonment and methods of approach:~~

- ~~• dated 1996.~~
- ~~• Legal Issues Relating to Pipeline Abandonment: A Discussion Paper dated 1997~~

~~In 2009, the NEB's Land Matters Consultation Initiative, a public forum to discuss various landowners concerns, generated a report, in part identifying the need for clarification on how pipeline abandonment is monitored.~~

~~Additional information can also be obtained in the , available on the CCME website.~~

~~Economics and Finance~~

~~Abandonment Costs~~

~~See for documents that describe cost categories that the Commission has found useful in examining cost estimates. Describe the methodology and assumptions used to estimate costs. Provide a level of detail and technical description appropriate to allow regulators, the public, and others to understand the estimates to a reasonable level.~~

~~For example, where pipe is proposed to be left in the ground, describe plugging intervals and costs. Where facilities are proposed to be removed identify the costs for dismantling and removal, reclamation, any remediation, and, where relevant, the costs and expected proceeds from salvage activities, including the timing of receipts of salvage proceeds.~~

~~Liability Exposure~~

~~The description of future liabilities should include:~~

- ~~• the types of each liability and an estimate of the associated cost; and~~
- ~~• a statement of which abandonment work is associated with a legal obligation and which work is not.~~

~~Financing~~

~~The confirmation that funding is and will continue to be available to fund the abandonment should include:~~

- ~~• an explanation of the economic feasibility of the abandonment; and~~
- ~~• the expected toll treatment and toll impact, including:~~
- ~~• an explanation of how the tolls were determined;~~
- ~~• the expected impact, if any, on shippers and other parties;~~
- ~~• a statement regarding the extent of shippers' and other parties' support for any toll increase; and~~
- ~~• describe any funding, financial guarantees or other arrangements designed to cover these costs.~~

~~Provisions for Post-abandonment~~

- ~~2. Provide a description about the mechanisms to be used to set aside funds for post-abandonment activities.~~
- ~~3. Describe the accounting treatment that will be used for net salvage (salvage value less end of life costs), if any, and any associated impacts on rate base.~~
- ~~4. Provide an explanation of the impact on the coverage for other future costs of remaining activities needed to complete abandonment.~~
- ~~5. Provide an abandonment funding plan, which includes:~~
 - ~~a. Preliminary timelines for abandonment activities;~~
 - ~~b. Preliminary plans for drawing on the funds, including cash needs;~~
 - ~~c. A preliminary forecast of the annual balance of funds to be set aside each year; and~~
 - ~~d. In circumstances where abandonment activities are not anticipated prior to the end of the collection period, adequate market information to justify the use of the same collection period for all components of the system.~~
- ~~6. If the costs were for decommissioning activities, confirm that the activities done during decommissioning will not be need to be repeated at time of abandonment and therefore the costs that have been incurred will not be need to be repeated.~~
- ~~7. If the decommissioning/abandonment activities are completed, provide all relevant approvals for those activities.~~

Table 1: Comparison of predicted effects from Abandoning in place and removal

<u>Valued Component</u>	<u>Land-use</u>									
	<u>E.g. Forested</u>		<u>E.g. Native Prairie</u>		<u>E.g. Wetlands</u>		<u>E.g. Watercourse crossings</u>		<u>E.g. Developed lands</u>	
	<u>Effects of Abandon in place</u>	<u>Effects of Removal</u>	<u>Effects of Abandon in place</u>	<u>Effects of Removal</u>	<u>Effects of Abandon in place</u>	<u>Effects of Removal</u>	<u>Effects of Abandon in place</u>	<u>Effects of Removal</u>	<u>Effects of Abandon in place</u>	<u>Effects of Removal</u>
<u>Physical and Meteorological Environment</u>										
<u>Soil and Soil Productivity</u>										
<u>Vegetation</u>										
<u>Water Quality and Quantity</u>										
<u>Fish and Fish Habitat</u>										
<u>Wetlands</u>										

<u>Wildlife and Wildlife Habitat</u>										
<u>Species at Risk, or Species of Special Status, and Related Habitat</u>										
<u>Air Emissions and GHG Emissions</u>										
<u>Acoustic Environment</u>										
<u>Human Occupancy and Resource Use</u>										
<u>Heritage Resources (both Crown and private lands)</u>										
<u>Navigation and Navigation Safety</u>										

<u>Indigenous Traditional Land and Resource Use</u>										
<u>Socio and Cultural Well-Being</u>										
<u>Human Health or Aesthetics</u>										
<u>Infrastructure and Services</u>										
<u>Employment and Economy</u>										
<u>Rights of Indigenous peoples</u>										
<u>Accidents and Malfunctions</u>										
<u>Effects of the Environment on the Project</u>										

<u>Other</u> <u>(please</u> <u>specify)</u>										
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Table 2 – Environmental and Socio-Economics Interactions Table

<u>Element</u>	<u>Interaction (Yes or No)</u>	<u>Status of element – specific study or survey (complete, underway, date expected , or underway)</u>	<u>Description of potential effects</u>	<u>Mitigation will be implemented to address potential adverse effects (Yes or No)</u>	<u>Description of mitigation to be applied</u>	<u>Description of residual effects after mitigation, including the spatial and temporal extent of the effects</u>	<u>Specify if there will likely be an interaction between the predicted residual effects of the project and the effects of other projects or activities that have been or will be carried out (Yes or No). If Yes, describe the cumulative effects.</u>	<u>Monitoring Plan and Details</u>
<u>Physical and Meteorological Environment</u>								
<u>Soil and Soil Productivity</u>								
<u>Vegetation</u>								
<u>Water Quality and Quantity</u>								
<u>Fish and Fish Habitat</u>								
<u>Wetlands</u>								
<u>Wildlife and Wildlife Habitat</u>								

<u>Species at Risk, or Species of Special Status, and Related Habitat</u>								
<u>Air Emissions and GHG Emissions</u>								
<u>Acoustic Environment</u>								
<u>Human Occupancy and Resource Use</u>								
<u>Heritage Resources (both Crown and private lands)</u>								
<u>Navigation and Navigation Safety</u>								
<u>Aboriginal Traditional Land and Resource Use</u>								
<u>Socio and Cultural Well-Being</u>								

<u>Human Health or Aesthetics</u>								
<u>Infrastructure and Services</u>								
<u>Employment and Economy</u>								
<u>Rights of Indigenous peoples</u>								
<u>Accidents and Malfunctions</u>								
<u>Effects of the Environment on the Project</u>								
<u>Other (please specify)</u>								

- ~~• Provide information for landowners regarding access to funds.~~
- ~~• Provide estimates of average annual future costs for post-abandonment activities, as well as the number of years for which the company believes it is to be responsible for such activities.~~

Accounting

~~The GPUAR or OPUAR prescribe the accounting treatment for both ordinary and extraordinary retirements, including informing the Commission if the gain or loss on an extraordinary retirement is material.~~

~~Next Steps...~~

~~File the completed application. Applicants are encouraged to include the completed relevant checklists from.~~

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