



PIPELINE OPERATIONS MANUAL April 2013

Version 1.14

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Manual Revisions

Summary of Revisions

The Pipeline Operations Manual has been revised based upon feedback to provide clarity in terms of requirements and process. Structural changes by section are highlighted below.

Applications received on or after the effective date will be required to meet the revised application standards.

Effective Date	Section	Description/Rationale
1-Jan-2013	General	Several updates have been made to various sections of the manual. Users are encouraged to review the manual in full. Changes to note include: as-built requirements and submissions, pipeline permit engineering amendments, incident reporting procedure, etc. The inline testing section has been removed, and new appendices have been added.
1-May-2013	Section 10	Updated Amendment to Abandon section to include the requirement to submit an updated as-built (p.69).
	Section 12	Added sections on notification procedures (p.76) and repair procedures (p.77). Updated the Incident Reporting Requirements section (p.77).

1 Preface

Purpose

This manual has been created to guide users through Commission processes and procedures. It also serves to highlight changes in process, procedure, requirements and terminology resulting from the Oil and Gas Activities Act (OGAA).

For users already familiar with the Commission application process, this manual provides a quick reference highlighting the steps required to complete specific tasks. For users less familiar, this manual presents a complete overview of Commission requirements and provides links to more detailed material.

This manual is not intended to take the place of the applicable legislation. The user is encouraged to read the full text of legislation and each applicable regulation and seek direction from Commission staff, if and when necessary for clarification.

Scope

This manual focuses exclusively on requirements and processes associated with the Commission's legislative authorities, and do not provide information on legal responsibilities that the Commission does not regulate. It is the responsibility of the applicant or permit holder to know and uphold its other legal responsibilities.

This manual is limited to pipeline applications, amendments, and NOIs. Pipelines are defined as all piping from pig sending barrel to pig receiving barrel including all segments, risers, and appurtenances in between. For pipelines without pig barrels, the pipeline will include the last valve on the riser (or below ground valve) prior to the facility tie-in. This transition may occur inside or outside the lease boundary.

For facility applications, amendments, and NOIs please refer to the [Facility Application and Operations Manual](#).

How to Use This Manual

This manual is divided into sections which are organized chronologically, and match the order of the steps which applicants and permit holders will follow when engaging in oil and gas activities.

Beginning with pre-application, the manual takes the user through the steps of application preparation and submission; and permit revision and amendment. This manual describes what permit holders must take into consideration while planning pipeline construction, operational, and maintenance activities. Each section begins with a brief overview describing the content which follows.

- Section 2 Pre-Application Requirements** outlines what companies new to British Columbia need to have in place before applying for oil and gas permits.
- Section 3 Pipeline Construction and Operation Process** illustrates and explains the key steps in the construction and operation of a pipeline.
- Section 4 KERMIT Overview** shows the basic components that are general to all KERMIT submission types.
- Section 5 Pre Construction** details regulatory planning and notification requirements that must be completed before a permit holder commences pipeline construction.
- Section 6 During Construction** details the two types of pressure tests submitted for pipeline operation; shop test and pressure test.
- Section 7 Commencing Operations** details what the permit holder must submit prior to the operation of a pipeline through the Leave to Open process.
- Section 8 Post Construction** Shows how to complete the As-Cleared Plan Form, and details requirements for issuance of Licence of Occupation, Issuance of Certificate of Operations, and As-Built submission.
- Section 9 Notice of Intent** Shows how and when to submit the various notices required when proposing operational changes, modifications and repairs.
- Section 10 Pipeline Permit Engineering Amendments** details how to submit changes that require a pipeline permit amendment in KERMIT.

Section 11 Integrity Management and Damage Prevention Programs

describes what is required of permit holders when implementing these programs.

Section 12 Incident Reporting explains the process for reporting incidents and spillage.

Section 13 Compliance describes contravention of legislation and regulation and administrative penalties.

Additional Guidance

Guidance for submitting applications for pipeline projects within the jurisdiction of the Commission is located in the Commission's [Pipeline Permit Application Manual](#).

Guidance for pipeline tenures is found in the Commission's [Corporate Land Management Manual](#).

Guidance for BC registration of NEB pipelines can be found in the Commission's [NEB Pipeline Provincial Authorizations Application Manual](#).

The [glossary](#) can be found in Appendix A of this manual. The appendices contain documents to be used as reference when compiling information required by the Commission. Other navigational and illustrative elements used in the manual include:

Hyperlinks: Hyperlinked items appear as blue, underlined text. Clicking on a hyperlink takes the user directly to a document or location on a webpage.

Sidebars: Sidebars highlight important information such as a change from an old procedure, new information, or reminders and tips.

Figures: Figures illustrate a function or process to give the user a visual representation of a large or complex item.

Tables: Tables organize information into columns and rows for quick comparison.

Frequently Asked Questions

A [Frequently Asked Questions](#) (FAQ) link is available on the Commission website. The information provided is categorized into topics which reflect the manuals for easy reference.

Feedback

The Commission is committed to continuous improvement by collecting information on the effectiveness of guidelines and manuals. Clients and stakeholders wishing to comment on Commission guidelines and manuals may send constructive comments to OGC.Systems@bcogc.ca.

2 Pre-Application Requirements

Because the Master License to Cut Application and the ePASS submission processes are generally not applicable to the pipeline operations processes, information on these subjects is only found within the Pipeline Permit Application Manual.

Companies applying to engage in oil and gas activities in British Columbia (B.C.) for the first time must ensure all pre-application requirements have been met. These include the New Permit Holder Application Form, and a Master Licence to Cut Application (MLTC), and ePASS submission.

In addition to these pre-application requirements, the Commission may require a company to provide a security to ensure the performance of an obligation under the Oil and Gas Activities Act (OGAA) prior to, during, or after the permit application process, in accordance with Section 30 of OGAA. Engineering firms new to B.C. must also complete the applicable portions of the new permit holder application form before they can submit engineering details on behalf of an oil and gas applicant or permit holder. Once completed, engineering firms will be eligible to access the Commission's KERMIT database.

New Permit Holder Application Form

The new permit holder application form captures general administrative and corporate registry information.

Completed New Permit Holder Application Forms and required attachments are to be submitted to the Commission's Corporate Land Management Unit. New Permit Holder Application Forms have to be processed by the Commission before any permitting documentation is submitted to the Commission.

For more information on the New Permit Holder Application Form, please refer to the Commission's [Corporate Land Management Manual](#).

BC One Call

Section 7 of the Pipeline and Liquefied Natural Gas Facility Regulation (PLNGFR) states that a permit holder must not operate a pipeline approved by a permit unless the permit holder is a member of BC One Call.

For more information on BC One Call, visit the [BC One Call](#) website.

3 Pipeline Constructions and Operation Process

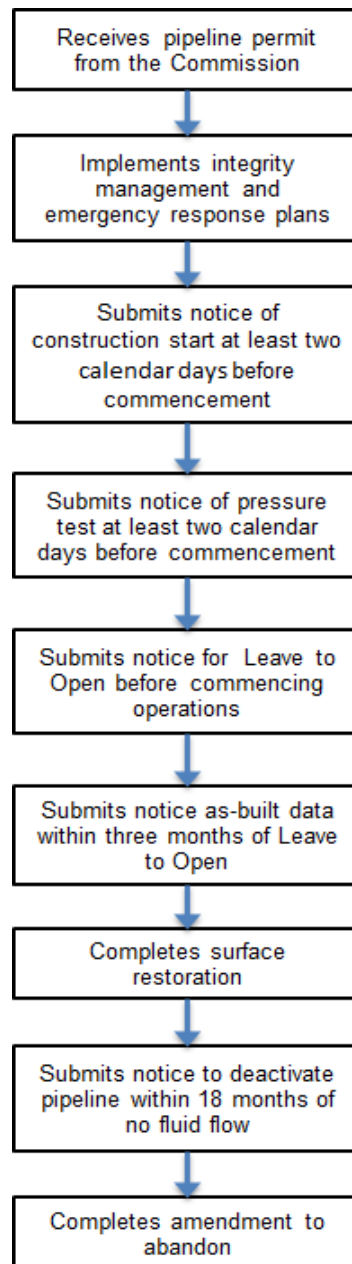


Fig. 3.1. An overview of the pipeline permit pre-construction; construction and operation activities and decommissioning of a pipeline.

4 KERMIT Overview

KERMIT is the Commission’s Knowledge, Enterprise, Resource, Management, Information and Technology data system. KERMIT enables electronic submission of applications, performance and compliance data submission, and electronic workflow management.

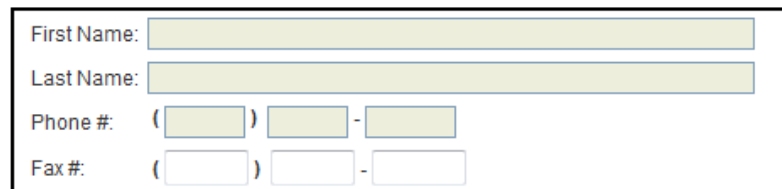
For additional information, the applicant or permit holder should refer to the [Kermit Application page](#) on the Commission website. This page provides links to frequently asked questions about KERMIT, an external overview document which illustrates how to navigate within KERMIT, and a company administration document which illustrates how to manage KERMIT accounts.

KERMIT Functions

The information requested in Conditional fields are not required in every instance, but must be answered if the conditions of the project indicate it.

Fields

Most mandatory fields display a shaded background. As project specific information is entered, some fields that are conditional may become mandatory and appear under finalize tab as an outstanding issue.



The screenshot shows a form with four rows of input fields. The first two rows, 'First Name:' and 'Last Name:', have single wide text boxes with a light yellow shaded background. The third row, 'Phone #:', has three input boxes: a small box for the area code in parentheses, a medium box for the main number, and a small box for the extension, all with a light yellow shaded background. The fourth row, 'Fax #:', has the same three input boxes as the phone number, also with a light yellow shaded background.

Fig. 4.1. Shaded mandatory fields in KERMIT

Date

All editable date fields have a calendar button which opens an active calendar. Select a date, or enter it manually in the MMM/DD/YYYY format.

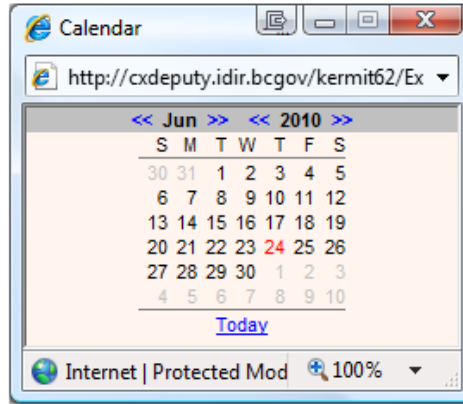




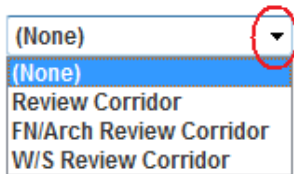
Fig. 4.2. Calendar window

Buttons and Menus

The save button  updates the application. This allows the user to enter information, save it and return later to edit or complete the application. Failing to save may result in lost changes or data.

The find button  opens a pop-up window used to search for a detail.

Dropdown menus contain a list of pre-set values that the user can choose from. Click on the down arrow to see the list, and select.



Search

The search function in KERMIT provides a way to link an application, notice or activity to an existing site or project. Step one of the search function is the same for applications and Notices of Intent. Applicants or permit holders may search for a specific project by entering information in any of the open search fields. The more specific the information used to search with is the more specific the search result will be.

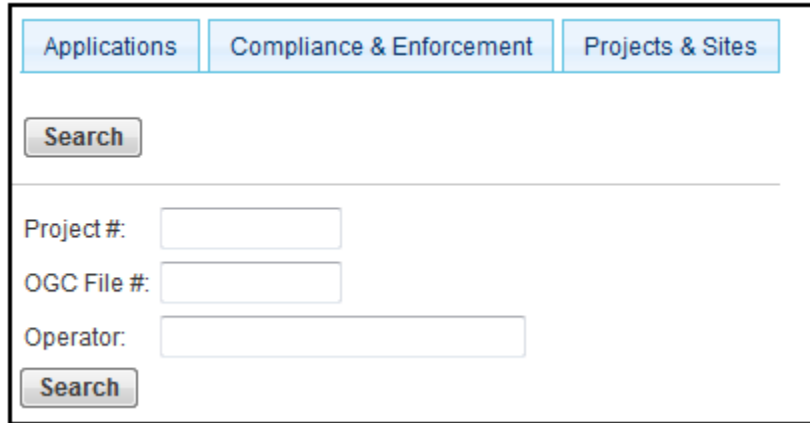


Fig. 4.3. KERMIT search fields.

Attachments Tab

The attachments tab allows users to upload documents and relate them to the job. To attach a document:

- 1) Choose the document type from the dropdown menu.
- 2) Click the upload button.
- 3) Type the name and extension of the file, or click the browse button to open a search window to search for a document.
- 4) Click the upload button again to upload the document.
- 5) Fill in the file reference, author name and author's email address
- 6) Click the save button to finalize the attachment.

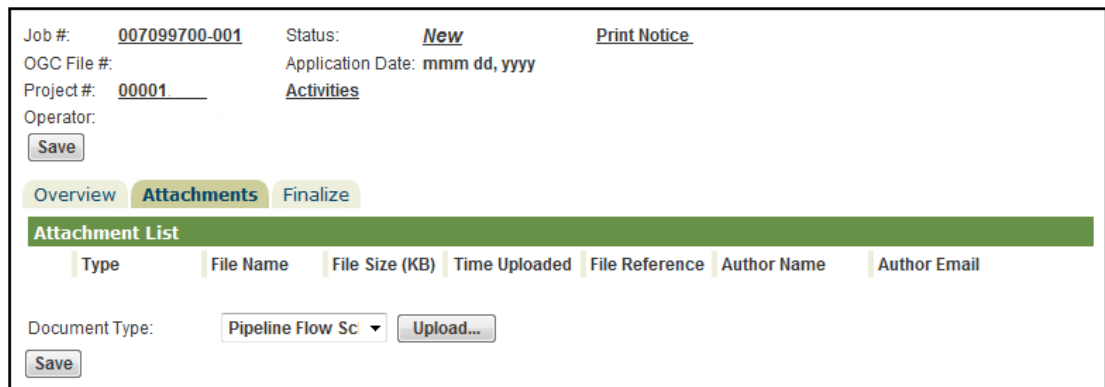


Fig. 4.4. Pipeline attachments page

Once the document is uploaded, KERMIT will show the file type, name, reference and size. It will also indicate the time the file was uploaded, and the author's name and email.

Finalize Tab

KERMIT identifies any outstanding issues associated with the application. Once all outstanding issues are corrected, the application can be finalized.

If First Nations packages are required as part of the submission, the Commission will not review the application in KERMIT until the hard copy First Nation packages are submitted and applicable fees are received by the Commission.

KERMIT Header

At the top of pipeline operation submissions in KERMIT is the header. The header displays:

>> Pipeline Permit			
Job #:	007	Status:	<u>New</u>
OGC File #:	9	Application Type:	Pipeline (New)
Proponent:		Application Date:	mmm dd, yyyy
		Complexity:	Non-Routine
		Activity Type:	(None)
		Submission #:	0
		Revision #:	0
		Approval Date:	mmm dd, yyyy
			Print Pipeline Permit

Fig. 4.5. KERMIT application header on pipeline application page.

Confirm that the Contact Name, Address, and E-mail are all current prior submitting any application. Outdated contact information may delay the permitting process

Job # The job number is used to identify a specific pipeline or facility. A unique job number will be created for each submission associated with the project. The user can click on the link to navigate to that job.

OGC File # The OGC file number is a seven digit number used to identify related surface rights applications. For example, 9700000.

Proponent The proponent is the company that holds or is applying for a pipeline permit.

Status Status displays what stage the job is in.

Application Type Application type displays what type of permit is being applied for.

Application Date Application date displays the date the application is officially submitted.

Complexity Complexity displays whether the application is classified as Routine or Non-Routine.

Activity Type Activity type displays

- Submission #** Submission number displays the number of times an application has been returned for review.
- Revision #** Revision number shows how many revisions have been made to the permit application.
- Print Pipeline Permit** Print Pipeline Permit is a hyperlink that allows the applicant to view and print a hard copy of the application submission.

5 Pre-Construction

For information on the requirements for integrity management and damage prevention programs, see Section 11.

The pre-construction section of this manual outlines requirements that must be met prior to the commencement of pipeline construction. This includes, Emergency Response Plans and the Notice of Construction Start and approval from other jurisdictions.

To help distinguish between upstream and downstream activities to follow, a brief definition is provided.

Defining Upstream and Downstream Activities

The Commission's operational requirements differ depending on pipeline categorization; upstream or downstream. This section provides definitions to distinguish between the two categories.

Upstream Activity

The majority of Commission regulated pipelines are categorized as upstream activities. Upstream activities involve the recovery, production and gathering of petroleum and natural gas.

Upstream activities require metering to track production for royalty purposes.

Downstream Activity

Downstream activities refer to selling and distribution of natural gas and the refining of petroleum. Downstream activities do not require metering for royalty purpose, as metering occurred as part of the product gathering process.

Piping used to transmit natural gas at less than 700 kPa to consumers by a gas utility is not regulated by the Commission. Please contact [BC Utilities Commission](#) for more information on registration of the gas utility pipelines.

Approval from other Jurisdictions

The Commission may authorize a permit holder to construct a pipeline across, along, over or under any highway, road, public place, railway, underground communication or powerline, or another pipeline.

Despite this permission, the permit holder still may require authorization for the use or occupation of land from the affected jurisdiction. Applicable legislation should be consulted.

Implement Emergency Response Plan

An Emergency Response Plan (ERP) must be prepared updated, submitted and implemented before any pipeline is open for service.

Pipelines with a hydrogen sulphide concentration of 10 moles per kilomole or greater (greater than or equal to one per cent) or have surface development in the Emergency Planning Zone (EPZ), require a site specific Emergency Response Plan respecting the Emergency Planning Zone, to be submitted or updated to the Commission before operation begins (in accordance with Section 8 of the PLNGFR).

Pipelines with a hydrogen sulphide concentration of less than 10 moles per kilomole (less than one per cent) and no surface development in the Emergency Planning Zone will require at a minimum, an up to date corporate ERP.

The ERP must also be revised for any applicable pipeline permit amendments (for example, Change of Service).

For more information on Emergency Response Plans and Emergency Planning Zones, refer to the Commission's [Emergency Response Plan Requirements](#) document.

Notice of Construction Start

Kermit will not accept submissions for subsequent steps until the previous step has been completed. i.e. a NCS must be completed prior to a NPT submission.

Every Notice of Construction Start (NCS) must:

Be submitted prior to commencement of clearing land and/or the set-up of equipment on location, and *cannot* be used for multiple projects.

Be submitted two (2) days prior to the construction start of the project/segment(s) for both downstream and upstream activity per Section 4 (1) (a) of the PLNGFR

Quote a project number and include all segments being constructed. Do not include segments which are not being constructed at this time.

A Notice of Construction Start is submitted through the Commission's KERMIT database. The instructions which follow detail how to complete and submit this notice.

Go to Notice of Construction Start

- 1) From the Applications page, go to the Activities group.
- 2) Select Notice of Construction Start.
- 3) Select NCS (Upstream or Downstream) for project.
- 4) [Search](#) for the project, OGC file number or operator.
- 5) Select new NCS for the associated project or OGC file number to open the Notice of Construction Start page.

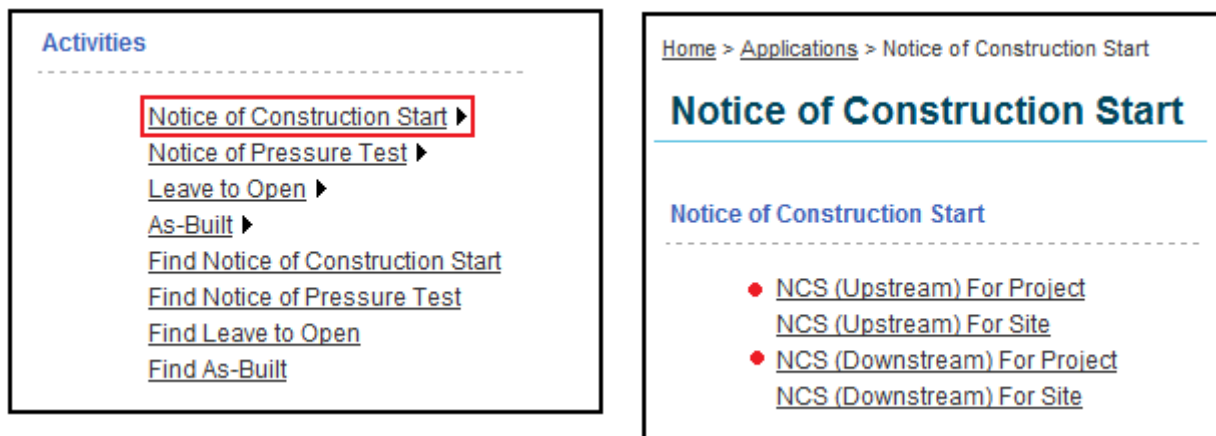


Fig. 5.1. Open a Notice of Construction Start

Notice of Construction Start (NCS) Page

The Notice of Construction Start for the project has been opened, and a job number has been generated. The page contains categorized tabs where information is to be entered. The tab categories are overview, attachments and finalize. In this section the overview tab is covered in detail. The attachments and finalize tabs which are general to all pipeline operation submissions are covered in the KERMIT [overview](#) section of this manual.

The screenshot shows a web application interface for opening a Notice of Construction Start (NCS). At the top, there are three tabs: 'Applications', 'Compliance & Enforcement', and 'Projects & Sites'. Below the tabs is the title 'Notice of Construction Start (Upstream)'. The main form area contains the following fields and controls:

- Job #: 007099700-001
- Status: **New**
- Print Notice of Construction (link)
- OGC File #: [empty]
- Application Date: mmm dd, yyyy
- Project #: 00001
- Activities (link)
- Operator: [empty]
- Save (button)

Below these fields are three tabs: 'Overview' (selected), 'Attachments', and 'Finalize'. The 'Overview' tab is active and contains the following sections:

- General Application Info**
 - Application Source: Online
 - Proposed Start Date: mmm dd, yyyy (with a calendar icon)
 - Activity Description: [empty text area]
- Operator**
 - Company: [empty] Contact: [empty] Find... (button)
 - or provide contact information in the fields below...
 - First Name: [empty]
 - Last Name: [empty]
 - Phone #: ([empty]) [empty] - [empty]
 - Fax #: ([empty]) [empty] - [empty]
 - Email: [empty]
- Agent (Optional)**
 - Company: [empty] Find... (button) Contact: [empty] Find... (button)

At the bottom of the form, there is a checkbox for 'Agent Agreement' and a statement: 'I am authorized to submit this request on behalf of the company shown above.'

Fig. 5.2. Open a Notice of Construction Start

Overview Tab

The overview tab identifies permit holder and land/referral agent information, as well as project specific details. For most pipeline operation submissions, the information fields are the same from 'general application info' to 'field representative'. The pipeline activity section houses information fields that are specific to the submission.

General Application Info

This section shows the source of the application. Enter the proposed construction start date and in the Activity Description box enter a summary of the activity which includes the location of where the pipeline construction will commence.

Operator

The Operator section captures permit holder information. Company name and information should appear automatically. If the company name does not appear, or the address is incorrect, the permit holder must contact the Commission's Corporate Land Management Unit to update the information prior to application/notice submission.

If a company contact has previously been entered into the Commission database, use the find button to search for the contact. If no contact is found, enter the information manually.

The permit holder that holds the surface tenure is accountable for the accuracy of the application content entered into KERMIT. If the permit holder chooses to use outside agents or consultants, the permit holder remains accountable for the accuracy of the application.

Agent (Optional)

The agent section must be completed if the submitter of the application is an agent of the proponent.

If an agent submits on behalf of the permit holder, a letter of authorization from the permit holder must be on file at the Commission prior to application submission.

Company name and information should appear automatically. If the company name does not appear, or the address is incorrect, the permit holder must contact the Commission's Corporate Land Management Unit to update the information prior to application/notice submission.

If a company contact has previously been entered into the Commission database, use the find button to search for the contact. If no contact is found, enter the information manually. Indicate in the check box if there is an agent agreement in place.

<p>I am authorized to submit this request on behalf of the company shown above.</p> <p><input checked="" type="checkbox"/> Agent Agreement</p>

Field Representative

Enter the full name and phone number of the Field Representative for the project.

Pipeline Activity

Click the segment number to open the project detail window. Here information in the details, activity, location, wells, and farm taps tabs can be viewed.

Indicate if the pipeline is surface or buried in the dropdown menu.

For each affected pipeline segment, check the include checkbox to ensure that the associated information will be included in the application. KERMIT will not accept the submission if the details are not included.

If the activity requires a change; click on the segment number to open the pipeline detail window and include the updated information. The system will automatically check the include checkbox to include the new details.

Pipeline Activity				
Segment #	Location	Buried or Surface	Activity	Include?
002	From: DLS: 05-33-077-19 To: DLS: 05-33-077-19	(None)	Construction Pipeline	<input checked="" type="checkbox"/>
SRA/NOI #:				
FID #:	Valve:	DIV #:		

Fig. 5.3 Select a Segment

Riser Locations

If there are risers associated with the pipeline, these riser locations need to be entered by NTS or DLS co-ordinates for location confirmation. These locations must be filled out and indicated on the design schematics as well as in the segment specification tab as shown below.

Pipeline Details	
CSA Class Location:	Class 1
Line Type:	(None)
Product:	Natural Gas
H2S (mol %):	0
CO2 (mol %):	4.50
Pipe Length (m):	75.0
Pipe O.D. (mm):	114.3
Wall Thickness (mm):	
Material Standard:	
Grade:	(None)
Grade Description:	
Category:	(None)
Category Description:	
Design Pressure (kPa):	
Design Temp (C):	
MOP (kPa):	
Internal Coating:	(None)
Internal Coating Desc:	
External Coating:	(None)
External Coating Desc:	
Cover Depth (m):	
Flange Material Standard:	
Flange ANSI Rating:	
Valve Material Standard:	
Valve ANSI Rating:	
Fitting Material Standard:	
Risers	
Riser #	RIN
Legal Description	UTM
<input type="button" value="New Riser"/>	

Fig. 5.4 Select the New Riser button and enter in all data

If there is a riser associated with the pipeline, then it is applied for as part of the pipeline or is an amendment to the pipeline, even if it exceeds the width of the existing ROW. On applications, this area should be included in the pipeline application. If it is an amendment, then it would be an amendment with new land required. Please see the example below for illustration.

Note: If the riser is for the purpose of a pipeline, it is considered to be part of the pipeline. If the riser includes additional equipment from the facility equipment list, then it would be required to be applied for as a facility. For example, the addition of flare stacks and flare piping would classify it as a facility.

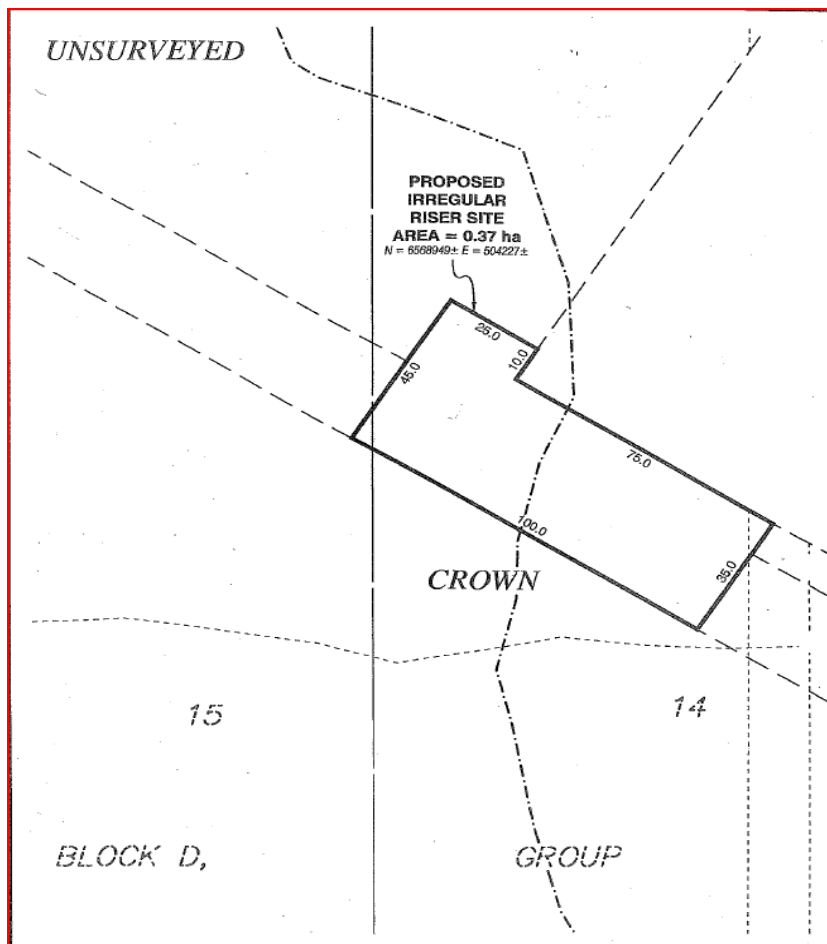


Fig. 5.5 Construction Plan Map

6 During Construction

Notice of Pressure Test

The Notice of Pressure Test provides notification to the Commission two (2) days prior to the start of a pressure test in accordance with Section 4 (1) (b) of the PLNGFR. The permit holder must notify the Commission of the start date, to allow a Commission inspector to oversee pipeline pressure testing, if required.

There are two types of Notice of Pressure Test: Shop Test and Field Test. Both Shop Tests and Field Tests must be entered in to KERMIT.

The steps for entering a Shop Test and a Field Test in KERMIT are identical.

Shop Test: Pressure tests that are conducted in the shop, usually used during repairs or modifications of short segments.

Field Test: Pressure tests that are conducted on site during construction or maintenance activities.

Go to Pressure Test

The steps for entering a shop test or a field test in KERMIT are identical. To illustrate the steps, Shop Test (upstream) for project has been selected as an example.

- 1) Select Notice of Pressure Test.
- 2) Select NPT shop test for project.
- 3) Search the project or OGC file number.
- 4) Select New Shop Pressure Test for the associated project to open the pressure test page.

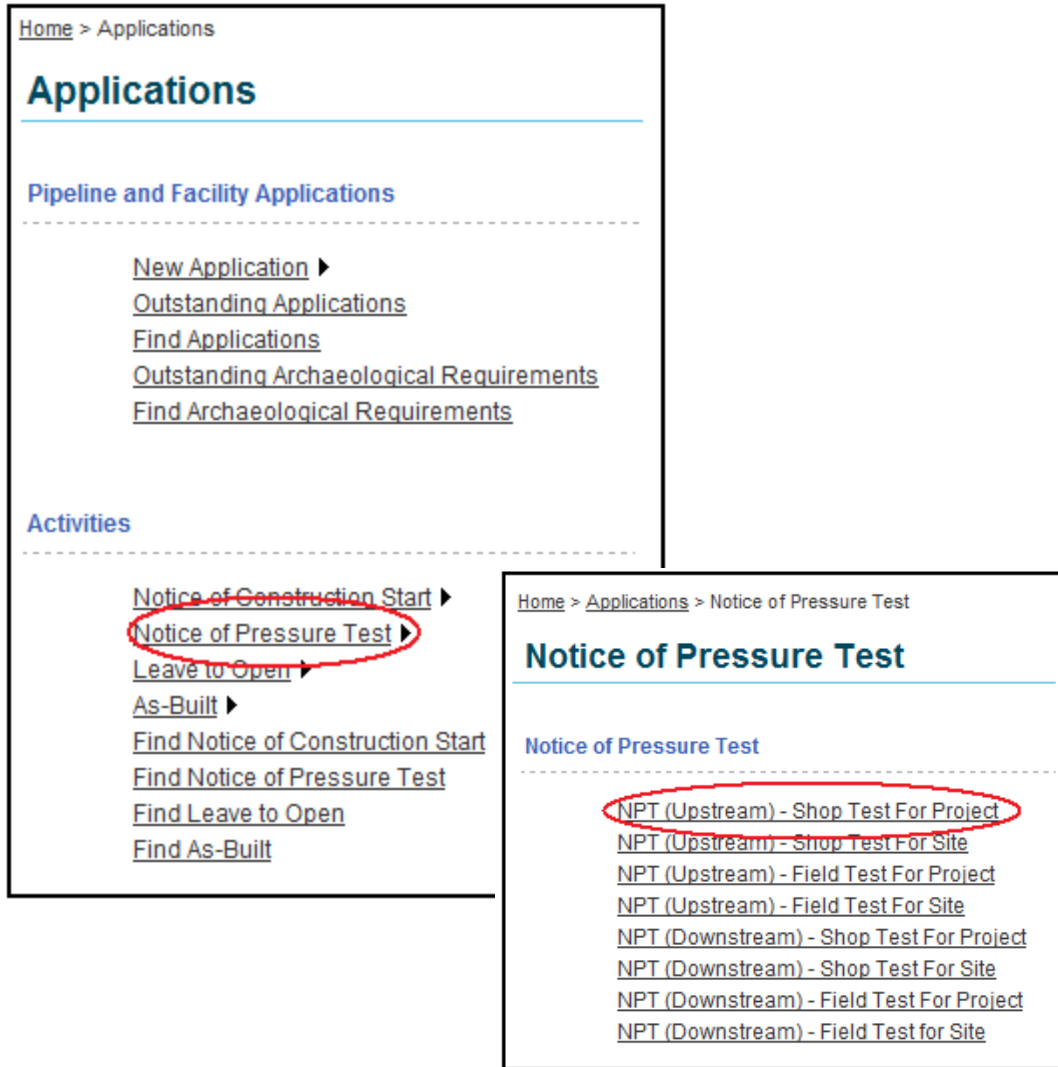


Fig. 6.1. Open a Notice of Pressure Test

Notice of Pressure Test (Upstream) – Shop Test Page

Once the new Notice of Pressure Test for the project has been opened, a job number is generated. Here, information specific to the notice appears, including the project number.

Below the project information are categorized tabs where the permit holder adds information related to the notice. The tab categories are overview, attachments and finalize.

The attachments and finalize tabs which are general to all pipeline operation submissions are covered in the KERMIT [overview](#) section of this manual.

Agent (Optional)

Company: Contact:

I am authorized to submit this request on behalf of the company shown above.

Agent Agreement

Shop Representative

Name:

Address:

Pipeline Activity

Segment #	Location	Test Medium	Stress at Test Pressure (kPa)	Activity	NCS Date	Include?
001	From: DLS: 04-15-080-19 To: DLS: 13-19-080-19	(None) ▼	<input type="text"/>	Change of Service		<input type="checkbox"/>
APP/NOI#:		Activity Description:				
FID #:		Valve:		DIV #:		

Notes and Conditions

Further Pressure Testing or Pressure Welding Required? No Yes

Note:

1. All pressure testing is to be conducted in compliance with the B.C. Pipeline Act, B.C. Pipeline Regulations and the latest edition of CSA Z662.
2. Test procedure shall be on the site where testing is being conducted.
3. This Notice of Pressure Test form cannot be used for two separate projects.

Fig. 6.2. Notice of Pressure Test Page

Overview Tab

The Notice of Pressure Test [overview tab](#), general application info, operator and agent sections are all entered the same way as in a Notice of Construction Start. Particular to the Notice of Pressure Test are the shop representative, pipeline activity and notes and conditions sections.

Shop Representative

Enter the full name and contact information of the shop representative project.

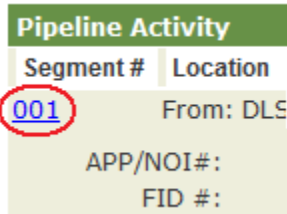
The permit holder that holds the surface tenure is accountable for the accuracy of the application content entered into KERMIT. If the permit holder chooses to use outside agents or consultants, the permit holder remains accountable for the accuracy of the application.

Pipeline Activity

Under pipeline activity, the permit holder is required to enter the following information for each section:

- Test medium. From the drop-down menu select either liquid (hydro) or gaseous (non-hydrocarbon gases)
- Stress at Test Pressure (kPa)
- Include; the box must be checked in order to finalize the submission

Click the segment number to open the project detail window. Here information in the details, activity, location, wells, and farm taps tabs can be viewed.



Project Detail - 001 (00001)

Project #:	00001	Segment #:	001	Status:	Active
OGC File #:		Section 10 Field:		Engineer Project:	
From Location: DLS:		To Location: DLS:			
Operator:					
FID #:	None	Valve:	None	Division #:	None

Details Activity Location Wells Farm Taps

CSA Class Location:	(None)	MOP Stress % of SMYS:	
Line Type:	(None)	Test Pressure (kPa):	
Product:	Sour Natural Gas	Stress at Test Pressure (kPa):	
H2S (mol %):	4.00	Type of Joint:	(None)
Partial Pressure (kPa):		Internal Coating:	(None)
NDT (%):		External Coating:	(None)
CO2 (mol %):	2.00	Cover Depth (m):	
Length (m):	5760.0	Flange Material Standard:	(None)
Pipe O.D. (mm):	219.1	Flange ANSI Rating:	
Wall Thickness (mm):		Valve Material Standard:	
Material Standard:		Valve ANSI Rating:	
Grade:	(None)	Fitting Material Standard:	(None)
Category:	I	Cathodic Protection:	(None)
Design Pressure (kPa):		Cathodic Type:	(None)
Design Temp (C):		Internal Corrosion Program in place:	(None)
MOP (kPa):	0		

Fig. 6.3. Project detail window showing tabs

If pneumatic testing is planned, it must be approved with the application or amendment. If this was not done, an e-mail explaining why pneumatic testing is required, along with calculations and the full pneumatic test procedure specific to the segment and application or amendment must be sent to and approved by the Commission’s Pipeline Engineer prior to a Notice of Pressure Test.

Notes and Conditions

The permit holder must indicate Yes or No, if further pressure testing or pressure welding is required? If a shop test was completed, enter yes, field testing will be completed at a later date.

A Leave to Open must be submitted prior to commissioning or recommencing operations, whether or not pressure testing was required.

(See [Section 7](#) for details on submitting a Leave to Open in KERMIT).

7 Commencing Operations

To avoid delays at the leave to open stage, *As-Built* plans are not required until three (3) months after the LTO. All NDI, including tie-in welds, must be completed and the ERP filed prior to submitting the LTO. The operation of the pipeline may commence as soon as the LTO is submitted in KERMIT

A pipeline permit holder must notify the Commission of its intention before beginning operation of a pipeline, in accordance with Section 4(1) (c) of the PLNGFR. This is done by submitting a notice of Leave to Open (LTO). Notice of Leave to Open must be submitted prior to commissioning any pipeline project or segment.

By submitting a notice of Leave to Open, the permit holder affirms that the pipeline has been constructed to CSA standards and that all technical information contained in the notice is accurate and complete.

Leave to Open must be electronically designated by the Professional Engineer (P. Eng.), responsible for the construction of the pipeline and who is a member in good standing of the Association of Professional Engineers of the Province of British Columbia.

Notice of Leave to Open

Go to Notice of Leave to Open

- 1) Select Leave to Open for project.
- 2) Select LTO (upstream/downstream) for project.
- 3) Search for the project or OGC file number
- 4) Select new LTO for the associated project or OGC file number to open the leave to open page.

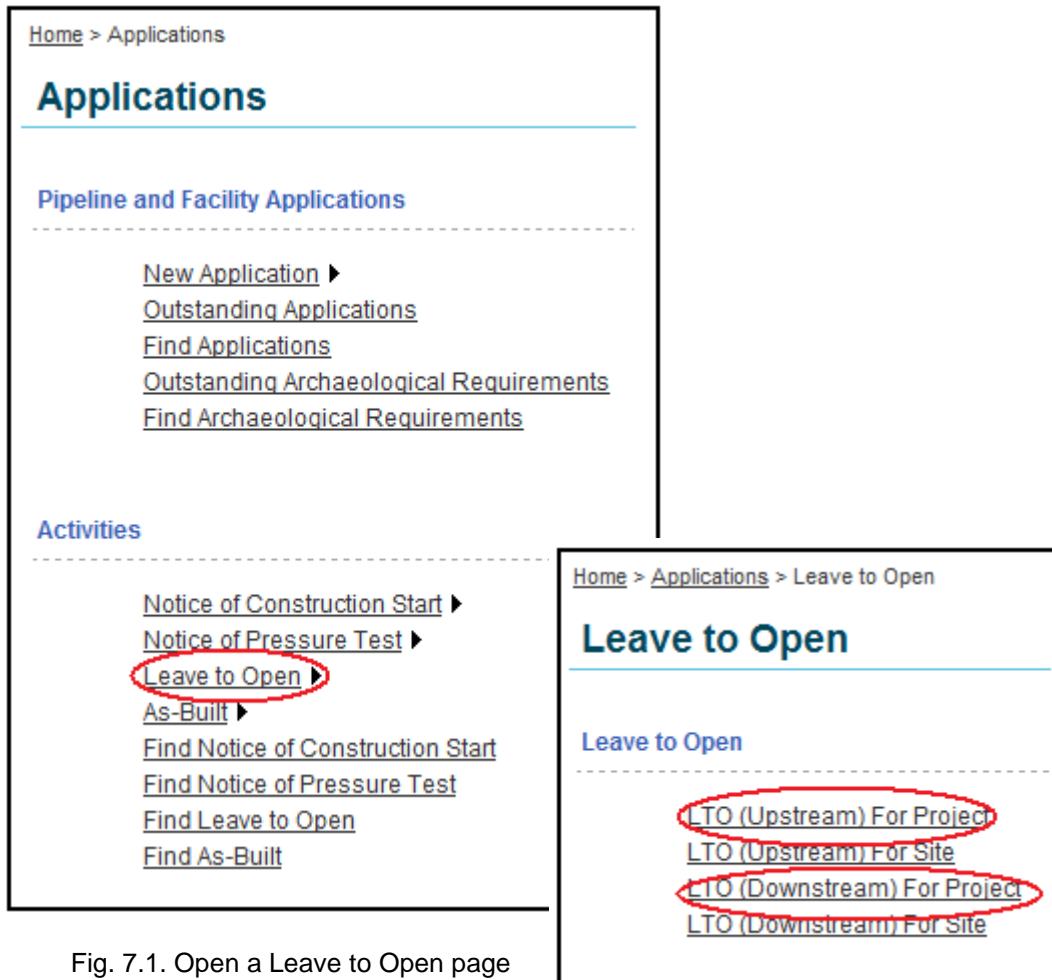


Fig. 7.1. Open a Leave to Open page

Leave to Open Page

Once the new notice of Leave to Open for the project has been opened, a job number will be generated and information specific to the notice also appears, including the project number. Below the project information header are categorized tabs where the permit holder adds information related to the notice. The tab categories are overview, attachments and finalize tabs are available.

Overview Tab

The overview tab identifies permit holder and land/referral agent information, as well as project specific details.

In the Leave to Open section the [overview tab](#), general application info and operator sections are all filled in the same way as for a Notice of Construction Start.

Particular to the Leave to Open are the engineering firm, pipeline activity and information and conditions sections.

The permit holder of the surface tenure is accountable for the accuracy of the application content entered into KERMIT. If the permit holder chooses to use outside agents or consultants, the permit holder remains accountable for the accuracy of the application.

Engineering Firm

Company and engineer information are entered by selecting the find button to the right of both fields.

Enter the Engineer number, and after reading the declaration, the Engineer checks the agreement box to indicate that they agree to the information stated.

The screenshot shows a web form titled "Engineering Firm". It contains the following elements:

- A "Company:" text input field with a "Find..." button to its right.
- An "Engineer:" text input field with a "Find..." button to its right.
- An email address: "Email: OGCKermit.Notices@gov.bc.ca".
- An "Engineer #:" text input field.
- A declaration text: "I hereby confirm that this project has been designed and constructed as per all governing B.C. Regulations & Standards and that I am a Professional Engineer in good standing of the Association of Professional Engineers of the Province of British Columbia."
- A checkbox labeled "* Engineer Agreement".

Fig. 7.2. Engineering information fields

Pipeline Activity

Clicking the blue segment number opens the segment detail page. As the information for each segment is saved, the check box under pipeline activity will show that it has been accepted, and marked as included.

Pipeline Activity							
Segment #	Location	Pipe Length (m)	Product	Activity	NCS Date	NPT Date	Include?
001	From: DLS: 03- To: DLS: 04-	7172.0	Natural Gas	Construction Pipeline	Mar 12, 2010	Apr 28, 2010	<input checked="" type="checkbox"/>
APP/NOI #: _____ Activity Description: _____ FID #: _____ Valve: _____ DIV #: _____							
003	From: DLS: To: DLS:	7172.0	Salt Water	Construction Pipeline	Mar 12, 2010	Apr 28, 2010	<input type="checkbox"/>
APP/NOI #: _____ Activity Description: _____ FID #: _____ Valve: _____ DIV #: _____							

Fig. 7.3. Pipeline activity fields

Information and Conditions

An ERP must be submitted prior to Leave to Open.

Answer all of the questions and ensure the Emergency Response Plan (ERP) has been submitted or updated. All As-Built drawings, specs, & data must be submitted within three (3) months of completion of construction in accordance with Section 4(2) of the PLNGFR.

Information and Conditions	
Cathodic Protection will be in service for above projects:	(None) <input type="text"/>
Internal corrosion program will be in effect:	(None) <input type="text"/> WITHIN <input type="text"/> DAYS OF COMMISSIONING
Have required safety valves been operationally tested and proven serviceable?	<input type="radio"/> Yes <input checked="" type="radio"/> No
If product is "≥"1% H2S, new or revised ERP has been submitted to the OGC?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A(<1% H2S)
Has the BC 21 linkage been approved? (required prior to commissioning pipelines)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
All As-Built drawings, specifications, and data will be submitted within 90 days of opening for service.	

Fig. 7.4. Information and Conditions – Conditional questions

Conditional Questions

Cathodic Protection will be in service for above projects:
Cathodic protection controls pipeline corrosion, and is required within one year of commissioning the pipeline in accordance with CSA Z622, 9.5.1.

Internal corrosion program will be in effect:

- Immediately after the commission of a pipeline
- After Commission
- Not applicable.

An internal corrosion program is not required when composite pipe, instrumentation air or fuel gas is used. Proven dry sweet natural gas also does not require an internal corrosion program. Where this is the case, choose N/A.

Have required safety valves been operationally tested and proven serviceable?

All safety devices must be proven to be operable prior to opening the pipeline for service.

If product is greater than or equal to 1% H₂S or has surface development in the EPZ, has a new or revised site specific ERP been submitted to the Commission.

In accordance with Section 8 of the PLNGFR, pipelines with a hydrogen sulphide concentration of 10 moles per kilomole or greater (greater than or equal to 1 percent) and/or have surface development in the EPZ, require a site specific Emergency Response Plan respecting the Emergency Planning Z one to be submitted or updated to the Commission before beginning operation.

Has the Schedule 1 linkage been approved? (Required prior to commissioning pipelines.)

A Schedule 1 (previously BC-21), must be approved by the Commission before operations are linked.

Attachments Tab

The [attachments tab](#) allows permit holders to upload the required documentation. This includes:

- Pressure Test Charts
- Logs

Finalize Tab

The [finalize tab](#) shows a list of any outstanding Issues related to the application. KERMIT will not finalize an application that has outstanding actions to be completed.

8 Post-Construction

This section covers Commission requirements during the post-construction phase of a project. This includes:

- Post-Construction Plan
- Pipeline As-Cleared Plan Form
- Issuance of Licence of Occupation
- Renewed Cutting Permit
- As-Built requirements

Post-Construction Plan Submission

To ensure the Commission has the most current digital and spatial information of actual area cleared for oil and gas activity, Post Construction Plans must be submitted within 60 days of completed construction. This applies equally to projects located on Crown and Private land. There is no need to submit partial disturbance if more construction will be done, submit only when work is complete.

The submission must include an uploaded ePASS shape file, and one hard copy of a Post-construction Map. If the submission is a pipeline or facility the Post-Construction Map must also be uploaded into Kermit.

The Post Construction Map and ePASS shape file must indicate exactly where construction has occurred and should be accurate to +/- 2 meters.

Unconstructed temporary or permanent ancillary features on Post Construction plans will be cancelled. Any land tenures will be adjusted/cancelled accordingly.

Post-Construction Map

Post Construction Maps must contain the following information:

A unique ePASS number – the ePASS cannot have been used on previous submissions

OGC file number

Survey Company

Date

Drawing Reference Number

Location and/or well name

Title – Post Construction Plan

Legend – including all types of disturbance, area (ha) of original application, area (ha) built, permanent or temporary

disturbance, **hectares differentiated according to Crown and private land**

Grid (PNG)

Shape(s) of all disturbances

North Arrow

Company contact email address

See example of Post Construction Plan below.

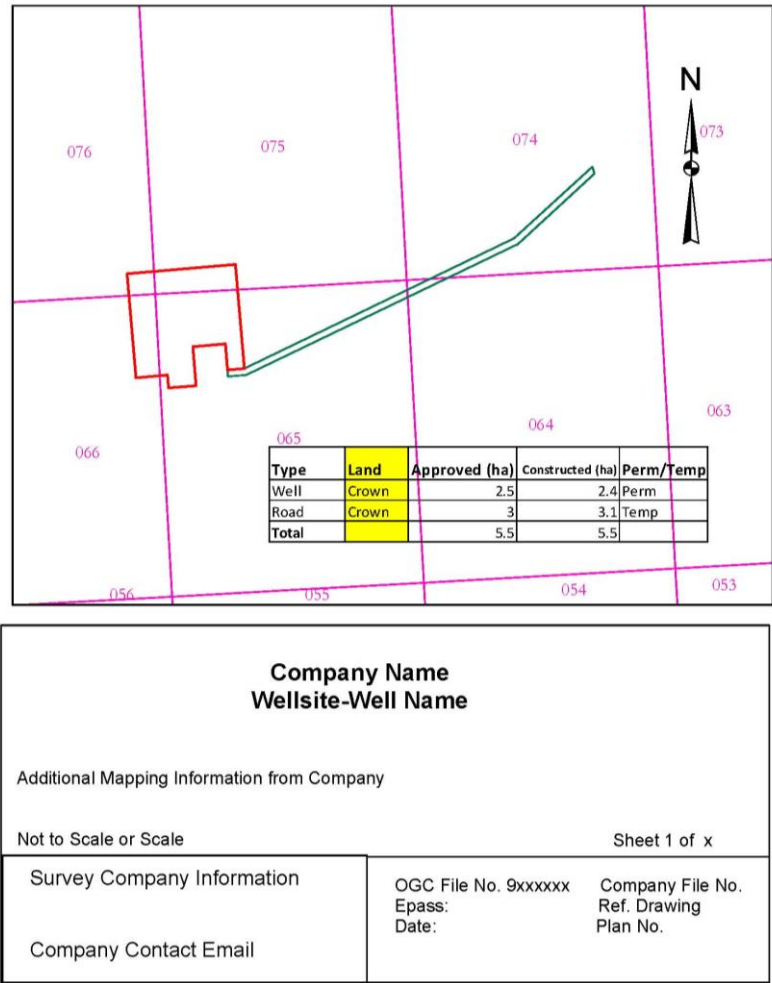


Fig. 8.1 Post Construction Plan

ePASS

The activity type in ePASS must be set to “Final Plan/Post-Construction”.

Any temporary (surface disturbance only) ancillary features must be indicated as clearings. Examples of temporary clearings include:

- Camp sites and decking sites
- Visibility clearings
- Road Flare-outs
- Brush storage areas
- Corner cut-offs (which are often part of a pipeline project or road construction project)

The permitted value in ePASS for a clearing is CLEAR as indicated in the ePASS submission Standards document.

As-Cleared Plan Form

As-Cleared refers to the forestry area that was cleared to construct the works. As-Built refers to specific piping (engineering) details.

An As-Cleared Plan Form is required ONLY where a Cutting Permit was issued for an activity, and reflects the actual area used in the construction of the pipeline (including ancillary disturbances). This includes all amendments that result in a change to the total area used.

As a condition of the permit holder's MLTC, pipeline permit holders are required within 60 days of clearing to submit an As-Cleared plan to the address stated on the form. The information will then be forwarded to the Ministry of Forests and Range for stumpage billing purposes.

The following information shows what is required on the As-Cleared plan form.

Block A – Administration

- Commission File No.** Commission surface file number generated by KERMIT. For example 9700000.
- Permit Holder Name** Enter the company name as registered with the BC Corporate Registry and holds the permit.
- Contact Information** Enter the contact information of the representative. If the form is completed by a referral agent, referral company information is also required.

Block B – Forestry Information

- Disturbance Type** Indicate the type of activity associated with the disturbance.
- Forest District** British Columbia is divided by regions into forest districts. Indicate which district(s) the project is in.
- Permit Approval Date** Indicate the date the permit was approved by the Commission.
- Construction Completion Date** Indicate the date that clearing was completed. Use YYYY/MMM/DD format.
- MLTC No.** Master Licence to Cut number.
- Proposed** The total of proposed new Crown land area

New Crown Land disturbance (in hectares excluding woodlot areas, as indicated as part of the permit application process.

The total area of Crown land is the area shown on the construction plan including the pipeline area, any temporary workspaces, decking sites and others, whether or not the area was previously cleared or within an existing right-of-way.

As-Cleared New Crown Land The total As-Cleared new Crown land area disturbance (in hectares), is the total area of Crown land utilized minus any woodlot areas and any previously cleared areas where stumpage has been collected.

If the total As-Cleared area is the same as what was proposed, map attachments are not required. Hand sketches are not acceptable as map attachments.

Block C – Form Deliverables

As-Cleared Form Include two completed copies of the As-Cleared Form. The Commission will distribute the duplicate to the Ministry of Forests and Range for billing purposes.

As-Cleared Sketch Plan In accordance to Section 9.01 of the permit holder's MLTC, the permit holder must submit a map showing all disturbances that have occurred pursuant to the cutting permit, at a scale of 1:20,000 or 1:50,000. As-Cleareds must be submitted within 60 days of completing operations on a cutting permit.

If the total As-Cleared area is the same as what was proposed within the application, map attachments are not required. Hand sketches are not acceptable for the sketch plan.

Licence of Occupation

The Commission will issue a licence of occupation in accordance with Section 39 of the Land Act after one of the following:

- Post Construction Plan has been received and accepted, or
- All Leave to Open notices have been submitted for the pipeline project, or
- If the term of the pipeline permit expires and Notice of Construction, Pressure Test and/or Leave to Open notices have been received for some segments.

A Licence of Occupation conveys non-exclusive use for the purpose described and is not a registerable interest in the land. Government may authorize overlapping and layering of tenures. The Commission will prepare a Licence of Occupation for the right-of-way identified in the Construction Plan originally submitted with the permit application or in a subsequent Construction Plan received. The licence will be sent to the permit holder's surface land administrator in order to authorize occupation of the land. Any pipeline segments not constructed at this stage will be cancelled.

Permit holders have 60 days from the issuance of the Licence of Occupation to return one signed copy of the licence and the pipeline consideration fees. The duplicate licence of occupation is to be retained by the permit holder for their records.

Consideration Fees

A pipeline consideration is charged for the term of the licence based on the zonal rates for linear development (pipelines) outlined in the Ministry of Agriculture and Lands' [Crown Land Use Operational Policy: Utility Policy for Linear Development](#) (pipelines).

For the purposes of section 24 of the OGAA General Regulation, a pipeline is considered complete once the LTO has been submitted.

Term

The Licence of Occupation is intended as an interim tenure that is valid for three years, pending completion of legal survey requirements. The permit holder must complete the surveying and posting of the pipeline right-of-way in accordance with the rules made under Section 75 of the Land Surveyor's Act within 16 months of completing a pipeline (in accordance with Section 24 of OGAA).

Applications for surveying period extension can be made to the [BC Surveyor General](#).

Statutory Right-of-Way

If survey requirements are met, a Statutory Right-of-Way Tenure Document will be issued to replace the Licence of Occupation tenure.

A fee for the replacement of a disposition is payable for the issuance of the Statutory right-of-way tenure as outlined in the Land Act Fees Regulations. Statutory right-of-way tenures are issued for a nominal \$1.00 consideration when the legal survey requirements are met.

More information on the Statutory Right-of-Way process is found within the Commission's [Corporate Land Management Manual](#).

Renewing an Expired Cutting Permit

If timber removal on Crown land is required to construct a pipeline, a cutting permit will be issued as part of the pipeline permit. The pipeline permit will state the term of the cutting permit to remove Crown timber.

To renew an expired cutting permit, a completed [Cutting Permit Renewal Form](#) must be submitted to the Commission.

As-Built Requirements

As-Built specifications, data and drawings provide the Commission with information about the technical aspects of the constructed pipeline.

During construction should engineering changes, other than those noted below, occur to the pipeline that deviate from the pipeline permit, they must be captured through an amendment prior to construction of any portion of the pipeline affected, as required by the Oil and Gas Activities Act, Section 21. Changes that require a No New Land Amendment are illustrated in Section 10 of this manual. Changes which require new land, or which are major amendments (including the addition of new pipelines or segments) should be completed as outlined in the Pipeline Permit Application Manual.

Changes that may be accepted within an As-Built but must be identified are:

- Changes of length that are less than 50m, provided that no new land is required, and end points are as applied for.

If information is required that cannot be entered in KERMIT, it must be noted in the cover letter, and the reason must be included.

- Changes to material standards provided they meet CSAZ662 standards.
- Change in CO₂ content
- Small changes in design temperature, provided that the temperature is within the coating limits.
- Aboveground changes in piping components such as adding/removing valves and fittings are acceptable provided that the scope of the pipeline change doesn't impact anything referenced in the permit and the materials are specified in the appurtenance designed.

Changes that require a No New Land Amendment are:

- Change to CSA class location.
- Increase in Maximum Operating Pressure.
- Cancel pipeline.
- Modify sub-surface pipe, including modifications to pipeline specifications.
- Repair/ replace (not in-kind).
- Installation of a mid-point riser.
- Change of service, including changes to H₂S content when above 0.3 Kpa partial pressure.
- Pipeline flow reversal.
- Abandon pipeline.
- Reactivate pipeline.
- Splitting segments.

Changes that require a Notice of Intent are:

- Reduce MOP
- Repair / Replace in Kind
- Add / Repair / Replace / Remove Farm tap

This section outlines the procedures for completing As-Built requirements in KERMIT.

Submissions

A pipeline permit holder must submit as built specifications, data and drawings of the pipeline to the Commission within three (3) months after pipeline construction completion, in accordance with Section 4 (2) of the PLNGFR.

As-Built specifications, data and drawings provide the Commission with information about the technical aspects of the constructed pipeline.

As-Built should include the following attachments:

- Index (optional)
- Legend (may be included within the P&ID package).

All As-Builts require original Process and Instrumentation Diagrams, Plot Plans and Flow Schematics and must be signed and sealed by the Professional Engineer and submitted with the As-Built form. "Typical" drawings are not acceptable.

- [P&ID](#) (see example)
 - Include schematics of all mid-point risers, with the exact location of the riser listed on the schematic.
 - Include the start and end points of each segment, properly labeled.
 - Must be signed and sealed by a professional engineer registered with APEGBC.
- Plot plan (optional)
- Flow schematic (optional)
- Tie-in Schematics of ESD valves.
- Tie-in to all pressure control devices must be shown
- System map showing isolation valve, rectifiers, and CP test site locations.

These submissions are reviewed for completeness and may be declined for the following reasons:

- Line specification details not complete.
- Engineer seal and signature missing.
- No legend indicating the symbols used.
- Missing attachments.
- Not all endpoints/appurtenances shown.
- Not all location shown.
- Labels incomplete or incorrect.
- Lines being As-Built are not clearly indicated and not apparent which lines are the ones to review.
- Clarification required (for example sour pig barrel that does not show release going to flare, but appears to go to atmosphere).
- Isolation valve, pressure control, or ESD valves missing from system map.
- As-Built does not match permitted application, with the exception of those changes indicated as acceptable as part of an As-Built above.

As-Built

- 1) Select As-Built from the activities menu.
- 2) Select As-Built for project.
- 3) Search the project or OGC file number.
- 4) Select new As-uilt for the associated project to open the As-Built page.

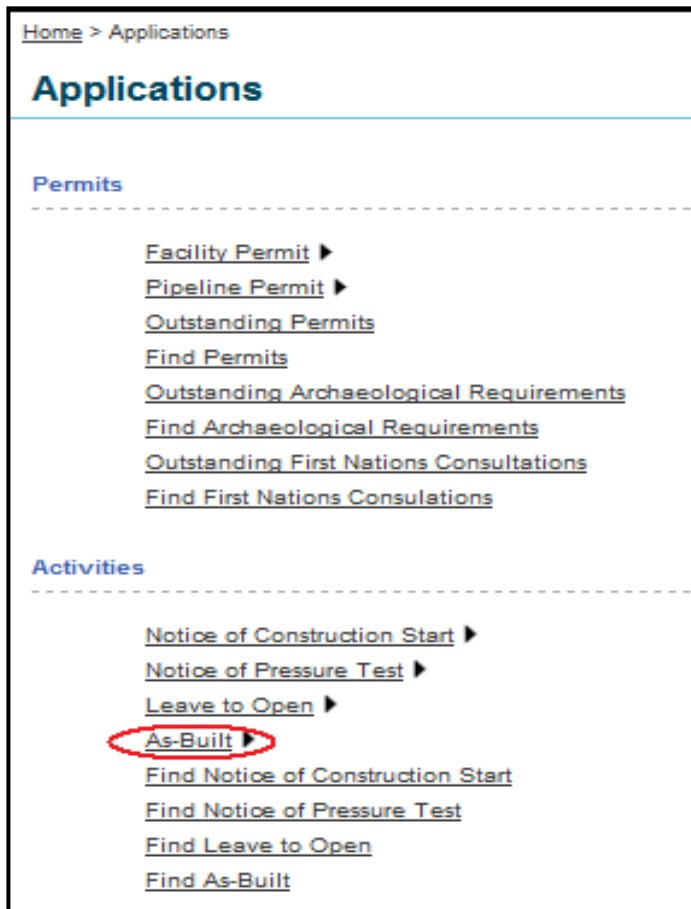


Fig. 8.1. Open As-Built page.

As-Built Page

Once the As-Built for the project has been opened, a job number is generated. Here, information specific to the As-Built also appears, including the project number.

Below the project information are categorized tabs where the applicant must add information related to the As-Built. The tab categories are overview, attachments and finalize.

The attachments and finalize tabs which are general to all pipeline operation submissions are covered in the [KERMIT overview](#) section of this manual.

The surface tenure holder is accountable for the accuracy of the application content entered into KERMIT. If the permit holder chooses to use outside agents or consultants, the permit holder remains accountable for the accuracy of the application.

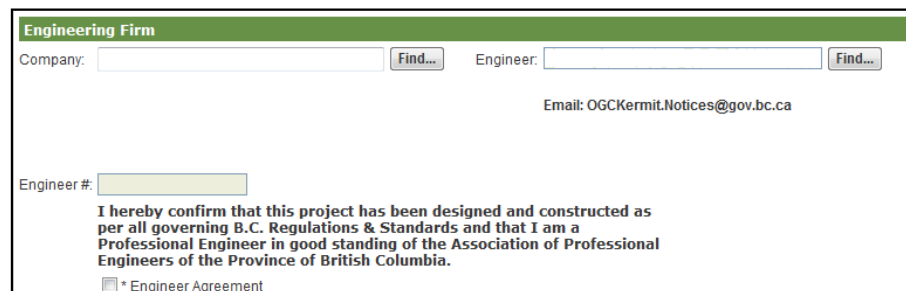
Overview Tab

The As-Built overview tab, general application info and operator sections are all filled in the same way as for a Notice of Construction Start. Particular to the As-Built is the pipeline activity section.

Engineering Firm

Company and engineer information can be entered by selecting the find button to the right of both fields.

Enter the Engineer number. After reading the declaration, the Engineer uses the check box to indicate agreement with the information stated.



The screenshot shows a web form titled "Engineering Firm". It contains the following elements:

- A "Company:" text input field followed by a "Find..." button.
- An "Engineer:" text input field followed by a "Find..." button.
- An email address: "Email: OGCKermit.Notices@gov.bc.ca".
- An "Engineer #:" text input field.
- A declaration text: "I hereby confirm that this project has been designed and constructed as per all governing B.C. Regulations & Standards and that I am a Professional Engineer in good standing of the Association of Professional Engineers of the Province of British Columbia."
- A checkbox labeled "* Engineer Agreement".

Fig. 8.2. Engineering information fields

Pipeline Activity

Information must be provided for each segment number that appears pipeline activity. Click on the blue segment number which appears for each segment of pipe included in the As-Built. This opens the As-Built Project Detail window.

The screenshot shows the 'As-Built Project Detail' window. At the top, it displays project information: Project # 00001, Segment # 001, Status Active, OGC File #, Section 10 Field: GROUND BIRCH, Engineer Project, From Location: DLS: - - -, To Location: DLS: - - -, and Operator. Below this is a 'Save' button and a tabbed interface with 'As-Built Activities', 'Details', 'Farm Tap', and 'Location' tabs. Under the 'As-Built Activities' tab, there are input fields for FID #, Division #, and Valve. Below that is a 'Pipeline Activity' section with a green header and a table. The table has columns for Activity, SRA/NOI #, Approval Date, NCS Date, Pressure Test Date, LTO Date, NOI Activity Description, and Include?. The first row shows 'Construction Pipeline' with dates Mar 6, 2002, Jun 26, 2002, Jul 4, 2002, Jul 6, 2002, and an 'Include?' checkbox. At the bottom are 'Save' and 'Cancel' buttons.

Activity	SRA/NOI #	Approval Date	NCS Date	Pressure Test Date	LTO Date	NOI Activity Description	Include?
Construction Pipeline		Mar 6, 2002	Jun 26, 2002	Jul 4, 2002	Jul 6, 2002		<input type="checkbox"/>

Fig. 8.3. As-Built project detail window

All As-Built require line specification information to be entered under the Details tab, shown in Fig. 8.4.

As-Built Project Detail

Project #: 000010 Segment #: 001 Status: **Active**
 OGC File #: Section 10 Field: **GROUND BIRCH** Engineer Project:
 From Location: DLS: - - - To Location: DLS: - - -
 Operator:

As-Built Activities | **Details** | Farm Tap | Location

CSA Class Location:	<input type="text" value="(None)"/>	MOP Stress % of SMYS:	<input type="text"/>
Line Type:	<input type="text" value="(None)"/>	Test Pressure (kPa):	<input type="text" value="13902.0"/>
Product:	<input type="text" value="Sour Natural Gas"/>	Stress at Test Pressure (kPa):	<input type="text"/>
H2S (mol %):	<input type="text"/>	Type of Joint:	<input type="text" value="(None)"/>
Partial Pressure (kPa):	<input type="text"/>	Internal Coating:	<input type="text" value="(None)"/>
NDT (%):	<input type="text"/>	Internal Coating Description:	<input type="text"/>
CO2 (mol %):	<input type="text"/>	External Coating:	<input type="text" value="(None)"/>
Pipe Length (m):	<input type="text" value="16000.0"/>	External Coating Description:	<input type="text"/>
Pipe O.D. (mm):	<input type="text" value="114.3"/>	Cover Depth (m):	<input type="text"/>
Wall Thickness (mm):	<input type="text" value="4.000"/>	Flange Material Standard:	<input type="text"/>
Material Standard:	<input type="text"/>	Flange ANSI Rating:	<input type="text"/>
Grade:	<input type="text" value="359-2"/>	Valve Material Standard:	<input type="text"/>
Grade Description:	<input type="text"/>	Valve ANSI Rating:	<input type="text"/>
Category:	<input type="text" value="(None)"/>	Fitting Material Standard:	<input type="text"/>
Design Pressure (kPa):	<input type="text" value="9930.0"/>	Cathodic Protection:	<input type="text" value="(None)"/>
Design Temp (C):	<input type="text"/>	Cathodic Type:	<input type="text" value="(None)"/>
MOP (kPa):	<input type="text" value="9930.0"/>	Internal Corrosion Program in place:	<input type="text" value="(None)"/>

Fig. 8.4. As-Built detail window

As information for each segment is saved, the check box under Pipeline Activity shows that it has been accepted, and marked as included.

Pipeline Activity					
Segment #	CSA Class Location	From Location	To Location	Status	Included
FID #	Valve	Division #			
<u>001</u>	(None)	DLS: -32-078-	DLS: -06-080-	Active	<input checked="" type="checkbox"/>
	None	None			
<u>003</u>	(None)	DLS: -32-078-	DLS: -32-078-	Active	<input type="checkbox"/>
	None	None			
<u>004</u>	(None)	DLS: -10-079-	DLS: -32-078-	Active	<input type="checkbox"/>
	None	None			

Fig. 8.5. Pipeline Activity fields

Attachments Tab

The [attachments tab](#) allows applicants to upload the required documentation.

Finalize Tab

The [finalize tab](#) shows a list of any outstanding Issues related to the application. KERMIT will not finalize an application that has outstanding actions to be completed.

9 Notice of Intent

The Notice of Intent (NOI) section details what information is required when submitting the notice in KERMT. The NOI types are:

- Decrease Maximum Operating Pressure (upstream).
- Decrease Maximum Operating Pressure (downstream).
- Repair or Replace pipeline (in-kind).
- Deactivate pipeline.
- Modify data.
- Install/replace/remove farm tap

Notice of Intent

A number of former NOI's have been re-categorized as amendments. Information on these operational amendments is located in [Section 10](#).

The NOI allows for the reporting of operational changes and modifications or repairs to existing pipelines requiring no new acquisition of land, or additional surface tenures, and no modifications to the pipeline permit.

Companies must submit a Pipeline Permit Application for construction of any new pipelines; this includes lines within an existing right-of-way.

Notices of Intent are reviewed by the Commission's Engineering division and the applicant will be notified by email if the notice is accepted or declined.

For any Notice of Intent requiring an engineering assessment, engineering assessments must be performed and documented to the standards outlined in the CSA Z662. They are considered engineering documents and, as per Section 20(9) of the Engineers and Geoscientists Act, must be sealed by a professional engineer licensed in the province of British Columbia. Refer to Appendix F for a complete list of clauses outlined within CSA Z662-11 that require engineering assessments.

Declined Notice of Intent

A notice may be declined if more information is required. A declined notice will include an explanation from the Commission. Once all deficiencies have been addressed, the notice can be re-submitted. A new application should not be created unless specifically requested in the decline notice. A pipeline Notice of Intent matrix is located in [Appendix C](#), and shows all pipeline activities which are submitted through the Notice of Intent process. It also indicates all other required submissions through to completion of the activity.

Notice of Intent

Go to Notice of Intent

- 1) Select NOI for project.
- 2) Select the activity from the NOI pipeline project menu.
- 3) Search for the related project.
- 4) Select the new NOI or permit related to the project.

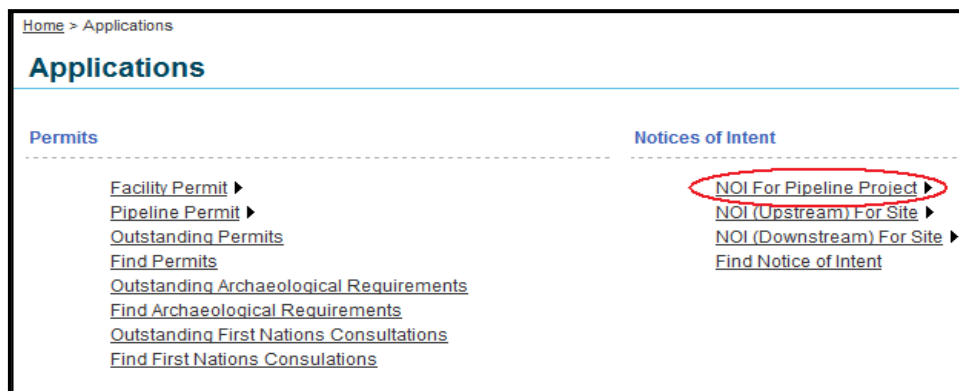


Fig. 9.1. Shaded mandatory fields in KERMIT

Find Notice of Intent

“Find Notice of Intent” is used to search for a previously created NOI; either to complete it, or determine its current status.

Find Notice of Intent can also be used when an applicant wants to create a new NOI but Kermit is not offering the correct segment as an option to select. Where this is the case; select find notice of intent and search the project number to see if one has been created and just needs to be completed.

NOI Page

Once the new Notice of Intent for the project has been opened, a job number is generated. Below this information are tabs where the applicant enters project specific information.

General Application Info

General application info shows the application source and provides a field for activity description. The activity description should include the date of the planned construction start and location of construction.

If the portion of the pipeline segment only affects one type of land (crown or private) only that box needs to be checked, regardless of whether the entire segment crosses both types.

The screenshot shows a web form with three tabs: 'Overview' (selected), 'Attachments', and 'Finalize'. Below the tabs is a green header for 'General Application Info'. The form contains the following fields and controls:

- Application Date: mmm dd, yyyy
- Application Source: Online
- Created Date: (empty)
- Created By: (empty)
- Completed Date: mmm dd, yyyy
- New PIMS FacilityId: (empty)
- Activity Description (Summarize work taking place for OGC review and for future reference): (text area)
- Crown Land: No Yes
- Private Land: No Yes

Fig. 9.2. General Application Info fields

If the description is more detailed than space will allow, a scope of work description attachment should be included to clarify. If there are two notices of intent that need to be submitted together, reference the other job number in the activity description.

The permit surface tenure holder is accountable for the accuracy of the application content entered into KERMIT. If the permit holder chooses to use outside agents or consultants, the permit holder remains accountable for the accuracy of the application.


Proponent

The proponent section captures key applicant information. Company name and information should appear automatically. If the company name does not appear, or the address is incorrect, the applicant must contact the Commission’s Corporate Land Management Unit to update the information prior to application submission.

If a company contact has previously been entered into the Commission database, use the find button to search for the contact. If no contact is found, enter the information manually.

Engineer’s Details

Company and engineer information can be entered by selecting the find button to the right of both fields.



The screenshot shows a form titled "Engineer's Details". It contains two input fields: "Company:" and "Engineer:". Each input field is followed by a "Find..." button. The form is enclosed in a black border.

Fig. 9.3. Engineering information fields

Field Contact

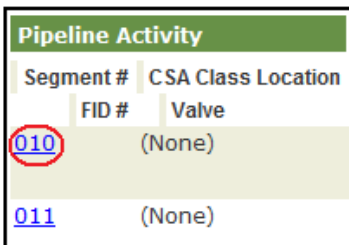
Enter the full name and phone number of the field contact for the project.

Pipeline Activity

Information must be provided for each segment showing under pipeline activity.

Open the segment by clicking on the segment number to the left of the line list details. The line list details appear for each segment of pipe.

The notice of intent project detail window opens, and the permit holder must fill in the required information and answer the conditional questions.



Segment #	CSA Class	Location
010	FID #	Valve
		(None)
011		(None)

The screenshot shows a table titled "Pipeline Activity". The first row has headers "Segment #", "CSA Class", and "Location". The second row has "010" in the "Segment #" column, "FID #" in the "CSA Class" column, and "Valve" in the "Location" column. The third row has "(None)" in the "Location" column. The fourth row has "011" in the "Segment #" column and "(None)" in the "Location" column. The "010" is circled in red.

Attachment Tab

The [attachments tab](#) allows applicants to upload documents and relate them to the job.

Include documents that will clarify and properly explain the scope of work.

Finalize Tab

The [finalize tab](#) shows a list of any outstanding Issues related to the application. KERMIT will not finalize an application that has outstanding actions to be completed.

Decrease MOP (Upstream)

If a permit holder wants to raise the MOP on lines after a decrease, a pipeline permit engineering amendment will be required (see [Section 10](#)).

Decreasing the maximum operating pressure (MOP) will not change the design pressure, but will reduce the maximum operating pressure of the line. It is used when: a) the current maximum operating pressure can no longer be safely sustained or b) field pressures have changed and the permit holder wants to decrease the maximum operating pressure to field match the pressures.

- 1) Select NOI for pipeline project.
- 2) Select decrease MOP (upstream).
- 3) Search for project.
- 4) Select new NOI for the related project number.
- 5) Enter required information in the [general application info](#), [operator](#), [engineering firm](#) and field contact sections.

Pipeline Activity	
Segment #	CSA Class Location
FID #	Valve
010	(None)
011	(None)

Pipeline Activity

Click on the pipeline segment(s) to open the NOI project detail window, and enter the new MOP (kPa) and new MOP Stress % of Specified Minimum Yield Stress (SMYS).

NOI Project Detail

Project #: Segment #: Status: Active

OGC File #:

From Location: NTS: To Location: NTS:

FID #: Valve: Division #:

Pipe

	Current	New
MOP (kPa):	<input type="text"/>	<input type="text"/>
MOP Stress % of SMYS:	<input type="text"/>	<input type="text"/>

Is the above activity to be applied to the whole length of the segment? Yes No None

If only a portion of the pipeline segment is included in the above activity, please submit an amendment for Splitting Segments before proceeding with this NOI.

Fig. 9.4. Notice of Intent project detail window

Pipeline Activity							
Segment #	CSA Class	Location	From Location	To Location	Status	IRIS Project #	Activity Entered
001	Class 1		NTS: [redacted]	NTS: [redacted]	Active		<input type="checkbox"/>

Is an Engineering Assessment (per the most recent revision of CSA Z662) required?: No Yes - Engineering Assessment attached

Does the above activity require a revised or site specific ERP?: No Yes (Not chosen)

Fig. 9.5. Pipeline Activity - Conditional questions

Answer the conditional questions:

In the [attachments](#) tab, upload documentation of the reasons for the maximum operating pressure decrease, and then [finalize](#) the notice.

Decrease MOP (Downstream)

If a permit holder wants to raise the MOP on lines after a decrease, a pipeline permit engineering amendment and a full engineering assessment will be required see [Section 10](#).

Decreasing the maximum operating pressure will not change the design pressure but will reduce the maximum operating pressure of the line. It is also used when the pipeline is being taken to pressures that are below the Commission’s jurisdictional pressure of 700kPa.

- 1) Select NOI (Downstream) for pipeline project.
- 2) Select decrease MOP.
- 3) Search for project.
- 4) Select new NOI for the related project number.
- 5) Enter required information in the [general application info](#), [operator](#), [engineering firm](#) and field contact sections.

Pipeline Activity

Click on the pipeline segment (s) to open the NOI project detail window, and enter the new MOP (kPa) and new MOP Stress % of Specified Minimum Yield Stress.

Answer the conditional questions:

Segment #	CSA Class	Location	From Location	To Location	Status	IRIS Project #	Activity Entered
001	Class 1		NTS: [redacted]	NTS: [redacted]	Active		<input type="checkbox"/>

Is an Engineering Assessment (per the most recent revision of No Yes - Engineering Assessment attached CSA Z662) required?:

Does the above activity require a revised or site specific ERP?: No Yes (Not chosen)

Fig.9.6. Pipeline Activity – Conditional questions

In the [attachments](#) tab, upload documentation of the reasons for the maximum operating pressure decrease, and then [finalize](#) the notice.

Repair or Replace Pipeline (In-Kind)

A repair to, or replacement of, a pipeline (segment) is a procedure which maintains integrity, and does not change design. The material replacing the existing segment may be one grade different and may have up to a ten percent difference in wall thickness as long as the percent stress at MOP does not increase.

A [Notice of Construction Start](#), [Notice of Pressure Test](#) and a [Leave to Open](#) are also required if pressure welding and/or pressure testing is conducted.

- 1) Select NOI for pipeline project.
- 2) Select Repair/Replace pipeline NOI.
- 3) [Search](#) for project.
- 4) Select New NOI for the related project number.
- 5) Enter required information in the [general application info](#), [operator](#), [engineering firm](#) and field contact sections.

This type of notice may also be used to submit plans for resuming production in lines that have been suspended for less than 18 months, but have not been formally deactivated, as required by Section 9 of the PLNGFR. To resume production in lines that have been formally deactivated, an amendment to re-activate is required. An [engineering assessment](#) is required with this submission.

Pipeline Activity

Click on the pipeline segment (s) to open the NOI project detail window, and enter the repair date and comments.

Comment Box

In the comment box indicate whether this is a repair due to maintenance or an incident.

If it is due to an incident, include the DGIR number (Provincial Emergency Program tracking number) given when the incident was reported or the application will be declined.

Include a schematic showing where along the segment the work will be taking place, or include the preventive maintenance results indicating the need for repair or replacement.

Comments must include the work locations addresses (UTM NAD 83 CSRS), a description of all work including descriptions of modifications and/or repairs.

Answer the conditional questions:

Is an Engineering Assessment (per CSA Z662, 10.11.6) required?: <input type="radio"/> No <input type="radio"/> Yes - Engineering Assessment attached
Does Change of Service require a revised or site specific ERP?: <input type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> (Not chosen)

Fig. 9.7 Conditional Questions

In the [attachments](#) tab, upload documentation providing a detailed scope of work. Attach any other documentation that may better clarify the application and then [finalize](#) the notice.

Deactivate a Pipeline

Any pipeline that has not had fluid flow for 18 consecutive months must be deactivated, as per Section 9 of the PLNGFR, or the permit holder must submit a plan to the Commission to resume production. All pipelines being deactivated must follow the process described in the following section.

Permit holders may want to contact the BC Assessment Authority regarding a tax reduction as a result of deactivation.

A permit holder wishing to deactivate a pipeline or segment(s) must follow the requirements of the latest edition of CSA Z662. No documentation is returned to the permit holder for this NOI type.

- 1) Select NOI (upstream/downstream) for pipeline project.
- 2) Select Deactivate Pipeline.
- 3) Search for project.
- 4) Select new NOI for the related project number.
- 5) Enter required information in the [general application info](#), [operator](#), [engineering firm](#) and field contact sections.

Background on the deactivation requirements for is located in [IL 08-09](#).

General Application Info

In the activity description box, indicate in detail what will be done to deactivate the line. Indicate whether the activity is located on Crown or Private land.

Pipeline Activity

Click on the pipeline segment (s) to open the NOI project detail window, and enter the deactivation date.

Fig. 9.8. Deactivation date field

Answer the conditional questions:

Segment #	CSA Class Location	From Location	To Location	Status	IRIS Project #	Activity Entered
001	Class 1	NTS: D -B/093	NTS: -B/093	Active		<input type="checkbox"/>

Will this installation require pressure welding and/or pressure testing?: No Yes (Construction Start required)

Is an Engineering Assessment (per CSA Z662, 10.11.6) required?: No Yes - Engineering Assessment attached

Does Change of Service require a revised or site specific ERP?: No Yes (Not chosen)

Fig. 9.9. Pipeline Activity – Conditional questions

In the [attachments](#) tab, upload include all relevant data and documentation (e.g. old notice of construction start, pressure test charts), and then [finalize](#) the notice.

Attachments Tab

In the [attachments](#) tab upload:

- Documentation providing a detailed scope of work, including all information listed under *Letter of Explanation*, below.
- Maintenance schedule list, which may be included as part of the scope of work attachment.
- Completed [Field Survey](#).
- Any other documentation that may better clarify the application and then [finalize](#) the notice.

Letter of Explanation

A Letter of Explanation should include:

- Reasoning for deactivation of the pipeline.
- Method of isolation.
- Pressure left on the pipeline.
- The medium used to fill the pipeline and the effects of the medium on the integrity of the pipeline.
- Method being used for internal and external corrosion monitoring and mitigation.
- Planned length of deactivation.
- Planned maintenance activities on the pipeline during the deactivation time frame.

Field Survey

The Field Survey should list the wells and pipelines in the area and which are active, suspended/deactivated and abandoned. This will provide the Commission with an overview of the field and help determine the potential future of the pipe.

Modify or Update Existing Data

Any discrepancies in pipeline specifications or details in KERMIT can be corrected or completed through the Modify Data Notice of Intent.

Such discrepancies may include:

- Incorrect product.
- Incorrect pressures.
- Identified pipelines size.

These discrepancies refer to the mistake in data entry. This does not apply to any data change that affects the application or amendment fees before permit approval, or any data change that should be addressed with an amendment (for example Change of Service amendment).

- 1) Select NOI for pipeline project.
- 2) Select Modify data.
- 3) Search for project.
- 4) Select new NOI for the related project number.
- 5) Enter required information in the [general application info](#), [operator](#), [engineering firm](#) and field contact sections.

General Application Info

Enter information about the modification in the activity description box and indicate if the activity is located on Crown or private land.

Pipeline Activity

Click on the pipeline segment (s) to open the NOI project detail window. In the comments box, enter any data that needs to be corrected or updated.

Specific information about data to be modified must be entered for each detail (segment).

Install Farm Taps

Farm Taps are given site numbers (FID#) associated with projects (not project numbers).

All work done against a Farm Tap will be registered under the site number issued upon Notice of Intent submission.

Farm tap is a natural gas riser and regulator which feeds from a pipeline to a distribution system supplying service to one or more customers at less than 700 kPa.

The addition, repair, replacement, or removal of a Farm Tap are all downstream Notices of Intent.

Schematics must be submitted as attachments.

Select NOI for Farm Tap.

Select Add, Repair/Replace, or Remove Farm Tap.

Enter required information in the [general application info](#), [operator](#), [engineering firm](#) and field contact sections.

Farm Tap

Use the Find button to search for the associated project. Under Farm tap information enter the correct project number and segment number of the pipeline being tapped into. Enter the Farm Tap I.D. (FID #) if applicable

Ensure the 911 Address is complete and the client name and the UTM co-ordinates are entered.

Fig. 9.10. Farm Tap information fields

Farm Tap

Project #: _____ Segment #:

From Location: _____ To Location: _____

Operator: _____

Farm Tap Id:

Address 911:

Client Name:

UTM (NAD83): - m easting, m northing

Farm Tap Pipeline Segment(s)

Length (m)	Pipe O.D. (mm)	
<input type="text"/>	<input type="text"/>	<input type="button" value="Delete"/>

Farm Tap Pipeline Segment

The farm tap pipeline segment button activates information fields where the length of the pipeline segment (m) and the outside diameter are to be added. Enter the required information for each pipeline segment.

In the [attachments](#) tab, upload all relevant schematics and a map with the location of the Farm Tap; then [finalize](#) the notice.

10 Pipeline Permit Engineering Amendment

For each project only one pipeline amendment can be submitted at once; multiple changes can be included within one amendment. In the event that two amendments are applied for on the same project at the same time the amendment that is accepted second will overwrite the amendment that was accepted first resulting in lost data.

Pipeline Permit Engineering Amendment Applications are requests to change the operating parameters of the original permit; therefore, the Commission is required to make a determination on the amendment application. All pipeline permit amendments are submitted through the KERMIT database. Section 3 of the Consultation and Notification Regulation identifies classes of persons that are prescribed for the purposes of Section 22 of OGAA.

Pipeline permit engineering amendments that are included in these prescribed classes are subject to the Consultation and Notification Regulation and Section 31 of OGAA. Pipeline permit engineering amendments that are not included in the prescribed classes are only subject to Section 31 of OGAA.

For more information on the prescribed classes and on the consultation and notification process, refer to the commission's [Consultation and Notification Guidelines](#).

Pipeline permit engineering amendments cannot be submitted alone for changes to surface land, but may need to be included in conjunction with any amendment submitted for changes to surface land.

Engineering design specifications need to be updated when amendments are issued. These specifications include:

- Engineering details in Kermit.
- Appurtenance design information.
- P&ID.
- Valve locations.

Changes that require a pipeline permit engineering amendment are:

- Change to CSA class location.
- Increase in Maximum Operating Pressure.
- Cancel pipeline .
- Modify sub-surface pipe.
- Repair/ replace (not in-kind).
- Installation of a mid-point riser.

- Change of service.
- Pipeline flow reversal.
- Abandon pipeline.
- Reactivate pipeline.
- Splitting segments.

All permit amendments should be as complete as possible, including all proposed changes to the pipeline permit being considered.

For any amendment requiring an engineering assessment, engineering assessments must be performed and documented to the standards outlined in the CSA Z662. They are considered engineering documents and, as per Section 20(9) of the Engineers and Geoscientists Act, must be sealed by a professional engineer licensed in the province of British Columbia. Refer to [Appendix F](#) for a complete list of clauses outlined within CSA Z662-11 that require engineering assessments.

More than one change to the permit may be included within the same amendment. For example splitting a line and installing a mid-point riser at the split junction.

If any activity applied for requires more surface land than what has been approved, please refer to the [Pipeline Permit Application Manual](#).

Amendment to Increase CSA Z662 Class Location

An amendment is required when a pipeline originally designed for a specific CSA class location experiences dwelling encroachments and/or development that will reclassify the pipeline and result in non-compliance. For definitions and explanations of class locations refer to CSA Z662.

This amendment will require:

- Consultation / notification written report in accordance with Section 31(6) of OGAA.
- [Engineering assessment](#).

This amendment may require:

- Modifications to the existing pipe.
- [Engineering design specifications](#).
- Engineering hazard controls.
- [Notice of Construction Start](#).
- [Notice of Pressure Test](#).
- [Notice of Leave to Open](#).
- [As-Built](#).

All changes, modifications, and controls must address the safety of the public, environment, workers and the pipeline. A [revised ERP](#) may be needed for this type of an amendment.

Amendment to Increase MOP

Permit holders may find that after subsequent wells are drilled in a given area there is a need to increase the operating pressure of any given line. This requires the permit holder to submit an amendment to increase the maximum operating pressure of the given pipeline.

This amendment requires:

- Consultation / Notification Written Report in accordance with Section 31(6) of OGAA.
- [Engineering Assessment](#).

This amendment may require:

- Modifications to the existing pipe.
- [Engineering design specifications](#).
- [Notice of Construction Start](#).
- [Notice of Pressure Test](#).
- [Notice of Leave to Open](#).
- [As-Built](#).

All changes, modifications, and controls must address the safety of the public, environment, workers and the pipeline. A [revised ERP](#) may be needed for this type of an amendment.

Amendment to Modify Pipeline

If a pipeline requires modification, an amendment to the original permit is needed. Examples of modifications to existing sub-surface pipeline include:

- Installing a liner within an existing pipeline.
- Installing a riser tee.
- Altering the diameter of the pipe.

Please refer to fee schedules to see if they are required for this application.

This amendment may require:

- New Construction Plan.
- Consultation / Notification Written Report in accordance with Section 31(6) of OGAA.
- [Engineering design specifications](#).
- [Notice of Construction Start](#).
- [Notice of Pressure Test](#).

- [Notice of Leave to Open](#).
- [As-Built](#).

Upon approval and as a condition of Leave-to-Open, this amendment may require an updated [ERP](#).

Amendment to Repair/Replace (not in-kind)

If all piping is the same as the original, it is a Notice of Intent for [Repair/Replacement \(in-kind\)](#).

To repair or replace existing pipe with a different spec of pipe, an amendment to the original permit is required.

The Repair/Replacement (not in-kind) may require a segment of a pipeline to be split to accommodate the repairs. This is done when the pipe needs to be upgraded and the existing pipe is no longer manufactured.

This amendment requires:

- New Construction Plan.
- Consultation / Notification Written Report in accordance with Section 31(6) of OGAA.
- [Engineering design specifications](#).
- [Notice of Construction Start](#).
- [Notice of Pressure Test](#).
- [Notice of Leave to Open](#).
- [As-Built](#).

This amendment may require:

- New land (see [Pipeline Permit Application Manual](#))
- New As-Constructed drawing

Upon approval and as a condition of leave to open, the amendment may require an updated [ERP](#).

Amendment to Install a Mid-Point Riser

An amendment is required when mid-point risers are to be installed where a new well is being brought onto a pipeline.

For any installation of a riser on a pipeline midway section (that is: – not at either end points), the original project number of the pipeline must be identified and the riser must be identified as to which pipeline segment the riser is to be attached and must also indicate the NTS or DLS location of the riser.

This amendment will require:

- Consultation / Notification Written Report in accordance with Section 31(6) of OGAA.

- [Engineering Design Specifications](#)
- [Notice of Construction Start](#)
- [Notice of Pressure Test](#)
- [Notice of Leave to Open](#)
- [As-Built](#)

Upon approval and as a condition of leave to open, this may require an updated [ERP](#).

Riser Locations

If there are risers associated with the pipeline, these riser locations need to be entered by NTS or DLS co-ordinates for location confirmation. These locations must be filled out and indicated on the design schematics as well as in the segment specification tab as shown below.

The screenshot shows a software interface for entering pipeline details. The top section is titled "Pipeline Details" and contains numerous input fields and dropdown menus. Fields include: CSA Class Location (Class 1), Line Type (None), Product (Natural Gas), H2S (mol %) (0), CO2 (mol %) (4.50), Pipe Length (m) (75.0), Pipe O.D. (mm) (114.3), Wall Thickness (mm), Material Standard, Grade (None), Grade Description, Category (None), Category Description, Design Pressure (kPa), Design Temp (C), MOP (kPa), Internal Coating (None), Internal Coating Desc, External Coating (None), External Coating Desc, Cover Depth (m), Flange Material Standard, Flange ANSI Rating, Valve Material Standard, Valve ANSI Rating, and Fitting Material Standard. Below this is a section titled "Risers" which contains a table with columns for Riser #, RIN, Legal Description, and UTM. A "New Riser" button is located at the bottom left of the risers section.

Fig.10.1 Adding a Mid-Point Riser select the new riser button

If there is a riser at the either endpoint of the pipeline, then it is applied for as part of the pipeline or is an amendment to the pipeline, even if it exceeds the width of the existing ROW. On applications this area should be included in the pipeline application, if it is an amendment, then it would be an amendment with new land required. Please see an example on the next page for further clarification.

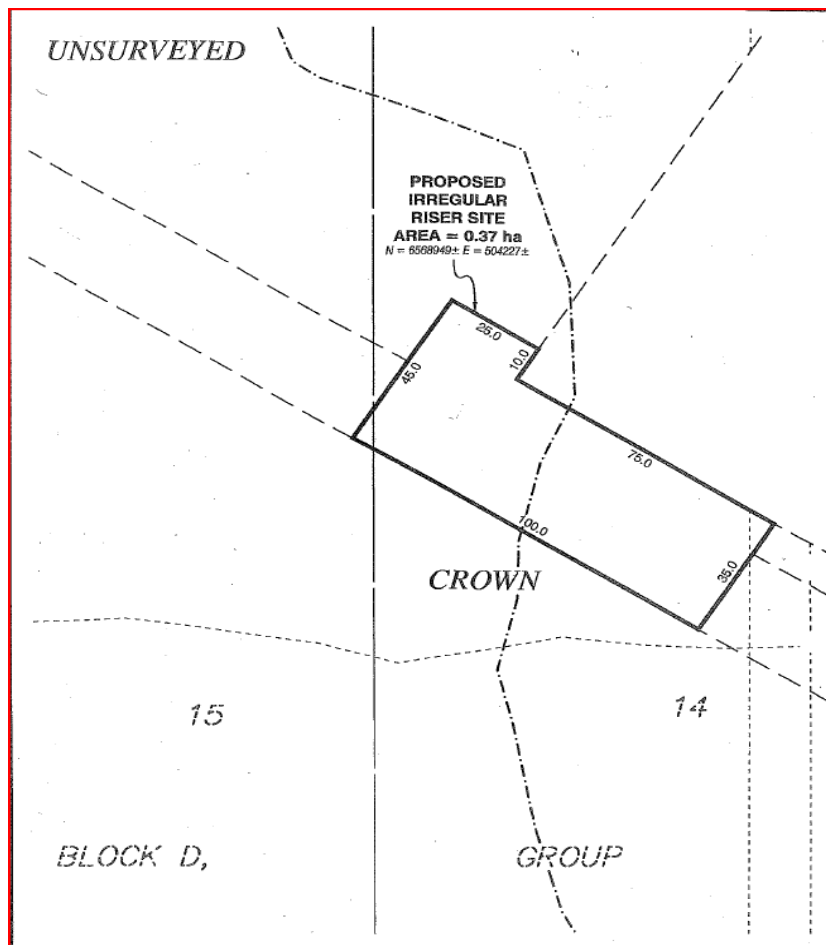


Fig. 10.2. New land required with riser

Amendment to Change of Service

It is critical that changes in service are submitted to the Commission before any changes occur, or upon the next differing gas analysis.

Information in regards to pipeline product must be entered for each segment under the Engineering tab. Any line with a partial pressure of H₂S greater than 0.3kPa, must be listed as sour product.

A Facility Permit Amendment must also be submitted if the pipeline change of service will create a change of service to the facility. For example if a pipeline becomes the largest H₂S concentration of the lines going into or out of the facility, and it therefore increases the licensed H₂S concentration of the facility; a facility permit amendment must be created.

The Facility Permit Amendment job number must be noted in the Pipeline Permit Amendment to have both applications reviewed simultaneously.

Refer to the [Facilities Manual](#) for more information on facility amendments.

Engineering Assessment

For any change of service an [engineering assessment](#) (in accordance with the CSA Z662), must be completed and submitted to the Commission.

Emergency Response Plan

The emergency response plan is to be evaluated and updated (if required), and must be on file with the Commission before any sour product is introduced into the pipeline.

If H₂S is increased from less than 1% to 1% or greater or has a surface development within the EPZ, there must be a site-specific ERP submitted to the Commission prior to commissioning or coming on-stream.

A facility Schedule 1 may also be attached depending on the nature of the change, as it may also affect the facility linkage codes.

If pressure welding and/or pipe pressure testing are to be conducted during the change in service a [Notice of Construction Start](#) and [Notice of Pressure Test](#) and [Leave to Open](#) are required.

This amendment will require:

- Consultation / Notification Written Report in accordance Section 31(6) of OGAA.
- [Engineering Assessment](#).

Facility Permit Amendment

- Engineering Design Specifications.
- This amendment may require:
- Facility Schedule 1 (formerly BC21)
- Updated P&ID if information changes.

Amendment to Reverse Flow

An amendment is required to reverse the flow of a specific pipeline. This does not apply to a change of service to the line; only a flow direction-change. This may also create modifications to the pipe of to an adjoining facility.

Concurrent Facility Applications

If modifications to the facility are required, refer to the Facility Application and Operations Manual to determine which application is required. If a Facility Application or Notice of Intent is required, the job number associated with those must be included on the pipeline amendment application.

If the flow reversal will cause a facility linkage change, a Facility Schedule 1 must be attached.

If there are facility applications that are required for the flow reversal all submissions will be accepted and reviewed simultaneously.

This amendment will require:

- [Engineering Assessment](#).
- Facility Permit Amendment
- Facility Schedule 1 (formerly BC21)
- New flow schematic

This amendment may require:

- Modifications to the existing pipe
- [Engineering design specifications](#)
- [Notice of Construction Start](#).
- [Notice of Pressure Test](#).
- [Notice of Leave to Open](#).
- [As-Built](#).

If modifications on the pipeline are required, it must be noted in the amendment in the description box.

Upon approval and prior to leave to open this may require an updated [ERP](#).

Amendment to Abandon

Pipelines may be abandoned in place if they are properly deactivated in accordance with CSA Z662; are cut and capped below grade; and include identification markers.

A Notice of Deactivation must be submitted before submitting an amendment to abandon.

The permit holder must also contact the BC Assessment Branch in reference to removal from the tax roll.

This amendment requires Consultation/Notification. During Consultation/Notification, the permit holder must allow the land owner the opportunity to request removal of easement of the title. Documentation of all consultation and any request for removal must be attached.

For lines being abandoned in the ground, the abandoned line must remain registered with [BC One Call](#) and above ground marker posts must be maintained. The company remains liable for the environmental impacts of the pipeline remaining in the ground. An updated as-built must be submitted showing the portions of the pipeline abandoned in place.

For abandoned lines removed in their entirety, the description page must include the removal and the date of the removal. Registration with BC One Call is not required if the line is being removed, but the operator is responsible for restoring the land after the removal.

Amendment to Re-Activate

Any pipeline that has not had fluid flow for 18 consecutive months must be deactivated, as per Section 9 of the PLNGFR, or the permit holder must submit a plan to the Commission to resume production. If the pipeline will be resuming production, an engineering assessment is required, and a pressure test may be required as part of the assessment. If a pressure test is required, it must be submitted via a Notice to Repair/Replace in Kind.

To reactivate a project, pipeline or segment(s) from a deactivated state, a permit holder must follow the requirements of the latest edition of CSA Z662.

This amendment will require:

- Consultation / Notification Written Report in accordance with Section 31(6) of OGAA.
- Engineering Assessment.
- Leave to Open.

This amendment may require:

- Modifications to the existing pipe.
- [Engineering design specifications](#).
- [Notice of Construction Start](#).
- [Notice of Pressure Test](#).
- [Notice of Leave to Open](#).
- [As-Built](#).
- Facility Schedule 1 (formerly BC21).
- Facility Permit Amendment.

This amendment approval requires the submission of an engineering assessment for Commission approval before Leave to Open is granted for reactivation. The assessment must meet the requirements outlined at the beginning of [Section 10](#) of this manual.

Amendment to Split Existing Segments

An amendment is required to split existing segments to accommodate further tie-ins to an existing line or repair work, or to deactivate/abandon portions of lines. This is an amendment that does not require consultation or notification unless it is in conjunction with a modification.

This amendment will require:

- A P&ID or drawing showing the portion of the line where the segment will be split.
- A revised As-Constructed drawing.
- A revised As-Built.

11 Integrity Management and Damage Prevention Programs

To ensure the safe operation of pipelines in B.C., OGAA establishes requirements for Integrity Management and Damage Prevention Programs. As per 7(1)(b) of the Pipeline and Liquefied Natural Gas Regulation, a pipeline permit holder must not operate a pipeline without first satisfying the following requirements:

The permit holder must prepare an [Integrity Management Program](#) for the pipeline that complies with CSA Z662 including Annex N

The permit holder must prepare a [Damage Prevention Program](#) for the purpose of anticipating and preventing damage to the pipeline

The pipeline must be operated in accordance with the Integrity Management Program and the Damage Prevention Program

The permit holder must be a member of BC One Call

Integrity Management Programs

Integrity Management Programs (IMPs) are intended to identify and assess activities that prevent or decrease the likelihood of incidents, as well as activities that mitigate the consequences of incidents, should they occur.

The Commission's [Self-Assessment Protocol](#) incorporates the contents of CSA Z662 and Annex N. It is a self-assessment tool designed to provide a consistent framework by which permit holders may evaluate their IMPs for conformance with regulatory requirements. The Requirements and Expectations within the Protocol have been developed based on feedback from stakeholders, the results of the trial assessments and dialog with industry working groups.

The Protocol is not intended to form a template for the development of a Permit Holder's IMP.

A random sample of pipeline permit holders will be notified in first quarter of every year to submit their IMP to the Commission within two months of the same year. The Commission reviews all submissions and assesses the compliance of the submissions using the Commission Assessment Report for the Evaluation of Integrity Management Programs for Pipeline Systems. The permit holder then meets with the Commission to discuss the assessment through Assessment Review Meeting(s). For more detail about the IMP process, including frequently asked questions, refer to Directive 2011-01.

All pipeline permit holders must update and re-submit the Self-Assessment Protocol a minimum of every five (5) years. The findings of the Commission's assessments are published in the Pipeline Integrity Management Plan Evaluation every calendar year.

The commission may audit the IMP of any permit holder at any time to ensure all hazards are adequately addressed and that the plans are being executed as written by all staff.

Damage Prevention Programs

Damage Prevention Programs (DPPs) are intended to reduce the frequency of preventable damage by addressing external/third-party threats to the integrity of pipeline infrastructure.

All pipeline permit holders must develop and implement a DPP and submit the program for review upon the Commission's request.

For a successful DPP, permit holders should:

- 1) Create a DPP that is appropriate in relation to the size, scale, and location of their operations.
- 2) Provide guidance on handling ground disturbance information.
- 3) Demonstrate a clear commitment by management to the damage prevention process.
- 4) Demonstrate a team approach that is appropriate in relation to the size, scale, and location of their operations.
- 5) Clearly identify roles and responsibilities.
- 6) Ensure that internal and external persons involved in the DPP have the appropriate competencies.
- 7) Develop policies and procedures to support their DPP.

- 8) Maintain records of their DPP.
- 9) Promote their DPP via regular communications with stakeholders.
- 10) Address the communication needs of different audiences within the community with respect to their DPP.
- 11) Utilize different methods to effectively communicate their DPPs.
- 12) Provide sufficient information to ensure that stakeholders are aware of their DPP responsibilities.
- 13) Ensure that their communications are frequent enough to effectively communicate their DPP.
- 14) Ensure appropriate signage is present and maintained for their underground infrastructure.
- 15) Ensure all right of ways are clear of vegetation that could reduce the visible presence of a right of way.
- 16) Become a member of BC One Call and join Damage Prevention organizations within their jurisdictions.
- 17) Identify and mitigate risk by designing DPP policies and procedures appropriate in relation to the size, scale, and location of their operations.
- 18) Establish a surveillance and monitoring program appropriate in relation to the size, scale, and location of the organization.
- 19) Develop policies and procedures for the development of crossing agreements to ensure that crossings are conducted in a manner consistent with the applicable regulations and the permit holder's safety protocols.
- 20) Conduct regular evaluations of their DPP and document and implement recommendations resulting from the evaluation process.
- 21) Include provisions for continuous quality improvement.

For more detail on creating a DPP, refer to [Recommended Practice for Damage Prevention Programs](#).

The Commission is in the process of developing an assessment program for the evaluation of DPPs that will ensure the permit holders have met the requirements of Section 7(1) of the PLNGFR.

12 Incident Reporting

Any pipeline incidents with potential to or resulting in damage to the integrity of a pipeline must be reported to the Commission; even if there is no spillage of product or substances from the pipeline.

The incident reporting criteria is applicable regardless of the status of the pipeline and the type of product released. That is, hits on a deactivated or abandoned pipeline, leaks of fresh water from a pipeline, or spills of any substances within the right-of-way of the pipeline during the construction or operational processes must be reported.

Causes of pipeline incidents include but not limit to:

Causes	Incident Examples
Corrosion	Internal corrosion External corrosion
External interference	Damage by permit holder excavation Damage by third party excavation Vandalism
Material manufacturing or construction	Defective weld Defective pipe body Wrinkle or buckle
Weather-related or geotechnical failure	Slope movement Wash-out erosion Freeze-thaw Lightning Fire
Overpressure	Overpressure failure
Non-operational damage	Damage during construction Pressure test failure

Incident Reporting Requirements

Notification Procedures

The Commission is in the process of updating the KERMIT incident notification system. In the interim, permit holders are required to immediately notify the Commission by contacting Emergency Management BC (EMBC)/Provincial Emergency Program (PEP) at 1-800-663-3456, and must also submit any required documentation for all pipeline incidents which have potential to impact public health and safety, the environment, or property. Incidents which have been identified as “other” must be logged by the permit holder. All incident logs must be maintained for the life of the pipeline and be available for viewing by the Commission at any time.

Post Incident Reporting Requirements

For incidents, other than those classified as “other”, submit the Form D Permit Holder Post-Incident Report along with any failure analysis results to the Commission within 60 days from the pipeline incident to EMP@bcogc.ca.

The report should reflect the analysis of what changes are needed to prevent the occurrence of similar incidents.

Should an extension of the 60 day time frame be required, the permit holder must notify the Commission in writing at EMP@bcogc.ca.

Incidents, classified as “other” include, but are not limited to the following:

- Unauthorized vehicle crossings of pipelines
- Pipeline over pressure
- Failure (without release) of any pressure control or ESD device
- Failure of any corrosion protection system or program
- Failure to complete any scheduled pipeline patrol or surveillance activity as required per the operators DPP
- Failure to maintain well identified pipeline right of ways, including vegetation clearing and maintaining adequate pipeline markers.
- Failure to maintain annual communication with affected land owners.

Repair Procedure

When filing for a repair or replacement after an incident, a permit holder can do the following:

- Submit an NOI of [Repair/Replace](#) Pipeline (in-kind) for repairing and replacing a pipeline with the same material specification; or
- Submit a Pipeline Amendment for [Repair/Replace](#) pipeline with different material specification (not in-kind).

13 Compliance

The Oil and Gas Commission may request information from any pipeline operator under its jurisdiction to ensure compliance with the Oil and Gas Activities Act and its Regulations. This includes compliance with all permits and other authorizations granted by the Commission.

Oil and Gas Activities Act (OGAA)

A person found by the Courts, to have contravened OGAA may be subject to a fine not exceeding the amount specified in Section 86 of the act. A person found by the Commission, to have contravened OGAA may be liable to an administrative penalty not exceeding the amount specified in the Administrative Penalties Regulation.

Pipeline and Liquefied Natural Gas Facility Regulation (PLNGFR)

A person who contravenes the PLNGFR (as specified in the Administrative Penalties Regulation, Section 6) may be liable to an administrative penalty ranging from \$5,000 to \$500,000.

Appendix A - Glossary

Acid Gas	A natural gas or any other gas mixture containing significant quantities of hydrogen sulfide (H ₂ S), carbon dioxide (CO ₂), or similar contaminants.
Cathodic Protection	A technique to prevent the corrosion of a metal surface by making that surface the cathode of an electrochemical cell.
Class Location	A geographical area classified according to its approximate population density and other characteristics that are considered when designing and operating a pipeline.
Coal bed Gas (Methane)	Natural gas produced from a coal bed.
Competent	Proven qualified, trained, and experienced to perform the required duties.
Crude Oil	Sweet processed and/or dehydrated sales oil for refinery feedstock. The effective hydrogen sulphide partial pressure is less than 0.3kPa at the bubble point absolute pressure.
Design Pressure	The maximum pressure to which the pipeline and its appurtenances were designed to, including all safety factors.
Domestic Use (water)	Water intended for direct human contact such as, consumption, food preparation, utensil washing, and hygiene.
Downstream Activity	The selling, distributing of natural gas and the refining of petroleum
Engineering Assessment	A documented assessment of the effect of relevant variables upon fitness for service or integrity of a pipeline system, using engineering principles, conducted by, or under the direct supervision of, a competent person with demonstrated understanding and experience in the application of the engineering and risk management principles related to the issue being assessed. Note: General requirements for engineering assessment are specified in CSA Z662-11 Clause 3.3.
ePASS	Electronic petroleum applications spatial submissions; all companies new to the Commission must create an ePASS account.
ERP	Emergency response plan
Facility	means a system of vessels, piping, valves, tanks and other equipment that is used to gather, pump, compress, process, measure, store or dispose of petroleum, natural gas, water or a substance referred to in paragraph (d) or (e) of the definition of "pipeline";
Facility Schedule 1	A Schedule 1 is used to define the physical flow process, and well or facility to facility linkages.

Fresh water	Water of up to 4000 milligrams per litre of total dissolved solids that originates in a lake, stream, dugout, water source well, or other surface or subsurface water body. Only water intended for Domestic Use will be permitted by the OGC as a fresh water pipeline. Fresh water not for domestic use shall be considered produced water for all applications.
Fuel Gas	Sweet natural gas used for the purpose of running equipment and instruments
High Vapour Pressure	hydrocarbons or hydrocarbon mixtures in the liquid or quasi-liquid state with a vapour pressure greater than 110 kPa absolute at 38 °C, as determined using the Reid method (see ASTM D323)
Isolating valve	a valve for isolating laterals, stations, pressure-relieving installations, and other pipeline segments or facilities
KERMIT	Is the Commissions Knowledge, Enterprise, Resource Management, Information and Technology data system. Kermit enables electronic submission of applications, performance and compliance data submission, and electronic workflow management.
Low Vapour Pressure	hydrocarbons or hydrocarbon mixtures in the liquid or quasi-liquid state with a vapour pressure of 110 kPa absolute or less at 38 °C, as determined using the Reid method (see ASTM D323)
Low-pressure distribution system	A pipeline system that is operated at less than 700kPa for the distribution of sweet natural gas. These pipelines are currently regulated by the BC Safety Authority.
Maximum operating pressure (MOP)	the maximum pressure at which piping pipeline is licensed to be operated
Miscellaneous Gases	(air, ammonia, carbon dioxide, ethane, helium, hydrogen, H ₂ S, nitrogen, steam)
Miscellaneous Liquids	(produced water, sulphur slurry)
Multiphase fluid	Oil, gas, and water in any combination produced from one or more oil wells, or recombined oil well fluids that possibly have been separated in passing through surface facilities.
Natural Gas - Sweet	Natural gas with a partial pressure of H ₂ S Less than 0.3 kPa based on MOP
OGAA	Oil and Gas Activities Act
Oil Emulsion	REMOVE FROM KERMIT
Oilwell Effluent	Produced oil or emulsion in which the effective hydrogen sulphide partial pressure is less than 0.3kPa at the bubble
PLNGFR	Pipeline Liquids Natural Gas Facilities Regulation
Pipeline Segment	a section of pipeline within the pipeline system

Pipeline System	Pipelines, stations, and other facilities required for the measurement, processing, gathering, transportation, and distribution of oil or gas industry fluids..
Pipeline	Those items through which oil or gas industry fluids are conveyed, including pipe, components, and any appurtenances attached thereto, up to and including the isolating valves and/or pig barrels located at stations and other facilities.
Produced Water	Water that flows or is extracted to the surface from a natural gas or oil well, including water that has been injected into the formation, and including any chemicals added during the production/treatment process. This includes flow-back fluids from well completion and stimulation operations. This also includes any fresh water not used for domestic purposes.
Product	The substance that is contained within the pipeline.
Proponent	The company that holds or is applying for a pipeline permit.
Salt Water	Water of greater than 4000 milligrams per litre of total dissolved solids that originates from a geologic formation.
Sour Crude Oil	Processed and/or dehydrated sales oil for refinery feedstock in which the effective hydrogen sulphide partial pressure exceeds 0.3kPa at the bubble point absolute pressure.
Natural Gas - Sour	Natural gas with a partial pressure of H ₂ S greater than 0.3 kPa based on MOP.
Sour Oilwell Effluent	Produced oil or emulsion in which the effective hydrogen sulphide partial pressure exceeds 0.3kPa at the bubble point absolute pressure.
Upstream Activity	Recovery, production and gathering of natural gas and petroleum.

Appendix B – Notice of Intent Matrix

	Notice of Intent	Pre-Construction	During Construction		Post Construction
		Notice of Construction Start	Notice of Pressure Test	Leave to Open	As-Built
Decrease MOP (upstream)	Y	N	N	Y	N
Decrease MOP (downstream)	Y	N	N	Y	N
Modify Data	Y	N	N	N	Y*
Repair/Replace (in-kind)	Y	Y	M	Y	N
Install Farm Tap	Y	Y	Y	Y	Y

Y = Required submission

Y* = if not previously submitted

N = Not required

M = May be required if any work was done to allow for task

Appendix C – Amendment Matrix

	Amendment	Pre-Construction	During Construction				Post Construction
		Notice of Construction Start	Facility Amendment	Facility Schedule 1	Notice of Pressure Test	Leave to Open	As-Built
Change in CSA Class Location	Y	N	N	N	N	Y	M
Increase MOP	Y	N	N	N	Y	Y	M
Cancel Pipeline	Y	N	N	N	N	N	N
Modify Sub-Surface Pipe	Y	Y	N	N	Y	Y	Y
Repair/Replace (not in-kind)	Y	Y	N	N	Y	Y	Y
Installation of Mid Point Riser	Y	Y	N	N	Y	Y	Y
Change of Service	Y	N	Y	Y	M	Y	Y
Pipeline Flow Reversal	Y	N	N	Y	N	Y	Y
Abandon Pipeline	Y	N	N	N	N	N	M
Splitting Segments	Y	N	N	N	N	N	Y

Y = Required submission

N = Not required

M = May be required if not previously submitted.

If more than one amendment is being applied for (For example, increase MOP and modify sub-surface pipe), the documentation requirements for each must be met.

Appendix D – Engineering Assessment Requirement Clauses per CSA Z662

Engineering assessment required by CSA Z662-11

Table 4.2: to support the use of a higher value being used for location factor on a gas pipeline

Clause 4.3.12.2 for pressure test design of components not listed in Z662-11

Clause 4.4.3 to determine spacing for isolating valves, unless spaced as per table 4.7

Clause 5.1.3 for use of materials other than as specified in the standards

Clause 5.2.4/5.2.5.1 for use of materials other than table 5.3

Clause 5.6.1 for reuse of materials in a different system than they were removed from

Clause 9.1.3 for exclusion of certain corrosion control practices

Clause 10.3.1.1 to confirm which sections are suitable for use where conditions which can lead to failure are discovered

Clause 10.3.1.2 to determine which portions may be susceptible to failure prior to operating at a higher pressure than the ESTABLISHED operating pressure. (This may include changes which are below MOP)

Clause 10.3.7.1 prior to a change in service fluid (NOTE: THIS IS ANY CHANGE IN SERVICE FLUID)

Clause 10.3.8 prior to upgrading to a higher MOP

Clause 10.3.9.1 prior to pressure testing existing piping to make sure the line will not be adversely affected and that the line can sustain the proposed pressure.

Clause 10.7.1 where a change in class location occurs to allow for meeting anything other than the higher class location requirements

Clause 10.8.1 where an existing pipeline is crossed by a road or railway where not updating the design to accommodate.

Clause 10.8.3 to confirm that a pipeline can sustain the anticipated surface load for any crossings other than road or rail.

Clause 10.9.2.4 to return an above ground tank to service following a repair without a hydrostatic test.

Clause 10.10.1.4 to determine suitable operating pressure where defects may make the pipeline unsuitable for normal operating pressure.

Clause 10.10.2.1 to use a different maximum length and depth of corrosion limit than specified in figure 10.1

Clause 10.10.2.7 to determine that a corroded area is acceptable which does not meet the criteria of other clauses in 10.10.2

Clause 10.10.4.2 to determine dents other than those listed are acceptable.

Clause 10.10.5 to determine surface cracks to be acceptable.

Clause 10.10.7 to determine weld defects to be acceptable.

Clause 10.11.4.3 to support design and installation of repair sleeves

Clause 10.12.1.1 to support a temporary repair method (welding or non-welding)

Clause 10.15.2.1 prior to reactivating a pipe

Clause 12.4.1.4 to support designs in gas distributions systems which use a weak link in the event of excessive pullout force

Clause 12.4.2.4 to determine the chemical factor for liquid hydrocarbons between 0.5 and 1 for polyethylene piping design pressure calcs.

Clause 13.1.2.16 to demonstrate adequate corrosion resistance of some types of risers or couplings on composite lines for the life of the pipeline where cathodic protection will not be provided.

Clause 13.2.2.12 to thermoplastically line previously in service pipes (unless a leak test is run)

Clause 13.2.8.3 to support continued use of the pipeline following a liner breach on thermoplastically line pipe

Clause 13.3.3.6 to demonstrate adequate corrosion resistance of some types of risers or couplings on Polyethylene lines for the life of the pipeline where cathodic protection will not be provided.

Clause 16.8.7 for any sour lines where there is a possibility of a change in service fluid composition or operating conditions to determining whether the pipeline is suitable for the new conditions.

Clause 16.10.3.2 for any gas pipelines being returned to service after an extended period of non-use prior to admission of sour fluids.

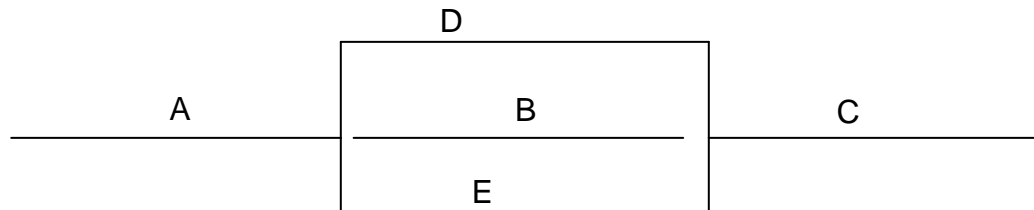
Clause 17.4.7 for above ground installations on composite reinforced steel pipelines to ensure suitability.

Clause 17.10.3 to determine that a corroded area is acceptable which does not meet the criteria of 10.10.2

Clause N.13.1 where inspection, testing, patrol or monitoring indicate conditions or imperfections which might lead to failure or damage incidents with significant consequences. (to be performed to N.13.2.2)

Appendix E – Example of a Replacement

Example 1: Replacement of section of pipe that will be left in place



LEGEND

- A: Beginning of original Segment
- B: Portion of original Segment being abandoned
- C: End of original Segment
- D: Bypass being installed
- E: New permanent segment

CASE 1: Midpoint is being abandoned or removed. Bypass is being run during construction of replacement segment only. Final configuration will include A, E and C.

1. Create a NEW LAND type of amendment. Split the original segment into A and B. If any changes are being made to A, it must be on the front tab of the split segment details, and the changes entered on that tab (e.g. install riser, change pressure etc).
 - a. Add C and E as new segments. Mention in the details or notes that C is actually the final portion of existing segment (Kermit will not let you split more than once).
 - b. Include discussion of D in the project description and show it in the P&ID. You do not need to show all bypass connections.
2. When B is no longer in service, complete a Notice to Deactivate. This can also be done ahead of time if you are sure of the dates.

3. When step 2 is approved, complete an Amendment to abandon.
4. Submit NCS, NPT, LTO and As Built for E as normal. Ensure D is removed as part of bringing E into Service, as this will be a condition in your permit.

CASE 2: Midpoint is being abandoned or removed. Bypass D is being for a period prior to construction of E, as well as during construction. This may be due to other work occurring, scheduling of routing etc. Final configuration will include A, E and C.

1. Create a NEW LAND type of amendment. Split the original segment into A and B. If any changes are being made to A, it must be on the front tab of the split segment details, and the changes entered on that tab (e.g. install riser, change pressure etc).
 - a. Add C, D and E as new segments. Mention in the details or notes that C is actually the final portion of existing segment (Kermit will not let you split more than once).
2. When B is no longer in service, complete a Notice to Deactivate. This can also be done ahead of time if you are sure of the dates.
3. When step 2 is approved, complete an Amendment to abandon.
4. Submit NCS, NPT, LTO and As Built for D as normal.
5. Submit NCS, NPT, LTO and As Built for E as normal. This will generally be sometime after Step 4. NOTE: If this is not completed within 2 years of the application, you may need to file an extension request in order to prevent the approval expiring and being cancelled in Kermit.
6. When D is no longer in service, complete a Notice to Deactivate. This can also be done ahead of time if you are sure of the dates.
7. When step 6 is approved, complete an Amendment to abandon.

Appendix F – Sample P&ID

