Appendix A

Pipeline Licensing User Manual

Manual ERD001

May 16, 2023

Revision 11.0

Governing Legislation:

Act: The Pipelines Act, 1998

Regulation: Pipeline Administration and Licensing Regulations

Order:

Saskatchewan

Record of Change

Revision	Date	Description
0.0		Initial draft
1.0	January 20, 2020	Approved first version
2.0	May 5, 2020	Update to Pipeline Licence Transfer application process, Risk Rules and Disclosure Questions
3.0	June 3, 2020	Update to Segment Cancellation application process
4.0	January 18, 2021	Unlicensed Flowlines and Pipelines Retroactive Licensing
5.0	June 23, 2021	Audit Documentation
6.0	July 7, 2021	Update to Audit Documentation Requirements
7.0	December 6, 2021	Update to Audit Documentation Requirements Other Regulatory Requirements
8.0	December 14, 2021	Added new section 3.2.6 for Legacy pipeline shapefiles submitted through the segment data amendment process
9.0	August 3, 2022	Non-Routine Abandonments section 10.3 Added Field-work notification changes New Appendix D Added Further information aligning to Revision 2.0 of PNG034: Saskatchewan Pipeline Code
10.0	December 28, 2022	Updated table C.0.3 in the pipeline licensing user manual to remove disclosure question P24

11.0	May 16, 2023	Updated mandatory information for retroactive pipelines with "Operating" status: Table 4.1: Data Associated with an Operating Retroactive Pipeline • Referenced Pressure Control and Overpressure Protection as a required data • Referenced Segment Design Pressure and Calculated Design Pressure as a required data Table 23.18: Data Associated with the Retroactive Licensing Template for Pipelines with "Operating" status, where: • Mandatory to indicate Overpressure Protection system meets requirements outlines in ER's directive and guideline • Mandatory to indicate Overpressure Protection and Pressure Control systems meet requirements outlines in ER's directive and guideline • Commentary for Calculated Design Pressure – IRIS calculates design pressure based on material information provided • Commentary for Segment Design Pressure – design pressure must be entered for each segment Section 24: Audit Documentation • New Sub-section, 24.4 Technical Submission Audit • New Sub-section, 24.4.1 Access Audit Obligation and Checklist • New Sub-section, 24.4.2 Access and Upload of Requested Documents to FTP Site • New Sub-section, 24.4.3 Obligation Fulfillment and ER Notification

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1 Introduction

This user manual assists with executing all business processes related to pipeline licensing using the Integrated Resource Information System (IRIS) and is not for the purpose of enforcing regulatory requirements.

All pipeline applications will be filed using IRIS and submitted based on the business process you would like to carry out. In the sections to follow, several tables are provided to assist the applicant with inputting and interpreting pipeline data.

Questions on the user manual can be directed to the ER Service Desk at 1-855-219-9373 or ER.servicedesk@gov.sk.ca.

1.1 Interpretation

This user manual applies to all pipelines that are subject to the jurisdiction of *The Pipelines Act, 1998.* Unless otherwise specified, in this manual, a reference to a pipeline includes a flowline.

1.2 Definitions

The following definitions apply to the interpretation of other terms that appear in this user manual.

Amendment: means an approval to alter the segment from its original design.

Butane: means a liquid mixture mainly of butanes that ordinarily may contain some propane or pentanes plus. For reporting purposes there are NC4-SP, NC4-MX, IC4-SP, and IC4-MX. Source: Directive PNG017

Condensate: A liquid hydrocarbon product with a density of ≤ 780 kg/m3 that existed in the reservoir in a gaseous phase at original conditions and that is recovered from a gas stream when pressure and temperature are reduced to and not lower than those at base conditions Source: Directive PNG017.

Crude Oil: means crude petroleum oil and any other hydrocarbon, regardless of density, that is or is capable of being produced from a well in liquid form but does not include condensate. Source: *The Oil and Gas Conservation Regulations, 2012*

Designated Pipeline: as defined in Directive PNG034.

ER: means Saskatchewan Ministry of Energy and Resources.

Ethane: means a mixture mainly of ethane that ordinarily may contain some methane or propane. Petrinex reporting product types are C2-SP (pure ethane) and C2-MX (mixture of ethane and propane and other products).
Alberta Source: Oil and Gas Conservation Act

File Transfer Protocol (FTP) Site: is a secure file transfer system used for technical submission audits.

Flowline: as defined in Directive PNG034.

Fresh Water: fresh-water-bearing formation" means a permanent subsurface water bearing formation with a significant volume of recoverable water that has total dissolved solid concentrations of less than 4 000 milligrams per litre.
Source: The Oil & Gas Conservation Regulations, 2012).

Helium: means, in addition to its normal scientific meaning, a mixture mainly of helium that ordinarily may contain some nitrogen and methane.
Alberta Source: *Oil and Gas Conservation Act*

Hydrocarbon Diluents: means hydrocarbon such as condensate or C5-SP blended with oil to meet pipeline viscosity and density targets.
Source: Directive PNG017

HVP Products: means any hydrocarbon and stabilized hydrocarbon mixture with a Reid Vapour Pressure greater than 14 kilopascals.
Source: Oil and Gas Conservation Rules

Liner: means a pressure containing tubular product that is inserted into a pipeline.

LVP Products: means low vapor pressure product including condensate, diesel fuel, gasoline, heating oil, hydrocarbon diluents, kerosene, and solvents.

Methane: means, in addition to its normal scientific meaning, a mixture mainly of methane that ordinarily may contain some ethane, nitrogen, helium or carbon dioxide.
Alberta Source: *Oil and Gas Conservation Act*

Methanol: means liquid CH_3OH.

Miscellaneous Liquids: means a class of liquids including ammonia, caustic, glycol, methanol, polymer, Sulphur, and carbon dioxide.

MPR: means Maximum Pressure Rating.

Multiphase Fluid: Unseparated fluid that contains liquids, gases and or solids in a single stream.
Source: Directive PNG017

Natural Gas: means methane with less than or equal to 10 mol/kmol of H_2S content.

Non-Standard Pipe Material: means any material type, material standard, or grade, or combination of the above, that has not been previously approved by ER.

Oil Well Effluent: means commingled well production that may contain a mixture of hydrocarbon liquids and gas or water in the stream.
Source: Directive PNG017.

Pipeline*:* as defined in Directive PNG034.

Produced Water: Water produced in connection with oil and natural gas production.
Source: Directive PNG017

Propane: means, in addition to its normal scientific meaning, a mixture mainly of propane that ordinarily may contain some ethane or butanes.
Alberta Source: *Oil and Gas Conservation Act*

Risk Rule: means a rule that the system runs and if positive it will result in a non-routine submission.

Segment: means a portion of a pipeline that is identified using a Segment ID.

SMYS: means Specified Minimum Yield Strength.

Solvents: A suitable mixture of hydrocarbons ranging from methane to pentanes plus but consisting largely of methane, ethane, propane, and butanes for use in enhanced-recovery operations.
Source: AER Glossary

Sour Natural Gas: Natural gas with > 10 mol/kmol of H_2S content.

Steam: means the vapor into which water is changed when heated to the boiling point. For reporting to Petrinex the sum of all steam injection volumes of varying quality, reported as a cold-water equivalent volume.

Source: Directive PNG017.

Subject Matter Expert (SME): means an ER representative that has specific knowledge and is authorized to make informed decisions on applications, in certain fields of work/expertise.

Sulphur: means a chemical element commonly found in conventional natural gas, crude bitumen, crude oil, and coal.
Source: AER Glossary

Synthetic Crude Oil: means a mixture, mainly of pentanes and heavier hydrocarbons, that may contain sulfur compounds, that is derived from the processing of heavy oil and that is liquid at the conditions under which its volume is measured or estimated and includes all other hydrocarbon mixtures.
Source: Directive PNG017.

Validation Rule: means a check that the system runs which prevents the user from making a submission if data is not populated.

For further definitions, please see:

- *The Pipelines Act, 1998*;
- *The Pipeline Administration and Licensing Regulations;* and,
- *Directive PNG034: Saskatchewan Pipelines Code.*

1.3 Other Regulatory Requirements

A pipeline licence or any other approval issued by ER is approval for matters that fall within the jurisdiction of *The Pipelines Act, 1998*. Applicants for a pipeline licence are advised to contact the following agencies or government ministries to determine other applicable regulatory requirements related to the design, construction, and operation of a proposed pipeline:

- All municipalities that the pipeline crosses or is located within;
- Ministry of Environment;
- If the pipeline is located within 2.5 kilometres of the boundaries of an urban municipality, Ministry of Government Relations;
- If there are any archeological sites along the pipeline right of way, Ministry of Parks, Culture and Sport;
- If a pipeline is located with 90 metres of the surveyed limited of a provincial highway or within 30 metres of the survey limit of a road other than a provincial highway, Ministry of Highways.
- If the pipeline is located within 30 metres of a utility or pipeline, operator of that utility or pipeline;

- If the pipeline is for freshwater transportation, the Saskatchewan Water Security Agency;
- If the pipeline crosses crown agricultural land, the Ministry of Agriculture;
- Any other approvals required under Saskatchewan or other applicable laws.

2 General Details

2.1 Scope

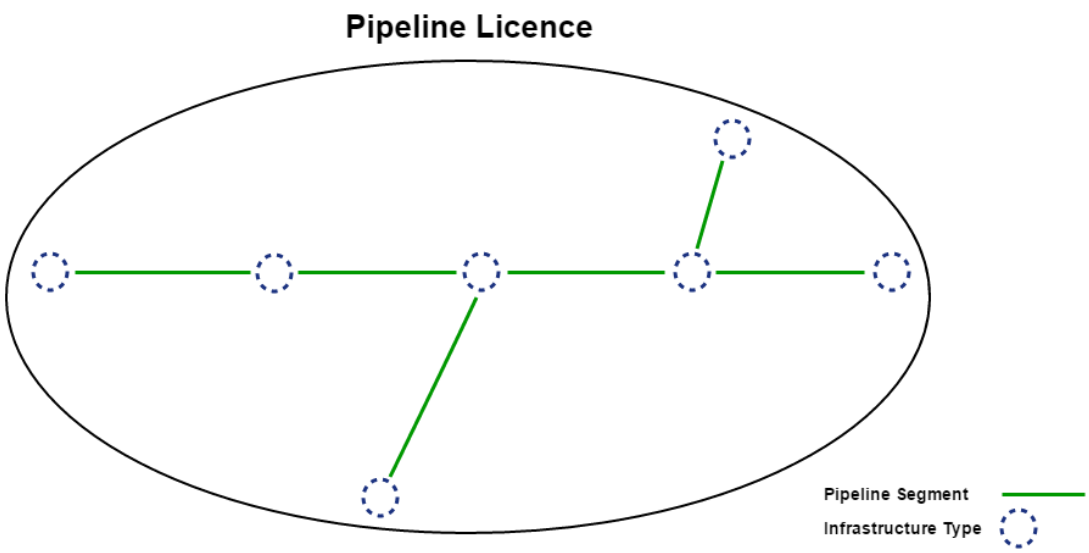
This section outlines all general details that apply to the pipeline segment(s).

The data attributes are divided into licence level attributes, segment level attributes and submission level attributes.

2.2 Licence Details

Figure 2.1 Below depicts an example licence and its associated segments:

Figure 2.1: Licence and Associated Segments



A **licence** is a mechanism for operators to group segments together. The following data elements are the same across all segments under a licence:

- Licensee BA
- Licence Status
- Licence Type
- Licence Substance
- Substance Subtype
- Maximum H_2S
- Gas Phase

2.2.1 Licence Status

The list of statuses for a licence are listed in Table 2.1.

Table 2.1: Licence Status

Status	Description
Issued	The licensee has been issued a licence for the segment(s).
Suspended	ER has temporarily suspended a licence for non-compliance reasons or other.
Cancelled	ER has permanently cancelled a licence for non-compliance reasons or other.

2.2.2 Licence Level Data

The licence level attributes are listed in Table 2.2.

Table 2.2: Licence Level Attributes

Data Element	Description
Licence #	The IRIS generated licence number that identifies the licence upon approval. If the licence number is issued prior to IRIS Pipeline Module (July 15, 2019), the format of a licence number is PL-XXXXX (e.g., PL-01234). If the licence number is issued after the IRIS Pipeline Module launch, the format of a licence number is PL-XXXXXXXX (e.g., PL-00000123)
Industry Licence Ref #	The industry licence reference number identifies the proposed licence based on internal industry standards/practice.
Licence Type	The overall type of the licence being issued: • Flowline • Pipeline
Licence Name	The applicant provides an optional name for the licence based upon internal naming conventions.
Licence Substance	The primary substance being transported in all segments under the licence. This is a drop-down list of substances. If the proposed licence has a mixture of multiple substances, the applicant selects the substance which has the highest concentration within that mixture of substances.
Substance Subtype	If applicable, the subcategory of the primary substance being transported in all segments under the licence. This is a drop-down list for the subcategory of licenced substance. The substance subtype is only mandatory if the primary substance is “Miscellaneous Liquids” or “Miscellaneous Gases”.
Maximum H_2S (mol/kmol)	The maximum allowable concentration of hydrogen sulphide (H_2S) present in the substance for each segment under a given licence. Displayed to 4 decimal places.

	This is the maximum allowable H_2S concentration for the licence and, therefore, all segments under this licence operate at or below the maximum allowable concentration.
Maximum H_2S Percent	The maximum H_2S provided by the applicant is presented as a percentage. Displayed to 2 decimal places. $\frac{H_2S\ concentration}{1000} \times 100$
Maximum H_2S Parts Per Million	The maximum H_2S provided by the applicant is presented as a parts per million (PPM). Displayed to 0 decimal places. $H_2S\ Percent \times 10000$
Gas Phase	If the licence substance is a liquid, the applicant indicates if it contains a gas phase at the intended MOP.

Note: The system displaying a value to a certain decimal place is not equivalent to ER imposing a requirement on industry to provide a value to that level of accuracy. For instance, if H_2S concentration is displayed to 4 decimal places, industry can provide H_2S concentration to 2 decimal places and proceed with their application processes.

2.3 Segment Details

The following sections outline detailed information about the segment including segment status, line pipe specifications, free-standing liner specifications, segment details, specification changes, and pressure test data.

2.3.1 Segment Status

Table 2.3 defines the different statuses that can be assigned to a segment, as well as events that result in a change to a status of a segment.

Table 2.3: Segment Status

Status	Description	Event that Causes the Status
Abandoned	The segment has been abandoned in accordance with the latest version of CSA Standard Z662, *Oil and Gas Pipeline Systems.*	This status is assigned when the licensee reports the completion of the Abandonment procedures.
Cancelled - Expired	If a segment is not constructed within 24 months of the date that the licence/segment was issued, the licence will automatically be cancelled.	This status is assigned if 24 months pass from the date of licence issuance/segment approval date and the licensee has not submitted a construction notification.
Cancelled – Duplicate Licenses	A segment is licensed under multiple licences, and	This status is assigned when the licensee notifies ER that their segment is licensed under multiple licence numbers.

	therefore the duplicate segment is cancelled.	
Cancelled – Not Constructed	A segment was issued a licence, however, it was never constructed.	This status is assigned when the licensee submits a notification that they will no longer be constructing a previously licensed segment.
Cancelled – Non-Regulatory	A segment has been issued a licence, but has since been exempt from licensing as per Clause 3(2) of *The Pipelines Act, 1998*.	This status is assigned when the licensee notifies ER that their licensed segment is exempt from licensing.
Discontinued	The segment has been discontinued in accordance with the latest version of CSA Standard Z662, *Oil and Gas Pipeline Systems,* and is not transporting any substance.	This status is assigned when the licensee reports the completion of the Discontinuation procedures.
Ministry Suspended	The segment in subject has been suspended since the acquired Replacement/Re-Route approval is not valid and has been withdrawn by the system. In addition, ER can suspend a given segment due to non-compliance reasons.	During Construction Completion Reporting of Replacement/Re-Route application, the applicant declared that a new ROW has been acquired. ER can also assign the status of "Ministry Suspended" to a segment due to non-compliance reasons or other.
Operating	The segment is operating and is transporting its licensed substance.	This status is assigned upon the issuance of a Leave to Open for a segment.
Removed	The segment has been removed from the ground.	This status is assigned when the licensee submits a Construction Completion Report for a removal application.
To Be Constructed	The licensee has been issued a licence to construct a segment or add a new segment onto an existing licence.	This status is assigned upon the issuance of a licence for the proposed segment or approval to add a new segment onto an existing licence.
Under Construction - New	The segment is being constructed.	This status is assigned when the licensee submits a construction notification, pressure test notification, and/or a Construction Completion Report for a newly licensed segment.
Under Construction - Amendment	The segment is undergoing construction as a result of a Licence Amendment.	This status is assigned when the licensee submits a construction notification, pressure test notification, and/or a Construction Completion Report as a result of a Replacement, Re-Route, Liner

		Install, Liner Removal, Removal, and Reactivation.

2.3.2 Segment Level Data

The segment level attributes include line pipe specifications, segment details and specification changes.

2.3.2.1 Line Pipe Specification

The line pipe specifications for a segment provided by the applicant are listed in Table 2.4.

Table 2.4: Line Pipe Specifications

Data Element	Description
Material Type	A drop-down list of standard material types. Please refer to Section 2.5.3 for the list of standard material specifications.[1]
Material Standard	A drop-down list of standard material standard types. The standard options are filtered based on the selected Material value. If the desired material standard is not listed in the drop-down list of material standard, select "Other". Please refer to Section 2.5.3 for the list of standard material specifications.
Other Standard	If the material standard for the segment is not listed in the drop-down list of material standards, the applicant provides the material standard.
Material Grade	A pipe's designated strength in terms of pressure according to the American National Standards Institute (ANSI) classes (depends on manufacturer). The grade options are filtered based on the selected Material Type and Material Standard values. If the desired material grade is not listed in the drop-down list of material grades, select "Other". Please refer to Section 2.5.3 for the list of standard material specifications.
Other Grade	If the material grade for the segment is not listed in the drop-down list of material grades, the applicant provides the material grade.
Material Category	A drop-down list of standard material category types. The standard options are filtered based on the selected Material Type value (Steel). Please refer to Section 2.5.3 for the list of standard material specifications.
SMYS (MPa)	The pipe manufacturers specified minimum yield strength, in MPa, of the material that will be used to construct a segment. Based on the values entered into Material, Standard, Grade, and Category, the system auto-populates the SMYS for material combinations found within the standard pipe material table in IRIS. The applicant inputs the specified minimum yield strength for materials combinations not found within the standard pipe material table in IRIS. This value is rounded to the nearest whole number, therefore, displayed to 0 decimal places.
MPR (MPa)	The pipe manufacturers maximum pressure rating, with no service fluid factor applied determined at the selected design temperature or

	higher and selected design life of the pipeline or longer, in accordance with the methods specified in the applicable industry standard for the pipe category listed in CSA Z662.
Outside Diameter (mm)	The outside diameter of the segment displayed to 1 decimal place.
Wall Thickness (mm)	The thickness of the segment wall displayed to 1 decimal place.
Cover Depth (m)	The minimum depth that the segment is buried displayed to 1 decimal place.
Internal Protection	The type of protection applied to the inside of a segment, generally for corrosion mitigation. This data field applies to tight liners inside the segment. Please refer to Section 2.5.4 for the list of internal protection types. If the desired internal protection type is not listed in the drop-down list of internal protection types, select "Other".
Other Internal Protection	If the internal protection for the segment is not listed in the drop-down list of internal protection types, the applicant provides the internal protection.
External Protection	The type of protection applied to the outside of a segment, generally for corrosion mitigation. Please refer to Section 2.5.5 for the list of external protection types. If the desired external protection type is not listed in the drop-down list of external protection types, select "Other".
Other External Protection	If the external protection for the segment is not listed in the drop-down list of external protection types, the applicant provides the external protection.
CSA Factors	A list of CSA Factors used in the calculation of the calculated design pressure. The list of factors is dependent on the material type selected for the segment.
Calculated Design Pressure (kPa)	This is the system calculated design pressure for the segment's line pipe, based on CSA design pressure formulas and the necessary safety factors populated by the applicant. Displayed to 0 decimal places.[2]

[1] If there are multiple material types on a single segment, declare the lowest rated pipe as your line pipe material.

[2] If a non-standard pipe material value is selected, the system cannot calculate this value. In this case the applicant enters the calculated design pressure.

2.3.2.2 Free-Standing Liner Specification

The specifications for a free-standing liner inside a segment provided by the applicant are listed in Table 2.5.

Table 2.5: Free-Standing Liner Specifications

Data Element	Description
Liner Material Type	A drop-down list of standard material types. Please refer to Section 2.5.3 for the list of standard material specifications.
Liner Material Standard	A drop-down list of material standard types. The standard options are filtered based on the selected Material value. If the desired material standard is not listed in the drop-down list of material standard, select "Other". Please refer to Section 2.5.3 for the list of standard material specifications.
Other Standard	If the material standard for the liner is not listed in the drop-down list of material standards, the applicant provides the material standard.
Liner Material Grade	A pipe's designated strength in terms of pressure according to the American National Standards Institute (ANSI) classes (depends on manufacturer) that is based on the liner. The grade options are filtered based on the selected Material Type and Material Standard values. If the desired material grade is not listed in the drop-down list of material grades, select "Other". Please refer to Section 2.5.3 for the list of standard material specifications.
Other Grade	If the material grade for the liner is not listed in the drop-down list of material grades, the applicant provides the material grade.
SMYS (MPa)	The pipe manufacturers specified minimum yield strength, in MPa, of the material that will be used to construct the liner. Based on the values entered into Material, Standard, Grade, and Category, the system auto-populates the SMYS for material combinations found within the standard pipe material table in IRIS. The applicant inputs the specified minimum yield strength for materials combinations not found within the standard pipe material table in IRIS. This value is rounded to the nearest whole number, therefore, displayed to 0 decimal places.
MPR (MPa)	The pipe manufacturers maximum pressure rating, with no service fluid factor applied determined at the selected design temperature or higher and selected design life of the pipeline or longer, in accordance with the methods specified in the applicable industry standard for the pipe category listed in CSA Z662.
Outside Diameter (mm)	The outside diameter of the liner is displayed to 1 decimal place.
Wall Thickness (mm)	The thickness of the liner wall displayed to 1 decimal place.
CSA Factors	A list of CSA Factors used in the calculation of the calculated design pressure. The list of factors depends on the type of material selected for the liner.
Calculated Design Pressure (kPa)	This is the system calculated design pressure for the liner, based on CSA design pressure formulas and the necessary safety factors populated by the applicant. Displayed to 0 decimal places.[1]

[1] If a non-standard material type is selected, the system cannot derive this value. In this case the applicant enters the calculated design pressure.

2.3.2.3 Segment Details

The segment data attributes, other than line pipe specification, on a segment provided by the applicant are listed in Table 2.6.

Table 2.6: Segment Data Other than Line Pipe Specifications

Data Element	Description
Segment ID	The IRIS generated segment identifier that identifies the segment upon approval (e.g., SK PS 00000123).
Segment #	The IRIS generated segment number that identifies the segment under a licence in increasing order (e.g., 1, 2, etc.). The Segment Number is re-assigned if a segment is moved to a different licence through Licence Splitting process. Segment # will be used within the PrevSegNo column of the shapefile for Segment Data Amendment, Replacement, or Re-Route applications.
Industry Segment Ref #	An optional field where the applicant may provide industry segment reference number that identifies the segment based on internal industry standards/practice.
From LSD location	The legal subdivision derived by the system from the start coordinate of the shapefile provided for the segment.
To LSD location	The legal subdivision derived by the system from the end coordinate of the shapefile provided for the segment.
Shapefile Derived Length (km)	The length of the segment derived by the system from the segment shapefile. This may not be accurate if the segment elevation varies, since this is based on one-dimensional distance between two points. The value for shapefile derived length is displayed to one decimal place.
Segment Length (km)	The applicant can optionally provide a more accurate length of the segment which will override the Shapefile Derived Length. If a value is not provided by the applicant for segment length, the system will default on this value to the Shapefile Derived Length The segment length value should be within +/-5% tolerance of the shapefile derived length.
From Infrastructure Type	The Infrastructure Type at the start of the segment. Please refer to Section 2.5.2 for the list of Infrastructure Types.
To Infrastructure Type	The Infrastructure Type at the end of the segment. Please refer to Section 2.5.2 for the list of Infrastructure Types.
Segment Status	The status assigned to a segment based upon activities performed on the segment by a submission into IRIS. Please refer to Section 2.3.1 for the Segment Status description.
Segment Design Pressure (kPa)	The pressure that the segment is designed to support based upon the pressure limits (fittings, flanges) of the segment rounded to the nearest whole number, therefore, displayed to 0 decimal places. The Segment Design Pressure is less than or equal to the Calculated Design Pressure of a segment.

Anticipated MOP (kPa)	The maximum operating pressure the applicant expects to operate the segment at rounded to the nearest whole number, therefore, displayed to 0 decimal places.
Approved MOP (kPa)	The maximum operating pressure the applicant is approved to operate the current segment at after the Leave to Open has been issued. This value is rounded to the nearest whole number, therefore, displayed to 0 decimal places.
H_2S Partial Pressure (kPa)	The partial pressure of H_2S, or effective partial pressure for liquids without a gas phase, is displayed to 2 decimal places. For gas substances or liquids with a gas phase, this is a system calculated value. See Section 2.8 for details.
Requires Sour Service Design	A Yes/No, system derived flag, which indicates whether the segment should be designed to support sour service as per CSA Z662 standard based upon the H_2S concentration provided by the applicant. See Section 2.8 for details.
Designed for Sour Service	A Yes/No question to indicate whether the segment is/will be designed for sour service. The applicant may design a segment for sour service even if it does not require sour service.
Class Location	The CSA class location designation for the current segment which is an indicator of the population density in proximity to the proposed segment. This attribute represents the highest-class location along the extent of the segment as per the latest version of CSA Z662.
Bi-directional Flow	A Yes/No question, means a pipeline system capable of operating and transporting a substance in opposite directions.
Watercourse Type	A drop-down list of watercourses the segment crosses. If there are multiple watercourse types, select the watercourse of highest risk as defined in Section 2.5.6 of this document. Example: if there are two watercourses, one Large Permanent and one Small Permanent on a single segment, the expectation is that the applicant selects Large Permanent.[1]
Dry/Frozen watercourse at construction	A Yes/No question indicating if the segment is crossing or in proximity to dry or completely frozen Intermittent or Ephemeral watercourse at the time of construction. Only displays if the watercourse type is 'Intermittent' or 'Ephemeral'.
MOE changed ER standard setback	A drop-down list to enable indication of a Ministry of Environment override to the standards for setbacks or installation methods as outlined in Directive PNG034. This field is displayed if the Watercourse Type is not answered as N/A.
Meets overpressure requirement – ER	A Yes/No question indicating if the segment meets the overpressure protection requirements laid out in Directive PNG034.
Meets overpressure requirement – Z662	A Yes/No question indicating if the segment has overpressure protection in accordance with the latest version of CSA Z662.
Retroactive Licence	A Yes/No indicator derived by the system, to determine if the segment was licensed through Retroactive Licensing process.

[1] It is mandatory that the applicant provides a pipe specification change for each watercourse type on a given segment.

2.3.2.4 Specification Changes

The specification changes across a segment as a result of a crossing or Replacement provided by the applicant are listed in Table 2.7.

Table 2.7: Pipe Specification Change Data

Data Element	Description
Spec Change Reason	The type of specification change (or crossing): • RDX – Road crossing • WTX – Water crossing • RLX – Rail crossing • RPL – Spec change due to Replacement
Spec Change – Centre Coordinate	The geographic latitude and longitude coordinate that represent the approximate center of the specification change.
Spec Change Length (km)	The length of the piece of pipe that the specification change corresponds to.
Cased	A Yes/No question indicating if the pipe used for the crossing is placed within a carrier pipe.
HDD Bored	A Yes/No question indicating if the pipe used for the crossing will be horizontal directional drilled.
Material Type	The material type that is used for the pipe specification changes. Please refer to Section 2.5.3 for the list of standard material specifications.
Material Standard	The material standard that is used for the pipe specification changes. The standard options are filtered based on the selected Material value. If the desired material standard is not listed in the drop-down list of material standard, select "Other". Please refer to Section 2.5.3 for the list of standard material specifications.
Other Standard	If the material standard for the pipe specification changes not listed in the drop-down list of material standard, the applicant provides the material standard.
Material Grade	A pipe's designated strength in terms of pressure according to the American National Standards Institute (ANSI) classes (depends on the manufacturer) that is used for the pipe specification change. The grade options are filtered based on the selected Material Type and Material Standard values. If the desired material grade is not listed in the drop-down list of material grades, select "Other". Please refer to Section 2.5.3 for the list of standard material specifications.
Other Grade	If the material grade for the pipe specification change is not listed in the drop-down list of material grades, the applicant provides the material grade.
Material Category	The material category that is used for the pipe specification changes. The standard options are filtered based on the selected Material Type value (Steel). Please refer to Section 2.5.3 for the list of standard material specifications.
SMYS (MPa)	The pipe manufacturers specified minimum yield strength, in MPa, of the material that will be used for the pipe specification change. Based

	on the values entered into Material, Standard, Grade, and Category, the system auto-populates the SMYS for material combinations found within the standard pipe material table in IRIS. The applicant inputs the specified minimum yield strength for materials combinations not found within the standard pipe material table in IRIS. This value is rounded to the nearest whole number, therefore, displayed to 0 decimal places.
MPR (MPa)	The pipe manufacturers maximum pressure rating, with no service fluid factor applied determined at the selected design temperature or higher and selected design life of the pipeline or longer, in accordance with the methods specified in the applicable industry standard for the pipe category listed in CSA Z662.
Outside Diameter (mm)	The outside diameter of the pipe specification changes displayed to 1 decimal place.
Wall Thickness (mm)	The wall thickness of the pipe specification changes displayed to 1 decimal place.
Cover Depth (m)	The minimum depth that the pipe specification changes is buried displayed to 1 decimal place.
Internal Protection	The type of protection applied to the inside of the pipe specification changes, generally for corrosion mitigation. This data field applies to tight liners inside the segment. Please refer to Section 2.5.4 for the list of internal protection types. If the desired internal protection type is not listed in the drop-down list of internal protection types, select "Other".
Other Internal Protection	If the internal protection for the pipe specification change is not listed in the drop-down list of internal protection types, the applicant provides the internal protection.
External Protection	The type of protection applied to the outside of the pipe specification changes, generally for corrosion mitigation. Please refer to Section 2.5.5 for the list of external protection types. If the desired external protection type is not listed in the drop-down list of external protection types, select "Other".
Other External Protection	If the external protection for the pipe specification change is not listed in the drop-down list of external protection types, the applicant provides the external protection.
CSA Factors	A list of CSA Factors used in the calculation of the calculated design pressure. The list of factors is dependent on the material type selected for the segment.
Calculated Design Pressure (kPa)	This is the system calculated design pressure for the pipe specification change, based on CSA design pressure formulas and the necessary safety factors populated by the applicant. Displayed to 0 decimal places.[1]

[1] If a non-standard pipe material value is selected, the system cannot calculate this value. In this case the applicant enters the calculated design pressure.

2.3.2.5 Pressure Test Data

Table 2.8 summarizes the pressure test data provided for a pipeline segment.

Table 2.8: Pressure Test Data

Data Element	Description
Test Date	The start and end dates correspond to when the pressure test was conducted.
Concurrent Test	A Yes/No question indicating if both leak and strength test are done concurrently. Note: if the segment material type is polyethylene, the system will default to 'Yes'.
Test Duration (hours)	The duration of the strength test and/or leak test.
Minimum Test Pressure (kPa)	The lowest pressure value that was recorded/read by the recording instrument throughout the duration of either the strength test and the leak test, or the concurrent strength and leak test.
Maximum Test Pressure (kPa)	The highest-pressure value that was recorded/read by the recording instrument throughout the duration of either the strength test and the leak test, or the concurrent strength and leak test.
Test Section Length (km)	The length of the test section. If multiple segments were pressure tested continually, input the length of the specific segment. If the segment is pressure tested in one section, this length equals the length of the entire specific segment. If a single segment is pressure tested in multiple sections, each test section must be inputted separately, and the length of each test section adds up to be the total length of the segment.
Test section Exposed	A Yes/No question indicating if the segment that pressure is tested was fully or partially exposed.
Fluid Added (L)	The amount of water that was added during the pressure test of a polyethylene segment. This is conditionally required if the segment material type is 'polyethylene' and the test medium is 'water' or 'water with freezing point depressant'.
Test Medium	A drop-down list with fluid that was used to pressurize the segment(s) for the duration of the pressure test as per Section 2.5.8 of this document.

2.4 Submission

Upon submitting a completed application, risk rules are used to determine if the application will be routinely approved or classified as non-routine requiring further review by an ER subject matter expert (SME). If the system classifies the application as routine, an automatic approval is issued by the system upon submission. If the application is classified as non-routine upon submission, it requires further review by an ER SME to determine the proceeding steps.

Prior to submission, the applicant is informed of the reasons an application is going non-routine and the segments affected. The applicant can provide additional information/attachments to address the factors causing the non-routine to help expedite the ER SME review. During a review of a non-routine application an ER SME may require the submission of additional documentation.

2.4.1 Approval Status

The list of all statues associated with the lifecycle of a segment and approval are listed in Table 2.9.

Table 2.9: Lifecycle of Segment and Approval Status

Process	On Approval		After Field Work Notification – Construction		After Field Work Notification – Pressure Test		After Construction Completion	
	Segment Status	**Approval Status**	**Segment Status**	**Approval Status**	**Segment Status**	**Approval Status**	**Segment Status**	**Approval Status**
New Licence/New Segment	To be constructed	Authorized	Under Construction - New	In Progress	Under Construction - New	In Progress	Under Construction - New	Completed
Leave to Open	Operating	Authorized	-	-	-	-	-	-
Replacement/Re-Route	No change	Authorized	Under Construction - AMD	In Progress	Under Construction - AMD	In Progress	Under Construction - AMD	Completed
Liner Installation	No change	Authorized	Under Construction - AMD	In Progress	Under Construction - AMD	In Progress	Under Construction - AMD	Completed
Liner Removal	No change	Authorized	Under Construction - AMD	In Progress	-	In Progress	Under Construction - AMD	Completed
Removal	No change	Authorized	Under Construction - AMD	In Progress	-	In Progress	Removed	Completed
Reactivation	No change	Authorized	Under Construction - AMD	In Progress	Under Construction - AMD	In Progress	Under Construction - AMD	Completed (if no construction completion reported, LTO approval changes approval status to completed)
Discontinuation	-	-	Under Construction - AMD	In Progress	-	-	Discontinued	Completed
Routine Abandonment	-	-	No change	In Progress	-	-	Abandoned	Completed
Non-Routine Abandonment	No change	Authorized						
Repair	-	-	No change	In Progress	-	-	No change	Completed

The list statuses associated with all pipeline approvals and their corresponding definitions are listed in Table 2.10.

Table 2.10: Approval Status

Status	Description
Authorized	The licensee has been issued a licence for the segment(s).
In Progress	A Field Work Notification has been submitted through IRIS informing of the Construction or Pressure Test.
Completed	A Construction Completion Report has been submitted for approval.
Cancelled – BA	The licensee cancels an application approval before reporting a Construction Completion.
Cancelled - GOS	ER cancels an application approval before the applicant has reported a Construction Completion.

2.4.2 Submission Level Data

The data attributes associated with a given submission (e.g., New Licence, Liner Installation, etc.) are listed in Table 2.11.

Table 2.11: Submission Level Data

Data Element	Description
Industry Application Ref #	The applicant can optionally provide an industry application reference number that uniquely identifies the proposed submission based on internal industry standards/practice. The applicant can use this data element to search for a draft or completed application.
Contact Name	Full name of the applicant contact for whom ER can contact if they have questions regarding the application.
Email Address	Email address for the applicant contact.
Business Phone	Telephone number and extension number, if applicable, for the applicant contact.
Alternate Phone	Alternate telephone number and extension number, if applicable, for the applicant contact.
Do you have a CSA Z662 compliant Safety and Loss Management System in place and has it been implemented?	A Yes/No declaration that the operator has implemented a CSA Z662 compliant Safety and Loss Management System (SLMS). This question is only asked to an applicant if their BA has not answered it or had previously answered 'No'. Once the BA answers 'Yes', the system will not ask the question again for the BA.
Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components?	A Yes/No declaration if the segment(s) have been designed within the limits of the overall system in which it will operate. This includes all facilities and pipeline installations, which may operate at a lower pressure than the segment(s) is designed for.

Is any portion of the proposed segment(s) within 90m of the Right of Way of a provincial highway?[1]	A Yes/No declaration if any portion of the proposed segment(s) is within 90 meters of the right of way of a Provincial Highway, as defined in *The Highways and Transportations Act, 1997.* Answering 'Yes' to this question prompts the applicant to input the Highways approval number and results in a notification to the Ministry of Highways.
Is any portion of the proposed segment(s) within 30m of the Right of Way of a public highway?[1]	A Yes/No declaration if any portion of the proposed segment(s) is within 30m of the Right of Way of a Public Highway, as defined in *The Highways and Transportations Act, 1997*. Answering 'Yes' to this question prompts the applicant to input the Highways/RM approval number and results in a notification to the Ministry of Highways.
Does the proposed segment(s) cross or is within 30m of other pipeline(s), railways and/or utilities?	A Yes/No declaration if the proposed segment(s) crosses or is within 30m of other segment(s), railways and/or utilities.
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	A Yes/No or Yes/No/NA declaration indicating if the professional engineer registered in Saskatchewan has certified the engineering design used for this submission. For a flowline, a typical design standard certified by a professional engineer can be used.
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*?	A Yes/No declaration indicating if the relevant field work will be carried out in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems.*
Eligibility Statement	A Yes/No declaration for the eligibility of the submission as listed in Section 2.4.3 of this document. If you do not agree to the eligibility statement, the system will not allow the application or reporting to be submitted.

[1] Due to public consultation, the Ministry of Highways disclosure questions are no longer required within pipeline application processes. However, until the IRIS screens have been amended to fit this change, the Ministry of Highways disclosure questions will still appear.

2.4.3 Eligibility Statement

Table 2.12 outlines the eligibility statements that the applicant answers for various submissions.

Table 2.12: Eligibility Statements for Various Submissions

Application Process	Eligibility Statement
Construction Completion	N/A
Field Work Notification	
Licence Split	
Segment Split	
Abandonment	• Certify that this submission and any supporting documentation are complete, accurate and in accordance with relevant Saskatchewan pipeline legislation, regulation and directive; and, • Acknowledge that Government of Saskatchewan has the authority to enforce non-compliance if this submission is found to be inaccurate or incomplete.
Discontinuation	
Repair	
Leave to Open	• This submission and any supporting documentation are complete, accurate and in accordance with The Pipelines Act, 1998 and its rules. • Government of Saskatchewan has the authority to deny the submission after notifying the applicant of the deficiencies if this submission is found to be inaccurate or incomplete or does not meet the requirements of Saskatchewan legislation, regulations or directives. • Government of Saskatchewan has the authority to enforce non-compliance if it is found that this submission contains false, inaccurate, incomplete or misleading information.
Licence – Data Amendment	
Licence Transfer	
Liner Installation	
Liner Removal	
New Licence or New Segment on Existing Licence	
Reactivation	
Removal	
Repair	
Replacement	
Re-Route	
Retroactive Licence	
Segment – Data Amendment	
Segment Cancellation	

Licence Transfer	• Licensee is authorized to execute the transfer application on behalf of the transferor. • The transferor has disclosed any known issues/concerns with the licences being transferred to the transferee. • The transferor has/will provide the transferee with all documentation related to the licences being transferred. • This submission and any supporting documentation are complete, accurate and in accordance with The Pipelines Act, 1998 and its rules. • Government of Saskatchewan has the authority to deny the submission after notifying the applicant of the deficiencies if this submission is found to be inaccurate or incomplete or does not meet the requirements of Saskatchewan legislation, regulations or directives. • Government of Saskatchewan has the authority to enforce non-compliance if it is found that this submission contains false, inaccurate, incomplete or misleading information.

2.5 Standard Picklists

There are pre-programmed lists within various pipeline submissions. Where there is a picklist, the applicant must choose from the list. If the application chooses the option of 'other' within the list, they will have to manually input the value that is not found within the standard picklist.

2.5.1 Licence Substance and Substance Subtype

Table 2.13 lists the substances given in IRIS along with their associated abbreviations found within the Retroactive Licensing Template.

Table 2.13: Licence Substances

Code	Licence Substance	Substance Subtype
CO	Crude Oil	Blended Crude Oil
		Synthetic Crude Oil
FG	Fuel Gas	Fuel Gas
FW	Fresh Water	Surface Water
		Aquifer Water
HV	HVP Products	Butane
		Ethylene
		Propane
		Pentanes
		Liquid Ethane
LV	LVP Products	Condensate
		Diesel Fuel
		Gasoline

		Heating Oil
		Hydrocarbon Diluents
		Kerosene
		Solvents
ML	Miscellaneous Liquids	Liquid Ammonia
		Caustic
		Glycol
		Methanol
		Polymer
		Alkaline Surfactant Polymer
		Sulphur
		Liquid Carbon Dioxide
MG	Miscellaneous Gases	Air
		Ammonia - Gas
		Carbon Dioxide - Gas
		Ethane - Gas
		Helium
		Hydrogen
		Nitrogen
		Steam
NG	Natural Gas	-
OE	Oil Well Effluent	Multiphase Fluids
SG	Sour Natural Gas	-
SW	Salt water	Produced Water

2.5.2 Infrastructure Types

Table 2.14 lists the infrastructure types given in IRIS along with their associated abbreviations found within various pipeline templates.

Table 2.14: Infrastructure Types

Infrastructure Abbreviation	Infrastructure Type	Description
BE	Blind End	The end of a segment that is not physically attached to anything.
CS	Compressor Station	A facility that has service equipment intended to maintain or increase the flowing pressure of the gas that it receives from a well, battery, or gathering system prior to delivery to market or other disposition.
CT	Custom Treater	A facility that specializes in treating products (a mixture of oil and water called emulsion) for delivery to a segment.

GP	Gas Plant	A facility (including gas satellites) that processes raw gas to recover natural gas and natural gas liquids.
IF	Injection/Disposal Facility	A facility that is constructed and operated for the purpose of moving products into a reservoir/cavern. This infrastructure type is also applicable to some of the EOR facilities.
MB	Multi Well Battery	A facility where production from a **group of wells** is controlled. A battery may have equipment for separating, treating, cleaning and/or storing products.
MS	Meter Station	An installation where products are measured and analyzed before entering a gas/natural gas liquids segment.
PA	Pipeline Segment Connection Above Ground	As per the definition of a pipeline listed in *The Pipelines Act, 1998*. This includes above ground connections for pipeline or flowline segments (e.g., risers, headers, valves, etc.)
PB	Pipeline Segment Connection Below Ground	As per the definition of a pipeline listed in *The Pipelines Act, 1998*. This includes below ground connections for pipeline or flowline segments.
PU	Pump Station	An unlicensed facility used to maintain or increase the flowing pressure of a liquid substance.
RF	Refinery/Upgrader	A hydrocarbon distillation or upgrading facility.
SA	Oil Satellite	An arrangement of surface equipment (not including oil storage tanks) located some distance between several wells and the main battery that will receive the effluent, that separates and measures the production from each well, after which the fluids are recombined and piped to the main battery for further treatment. An oil satellite facility may include water handling equipment.
SB	Single Well Battery	A facility where production from **a well** is controlled. A battery may have equipment for separating, treating, cleaning and/or storing products.
TM	Tank Terminal	A facility used to receive liquids from trucks or segments for further disposition.
WL	Well	A well completed in one or more zones, whether a unique well identifier has been assigned by ER, e.g., swab wells, etc.
WP	Waste Plant	A facility where waste products are treated and disposed of in an environmentally safe and responsible fashion
WS	Surface Water Source	Used to report fresh water coming from a river or lake or other ground water source (slough, dugout, etc.)
WT	Fresh/Formation Water Source	Used to report formation water or fresh water coming from a licensed water facility well.

2.5.3 Segment Material Specification

For a full list of pipe materials along with associated standard, grade, and category, please refer to the Standard Pipe Material Table found under the Support Tab in IRIS. If the combination of material, type, and grade you need is not found within standard picklist, please use the 'other' option for material standard and grade. If the material type is not found in IRIS, please contact the ER Service Desk for further directions.

If the combination of material type, standard, grade, and category (if applicable) has an 'invalid indicator' associated with it, it means that that combination cannot be used for a 'New Licence' or 'New Segment' application, however, that combination will be allowed for a retroactive licence. This is because code is not retroactive, meaning, the combination may have been acceptable at the time of construction and therefore, will not cause a non-routine submission because of it.

Note: The material is applicable to the line pipe or pipe specification change. The material type used for the riser should not be included within the application.

2.5.4 Internal Protection

Table 2.15 lists the internal protection types given in IRIS.

Table 2.15: Internal Protection Types

Internal Protection	Description
Uncoated	Uncoated
HDPE	High Density Polyethylene (HDPE)
PVC	Polyvinyl Chloride
Thin Film	Thin Film
Concrete	Concrete
Epoxy	Epoxy
Polypropylene	Polypropylene
Other	Other

2.5.5 External Protection

Table 2.16 lists the external protection types given in IRIS.

Table 2.16: External Protection Types

External Protection	Description
Uncoated	Uncoated
Asphalt Enamel	Asphalt Enamel
Coal Tar	Coal Tar
Extruded Poly	Extruded Polyethylene
FBE	Fusion Bonded Epoxy
Dual Fusion Bonded Epoxy	Dual Fusion Bonded Epoxy

Poly Tape	Polyethylene Tape
Foam Insulation	Foam Insulation
Wax Coat	Wax Coat
Other	Other
Fusion Bonded Epoxy/ Extruded Poly	Fusion Bonded Epoxy/ Extruded Polyethylene

2.5.6 Watercourse Types

Table 2.17 lists the watercourse types given in IRIS.

Table 2.17: Watercourse Types

Watercourse Type[1]	Definition
Large Permanent	Please refer to Chapter 4 of Directive PNG034.
Small Permanent	
Not Applicable	The segment does not cross any watercourses.

[1] As a result of public consultation, it was determined that the watercourse types of ephemeral and intermittent do not have to be identified within pipeline application processes. However, until the IRIS screens have been amended to fit this change, the watercourse types of ephemeral and intermittent will still appear.

2.5.7 MOE changed ER standard setback

Table 2.18 lists how the Ministry of Environment could change ER's standard setback given in IRIS.

Table 2.18: MOE Changed ER's Standard Setback

MOE Changed ER Standard Setback[1]	Definition
No	Ministry of Environment approval did not change the ER standard setback as defined in Chapter 4 of Directive PNG034.
Eliminated	Ministry of Environment approval eliminated the setback requirement from the ER standard setback defined in Chapter 4 of Directive PNG034.
Increased	Ministry of Environment approval increased the setback requirement from the ER standard setback defined in Chapter 4 of Directive PNG034.
Decreased	Ministry of Environment approval decreased the setback requirement from the ER standard setback defined in Chapter 4 of Directive PNG034.

[1] As a result of public consultation, it was determined that the watercourse types of ephemeral and intermittent do not have to be identified within pipeline application processes which makes this question no longer application. However, until the IRIS screens have been amended to
fit this change, if the applicant chooses a watercourse type of ephemeral and intermittent, this question will still appear.

2.5.8 Test Medium

Table 2.19 lists the testing mediums given in IRIS.

Table 2.19: Pressure Test Mediums

Test Medium	Description
Water	Water
Fresh Water	Extracted from a natural water source (e.g., North Saskatchewan River)
Corrosion Inhibited Water	To reduce the corrosion potential of metal pipes, additives (e.g., chromates, nitrates, molybdates, or tungstate) are placed into the water to create a protective oxide film on the surface of the metal pipe.
Domestic Water	Water that is used/provided to households. It can be a stream, spring, well, etc.
Potable Water	Water that is safe for consumption
Water containing a freezing point depressant	Adding a non-volatile solute to water to decrease the freezing point (e.g., salt in water or alcohol in water)
Nitrogen	As per its normal scientific meaning.
Water/Methanol Mixture	Usually, 50/50 but could be a different proportion.
Methanol	Light, volatile, colorless, flammable liquid
Air	79% Nitrogen and 21% Oxygen –gaseous, non-flammable, non-toxic
Crude Oil	As defined in Section 1.2 of this document.
Unknown	The pressure test medium was not documented at the time of the pressure test, or pressure test records have been lost.
Non-Flammable & Non-Toxic Gas	Examples: carbon dioxide, compressed air and helium
Other Inert Gas	-

2.6 Watercourse Crossings

For details regarding watercourse crossings, please refer to Chapter 4 of Directive PNG034.

2.7 Geospatial Requirements

Please refer to Appendix 1 of Directive PNG034 for geospatial requirements.

The system will not accept geographic coordinates that are not within the defined tolerance of +/- 15m from the segment's polyline geometry.

- When a geographic coordinate is provided for a location, the system determines the shortest line distance between the provided geographic coordinate and the geospatial polyline of the segment. If the distance is within the defined threshold, the system should automatically find the coordinate of the point where the shortest line touches the segment polyline and use the "snapped" coordinate for the location using Geographic Coordinate Snapping Function.
- The system will "snap" the coordinate to be exactly on the polyline, if it is within the defined tolerance.

A shapefile is required for all

- New pipeline licences;
- Adding a new segment to an existing licence;
- Retroactive licence applications for pipelines;

For amendment applications, a shapefile is also required if any of the following are true:

- Segment Data Amendment if the application is for a change to the mapping of a pipeline installation;
- A Replacement where there will be new segments created; and,
- A Re-Route

2.8 Sour Service Design Requirements

IRIS uses the partial pressure of the transported substance to determine if the proposed segment needs to be designed for sour service. Partial pressure is determined by one of the following:

- For pipelines containing a gas phase, IRIS will calculate the H_2S partial pressure based upon the H_2S concentration provided by the applicant and the latest version of CSA Z662, Oil and Gas Pipeline Systems.
- For pipelines not containing a gas phase, the applicant inputs the effective partial pressure using the H_2S concentration and NACE MR0175.

2.8.1 Steel Material Type

IRIS uses ***Figure 23.1***, provided in Section 23.1,to determine whether the segment should be designed to meet sour service requirements.

2.8.2 Polyethylene Material Type

IRIS uses ***Figure 23.2***, provided in Section 23.1, to determine whether the segment should be designed to meet sour service requirements.

2.8.3 Reinforced Composite Material Type

IRIS uses Figure 23.3, provided in Section 23.1, to determine whether the segment should be designed to meet sour service requirements.

2.8.4 Pipe Material Limitations

For a full list of pipe limitations, please refer to the Pipe Material Limitations Table found under the Support tab in IRIS. If the 'Invalid Indicator' is checked for your combination of material type, standard, grade, substance, H_2S concentration, and/or MOP the application will go non-routine unless it is a Retroactive Licence.

3 New Licence

3.1 Scope

This section outlines how to obtain a New Pipeline Licence or add a New Segment onto an existing licence in Saskatchewan regulated under *The Pipelines Act, 1998.*

3.1.1 Prior to Applying

Prior to applying for a New Licence or to add a New Segment under an existing licence, reference Chapter 1.5 of Directive PNG034.

Prior to applying to add a New Segment under an existing licence, all licence level data must be populated for that licence. For a licence issued prior to July 15, 2019, or retroactive flowline licences, the H_2S concentration and gas phase indicator may not be populated prior to initiating the application to add a New Segment under an existing licence. Therefore, before the system will allow you to initiate the New Segment application, the applicant must submit a Licence Data Amendment to update missing data.

3.1.2 Post Approval

After approval has been issued for a New Licence or New Segment application the following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction-New' in accordance with Chapter 3.3 of Directive PNG034;
- Submit a Field Work Notification for 'Pressure Test – New' in accordance with Chapter 2.5.2 of Directive PNG034; and,
- Submit a Construction Completion Report once the pressure test has concluded and pipe has been tied in.

Once the Construction Completion Report has been submitted for the New Licence or adding a New Segment under then existing licence, the licensee can submit a Leave to Open application to obtain approval to place their segments into operation.

3.2 Submission Details

The applicant submits an application for construction of a segment(s) including all mandatory data and shapefile through IRIS for the proposed pipeline segment(s). For a New Licence application, multiple segments can be applied for in a single application if they have the same licence type, licenced substance, H_2S concentration, and gas phase. If you are adding a New Segment to an existing licence, the segment must have the same licence type, licenced substance, H_2S concentration, and gas phase as the licence it is being added to.

3.2.1 Data Attributes Associated with the New Licence or New Segment

Table 3.1 outlines the data attributes associated with a New Licence or New Segment application.

Table 3.1: Data Associated with the New Licence/New Segment Application

Data Element	Description	System Required Data
Licence Application Type	The applicant selects the specific type of application: • New Licence • Add New Segment to an existing licence [1]	Yes
Licence #	If the applicant is adding a new segment to an existing licence, the applicant provides the licence number owned by the same BA.	Conditional
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Licence Type	Please refer to Section 2.2.2 for description.	Yes
Industry Licence Ref #		No
Licence Name		No
Licence Substance		Yes
Substance Subtype		Conditional
Maximum H_2S Concentration (mol/kmol)		Yes
Gas Phase (Yes/No)		Yes
Project Details	The applicant may provide additional details pertaining to the proposed submission. Applicants can use this field to discuss how they will mitigate the risk associated with non-routine applications.	No
Segment Spatial Data	The applicant provides the shapefile consisting of the proposed segment(s) for the application. Line number, From LSD, To LSD and Computed Length are derived for the proposed segment(s) from the shapefile.	Yes
Industry Segment Ref #	Please refer to Section 2.3.2.3 for description.	No
Segment Length (km)		No

From Infrastructure Type		Yes
To Infrastructure Type		Yes
Anticipated MOP (kPa)		Yes
Calculated Design Pressure (kPa)		Yes
Segment Design Pressure (kPa)		Yes
H_2S Partial Pressure (kPa)		Yes
Designed for Sour Service		Yes
Class Location		Yes
Bi-directional Flow (Yes/No)		Yes
Watercourse Type		Yes
Dry/Frozen watercourse at Construction (Yes/No)		Yes
MOE changed ER standard setback		Yes
Meets overpressure requirement – ER (Yes/No)		Yes
Meets overpressure requirement – Z662 (Yes/No)	Please refer to Section 2.3.2.1 for description.	Yes
Material Type		Yes
Material Standard		Yes
Material Grade		Yes
Material Category		Yes
SMYS/MPR (MPa)		Yes
Outside Diameter (mm)		Yes
Wall Thickness (mm)		Yes
Cover Depth (m)		Yes
Internal Protection		Yes
External Protection		Yes

[1] The licence level data attributes cannot be edited if a new segment is being added to an existing licence.

3.2.2 Disclosure Questions

Table C.0.1 outlines the disclosure questions that will be populated for New Licence and New Segment applications.

3.2.3 Templates Associated with the New Licence/New Segment Application

There are two optional templates that can be used in both the New Licence application and Adding a New Segment onto an existing licence application:

- **Segment Data Template** – allows the applicant to easily upload multiple/all line pipe specifications at once rather than entering them individually within the application in IRIS.
- **Pipe Specification Change Template** - allows the applicant to input and upload the pipe specification change(s) for each segment, instead of manually entering each one separately.

These templates would be beneficial to use if you wanted to populate the information over time. The templates can be found on the Pipeline Licensing Webpage. For instructions on how to populate the Segment Data Template and/or Pipe Specification Change Template, please refer to Section 23.4 and Section 23.5 of this document respectively.

3.2.4 Shapefile for New Licence

One zipped shapefile will be submitted with the New Licence application that includes all segments associated with the application and the following file types:

- .SHP
- .SHX
- .DBF
- .PRJ

Other file types generated by the mapping application may be included in the file.

The shapefile for the New Licence will contain four Pipeline Segment Attributes, as seen in Table 3.2.

Table 3.2: New Licence/New Segment Shapefile Attributes

FID	GEOM	LineNo	PrevSegNo
System Defined Unique Identifier	Spatial Geometry (polyline/LineString)	A unique number to represent the line in the provided shapefile.	This will be left blank for a New Licence.

An example of a New Licence containing three segments is demonstrated in Table 3.3.

Table 3.3: New Licence Shapefile Example

FID	GEOM	LineNo	PrevSegNo
0	Polyline	1	
1	Polyline	2	
2	Polyline	3	

3.2.5 Shapefile for New Segment

One zipped shapefile will be submitted with the New Segment application that includes all net new segments being added to the licence and the following file types:

- .SHP
- .SHX
- .DBF
- .PRJ

Other file types generated by the mapping application may be included in the file.

Note: Do not include the segments that were already licenced within the shapefile.
The shapefile for the New Segment will contain the same four Pipeline Segment Attributes as seen in Table 3.2.

An example of adding two new segments onto an existing licence can be seen in Table 3.4.

Table 3.4: New Segment Shapefile Example

FID	GEOM	LineNo	PrevSegNo
0	Polyline	1	
1	Polyline	2	

3.2.6 Shapefile for Legacy Pipelines

Shapefiles for Legacy pipelines <u>must</u> be submitted through the Segment Data Amendment application. (See section 18 for more details). The Data attributes are the same as the shapefiles for new licence/New segment.

Under the PrevSegNo column the value must be populated to the existing segment number found in IRIS.

For example:
Segment 1 → PrevSegNo = 1,
Segment 2 → PrevSegNo = 2,
Segment 3 → PrevSegNo = 3,
etc.

3.3 Risk Rules and Associated Documents

Table 3.5 summarizes the risk rules used on the data provided within the application to determine when the New Licence and/or New Segment application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 3.5 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 3.5: Risk Rules and Associated Documents for New Licence/New Segment Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
-	-	• Survey
01a	Licence Type = Pipeline **AND** [Licence Substance = Miscellaneous Gases – CO_2 **OR** Miscellaneous Liquids – CO_2 **OR** Miscellaneous Liquids – HVP]	• Manufacturer Pipe Specification • Gas Analysis (recommended)
01b	Licence Type = Pipeline **AND** Licence Substance = Salt Water **AND** To Infrastructure Type ≠ Injection/Disposal Facility **AND** MOP > 2,000 kPa	• Manufacturer Pipe Specification
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Manufacturer Pipe Specification
05	Licence Type = Pipeline **AND** Sum of all Segment Lengths for the segments > 40 km	• None
06-07-08	Material Type has a material limitation	• Manufacturer Pipe Specification • Gas Analysis
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification • Design Pressure Calculation
10	Material Type = Two or more different material types used across proposed segment(s) under the same licence	• Manufacturer Pipe Specification

11	[Material Type = Steel **OR** Material Type = Stainless Steel **OR** Material Type = Aluminum] **AND** [External Protection = Uncoated **OR** Other]	• Manufacturer Pipe Specification • Engineering Assessment (recommended)
12	Cover Depth < 0.6 m	• Typical crossing profile(s) • Engineering Assessment (recommended)
17	Designed for Sour Service = No **AND** Requires Sour Service Design = Yes	• Gas Analysis • Design Pressure Calculation
18	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation
24	Meets overpressure requirement – ER = No	• Design Pressure Calculation • Manufacturer Pipe Specification • Engineering Assessment (recommended)
27	Material Type = Stainless Steel	• Manufacturer Pipe Specification • Design Pressure Calculation
27B	Material Type = Aluminum	• Manufacturer Pipe Specification • Design Pressure Calculation
70	Watercourse Type = Large Permanent	• HDD Feasibility Report[1] • Hydro-fracture Analysis[1] • HDD Crossing Profile[1] • Drilling Execution Plan[1] • Geotechnical Report[1]
71	Watercourse Type = Small Permanent	• HDD Feasibility Report[1] • Geotechnical Report[1] • Drilling Execution Plan[1] • HDD Crossing Profile[1]
73	Watercourse Type = Large Permanent **OR** Watercourse Type = Small Permanent **AND** HDD Boring = No	• None
74	Watercourse Type = Large Permanent **OR** Watercourse Type = Small Permanent **AND**	• None

	Deferred documents = Yes	
90B	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings Diagrams & Plans (recommended)
91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems?* = No	• Drawings Diagrams & Plans (recommended) • Engineering Assessment (recommended)

[1] In accordance with Chapter 4 of Directive PNG034, the documentation for watercourse crossings is not required at the time of submission but can be deferred and submitted prior to submission of the Field Work Notification for construction. This includes HDD Feasibility Report with Hydro-Fracture Analysis, HDD Feasibility Report, Geotechnical Report, Drilling Execution Plan, HDD Crossing Profile, and/or Pullback Detail.

Note: A Survey is required for all New Licence and adding a New Segment onto an existing licence applications as outlined in Chapter 5.4 of Directive PNG034. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

4 Retroactive Licence

4.1 Scope

This section outlines how to obtain a licence for an existing unlicensed designated pipeline in Saskatchewan regulated under *The Pipelines Act, 1998*.

If an operator finds a pipeline or flowline that has been constructed with a segment status of "Operating", "Abandoned" and "Discontinued" and has not yet been licensed, a licence is obtained through a Retroactive Licensing process. This includes segment(s) originally exempted from licensing requirements or never licensed due to non-compliance reasons. For more information regarding retroactive licensing, please refer to Chapter 7 of Directive PNG034.

4.1.1 Prior to Applying

Prior to applying for a retroactive licence, download and populate the Retroactive Licensing Template found on the Pipeline Licensing Webpage. For instructions on how to populate the Retroactive Licensing Template, please refer to Section 23.7 of this document.

If the retroactive licence is for a pipeline, a shapefile must be provided in addition to the Retroactive Licensing Template.

4.1.2 Post Approval

After approval has been issued, all licences found within the Retroactive Licensing Template will obtain their own Pipeline Licence Number (PL-00000123) and corresponding Segment ID(s) (SK PS 00000321). The status of each segment applied for through the Retroactive Licence

application will have the status that was assigned to it within the Retroactive Licensing Template submitted. If the segment had an 'operating status', a Leave to Open will automatically be issued with the licence, and therefore, can continue operation without further approval required.

When performing future field work, it is expected that the applicant will apply and obtain approval prior to initiating the work in the field, as well as follow appropriate post approval steps for all processes outlined in Chapter 5 of Directive PNG034.

4.2 Submission Details

Retroactive licensing is a specialized submission process that is different from other application and reporting processes. This submission type does not consist of any risk rules or disclosure questions and results in either all licences associated with the submission being approved or denied. If the submission is denied, IRIS will output a 'Results' file that outlines what needs to be fixed in the Retroactive Licensing Template and/or the Shapefile before you can resubmit. If the submission is approved, all licences found within the Retroactive Licensing Template will obtain their own Pipeline Licence Number (PL-00000123) and corresponding Segment ID(s) (SK PS 00000321).

The Retroactive Licensing Template is used to capture structured data to enable the system to convert the batch records into licence and Leave to Open approvals (if applicable). This template provides the opportunity to prepopulate data into a standardized format for the submission and licensing process. The template allows multiple licences with multiple segments to be submitted in a single template if the licence type is consistent across all licences populated in the template (e.g., all licences found within the template are for either pipelines or flowlines).

Upon submission of the Retroactive Licensing Template, the system will validate each application to ensure that the minimum requirements/data attributes are populated through a batch process that occurs every 15 minutes. Once the system validation is completed, an automated licence and Leave to Open (if applicable) will be issued through IRIS.

Note: Licence Numbers and Segment ID will not be issued immediately after submission. The system has a batch process that runs every 15 minutes; therefore, it can take up to 15 minutes to obtain your licence numbers and associated segment ID if the Retroactive Licensing Template and Shapefile were populated correctly.

4.2.1 Data Attributes Associated with Retroactive Pipelines

The amount of data required to obtain a retroactive pipeline licence depends on the segment status.

4.2.1.1 Licence Details

To obtain a Licence and a Leave to Open on an existing unlicensed pipeline segment, the applicant provides, at a minimum, the data attributes listed in Chapter 7 of Directive PNG034. Operators can continue to submit updated data as acquired over time through the Licence Data Amendment or Segment Data Amendment application to update the missing data.

Table 4.1 outlines the data attributes associated with a retroactive pipeline licence application with an **operating segment**.

Table 4.1: Data Associated with an Operating Retroactive Pipeline

Data Element	Description	System Required Data
Industry Licence Ref #	Please refer to Section 4.2.3 for description.	Yes
Segment Count		Yes
Licensee BA	Please refer to Section 2.2.2 for description.	Yes
Licence Type		Yes
Licence Substance		Yes
Substance Subtype		No
Maximum H_2S Concentration (mol/kmol)		Yes
Gas Phase (Yes/No)		Yes
Line Number	Please refer to Section 4.2.3 for description.	Yes
From Infrastructure Type	Please refer to Section 2.3.2.3 for description.	Yes
To Infrastructure Type		Yes
Segment Status		Yes
Segment Design Pressure (kPa)		Yes
MOP (kPa)		Yes
H_2S Partial Pressure (kPa)		Yes
Designed for Sour Service (Yes/No)		Yes
Class Location		Yes
Bi-directional Flow (Yes/No)		Yes
Watercourse Type		Yes
Meets overpressure requirement - ER		Yes
Meets overpressure requirement – Z662		Yes
Material Type	Please refer to Section 2.3.2.1 for description.	Yes
Material Standard		Yes
Material Grade		Yes
Material Category		Conditional[1]
SMYS/MPR (MPa)		Yes
Outside Diameter (mm)		Yes

Wall Thickness (mm)		Yes
Cover Depth (m)		Yes
Internal Protection		Yes
External Protection		Yes

[1] If Material Type = Steel or Stainless Steel

Table 4.2 outlines the data attributes associated with a retroactive pipeline licence application with a **discontinued or abandoned segment**:

Table 4.2: Data Associated with a Discontinued or Abandoned Retroactive Pipeline

Data Element	Description	System Required Data
Industry Licence Ref #	Please refer to Section 4.2.3 for description.	Yes
Segment Count		Yes
Licensee BA	Please refer to Section 2.2.2 for description.	Yes
Licence Type		Yes
Line Number	Please refer to Section 4.2.3 for description.	Yes
From Infrastructure Type	Please refer to Section 2.3.2.3 for description.	Yes
To Infrastructure Type		Yes
Segment Status		Yes
Class Location		Yes
Material Type	Please refer to Section 2.3.2.1 for description.	Yes

You can populate more than the mandatory data attributes for an operating, discontinued, or abandoned segment during the time of Retroactive Licensing. If you do not have more than the minimum data, you can continue to submit updated data as acquired over time through the Licence Data Amendment or Segment Data Amendment application.

4.2.1.2 LTO Details

When an operator retroactively licenses an operating segment, ER will grant a Leave to Open during the time of Retroactive Licensing. In order to obtain the automatic Leave to Open for operating segments, the maximum operating pressure must be provided within the Retroactive Licensing Template for each operating segment.

4.2.1.3 Shapefile for Retroactive Pipeline Licences

Along with the Retroactive Licensing Template, the applicant will create a **single shapefile that contains all segments found within the Retroactive Licensing Template**. The 'LineNo' field in the shapefile is identical to the 'Line Number' field from the Segments Tab of the Retroactive Licensing Template for that same segment.

The zipped shapefile will be submitted with the Retroactive Licensing application that includes all segments found within the Retroactive Licensing Template and the following file types:

- .SHP
- .SHX
- .DBF
- .PRJ

Other file types generated by the mapping application may be included in the file.

NOTE: The shapefile submission must only contain **one** zip archive file containing only **one** of each file type mentioned above.

The shapefile for the Retroactive Licence will contain four Pipeline Segment Attributes as seen in Table 4.3.

Table 4.3: Retroactive Pipeline Shapefile Attributes

FID	GEOM	LineNo	PrevSegNo
System Defined Unique Identifier	Spatial Geometry (polyline/LineString)	A unique number to represent the line in the provided shapefile.	This will be left blank for a Retroactive Licence.

An example of a shapefile for three retroactive segments can be seen in Table 4.4.

Table 4.4: Retroactive Pipeline Shapefile Example

FID	GEOM	LineNo	PrevSegNo
0	Polyline	1	
1	Polyline	2	
2	Polyline	3	

Its associated Segments Tab within the Retroactive Licensing Template can be seen in Figure 4.1.

Figure 4.1: Retroactive Licensing Template Example for a Pipeline

Industry Licence Reference #	Line Number	ndustry Segment Reference #	From Infrastructure Type	To Infrastructure Type
ER-001	1		IF	MB
ER-001	2		MB	SB
ER-002	3		SB	CS

From Figure 4.1, it can be seen that there are two licences that are being created within this template; ER-001 will have two segments and ER-002 has one segment. The Line Number within the Segments Tab of the Retroactive Licensing Template must be the same as the LineNo attribute within the shapefile, regardless of how many licences are being created.

4.2.2 Data Attributes Associated with Retroactive Flowlines

The amount of data required to obtain a retroactive flowline licence depends on the segment status.

4.2.2.1 Licence Details

To obtain a Licence and a Leave to Open on an existing unlicensed flowline segment, the applicant provides, at a minimum, the data outline in Chapter 7 of Directive PNG034. Operators can continue to submit updated data as acquired over time through the Licence Data Amendment or Segment Data Amendment application to update the missing data.

Table 4.5 outlines the data attributes associated with a retroactive flowline licence application with an **operating segment**.

Table 4.5: Data Associated with an Operating Retroactive Flowline

Data Element	Description	System Required Data
Industry Licence Ref #	Please refer to Section 4.2.3 for description.	Yes
Segment Count		Yes
Licensee BA	Please refer to Section 2.2.2 for description.	Yes
Licence Type		Yes
Licence Substance		Yes
Line Number	Please refer to Section 4.2.3 for description.	Yes
From Infrastructure Type	Please refer to Section 2.3.2.3 for description.	Yes
To Infrastructure Type		Yes
Segment Status		Yes
MOP (kPa)		Yes
From Latitude		Conditional[1]

To Latitude	The start and end latitude and longitude coordinates of the segment.	
From Longitude		
To Longitude		

Table 4.6 outlines the data attributes associated with a retroactive flowline licence application with a **discontinued or abandoned segment**.

Table 4.6: Data Attributes Associated with a Discontinued or Abandoned Retroactive Flowline

Data Element	Description	System Required Data
Industry Licence Ref #	Please refer to Section 4.2.3 for description.	Yes
Segment Count		Yes
Licensee BA	Please refer to Section 2.2.2 for description.	Yes
Licence Type		Yes
Line Number	Please refer to Section 4.2.3 for description.	Yes
From Infrastructure Type	Please refer to Section 2.3.2.3 for description.	Yes
To Infrastructure Type		Yes
Segment Status		Yes
From Latitude	The start and end latitude and longitude coordinates of the segment.	Conditional[1]
To Latitude		
From Longitude		
To Longitude		

[1] A shapefile is not required for a Retroactive Flowline application; however, the applicant can provide one if desired. If the applicant does not provide a shapefile for the flowline segment(s), the from/to latitude and from/to longitudinal locations for the flowline segment(s) are populated within the Retroactive Licensing Template. If a shapefile is provided, the from/to latitude and from/to longitudinal locations are not required within the Retroactive Licensing Template.

4.2.2.2 LTO Details

When an operator retroactively licenses an operating segment, ER will grant a Leave to Open during the time of Retroactive Licensing. In order to obtain the automatic Leave to Open for operating segments, the maximum operating pressure must be provided within the Retroactive Licensing Template for each operating segment.

4.2.2.3 Shapefile for a Retroactive Flowline Licences

The submission of a shapefile is not mandatory for flowline segments; however, the applicant can submit one if desired. If the applicant does not provide a shapefile for the flowline segment(s), the system will create geometry on behalf of operator for the respective segment(s). For the system to create a polyline system for that flowline segment(s), the “From/To Latitude” and “From/To Longitude” coordinates for the locations of the flowline segment(s) are submitted within the Retroactive Licensing Template.

If the applicant chooses to create a shapefile along with the Retroactive Licensing Template:

- A **single shapefile will be created that contains at least one segment found within the Retroactive Licensing Template**; and,
- The 'LineNo' field in the shapefile for every segment is identical to the 'Line Number' field in the Retroactive Licensing template for that same segment.

Please note that the applicant can submit a shapefile which only contains some of the segments founds within the Retroactive Licensing Template.
If the shapefile is not for all segments found within the Retroactive Licensing Template, the from/to latitude and from/to longitude coordinates must be populated within the Retroactive Licensing Template for those segments not included within the shapefile.

The zipped shapefile will be submitted through the Retroactive Licensing application and will may include some or all segments found within the Retroactive Licensing Template along with the following file types:

- .SHP
- .SHX
- .DBF
- .PRJ

Other file types generated by the mapping application may be included in the file.

The shapefile for the Retroactive Licence will contain four Pipeline Segment Attributes as seen in Table 4.7.

Table 4.7: Retroactive Flowline Shapefile Attributes

FID	GEOM	LineNo	PrevSegNo
System Defined Unique Identifier	Spatial Geometry (polyline/LineString)	A unique number to represent the line in the provided shapefile.	This will be left blank for a Retroactive Licence.

An example of a shapefile for one segment for a retroactive flowline can be seen in Table 4.8.

Table 4.8: Retroactive Flowline Shapefile Example

FID	GEOM	LineNo	PrevSegNo
0	Polyline	1	

Its associated Segments Tab within the Retroactive Licensing Template can be seen in Figure 4.2.

Figure 4.2: Retroactive Licensing Template Example for a Flowline

Industry Licence Reference #	Line Number	ndustry Segment Reference #	From Infrastructure Type	To Infrastructure Type	Operational Status
ER-001	1		MB	IF	OPERATING
ER-001	2		MB	IF	DISCONTINUED
ER-002	3		MB	IF	ABANDONED

From Figure 4.2 It can be seen that there are two licences that are being created within this template; ER-001 will have two segments and ER-002 has one segment. The Line Number within the Segments Tab of the Retroactive Licensing Template must be the same as the LineNo attribute within the shapefile, regardless of how many licences are being created. For the segments that are not found within the shapefile (Segments 2 and 3), the from/to Latitude and from/to Longitude Coordinates must be populated within the Retroactive Licensing Template.

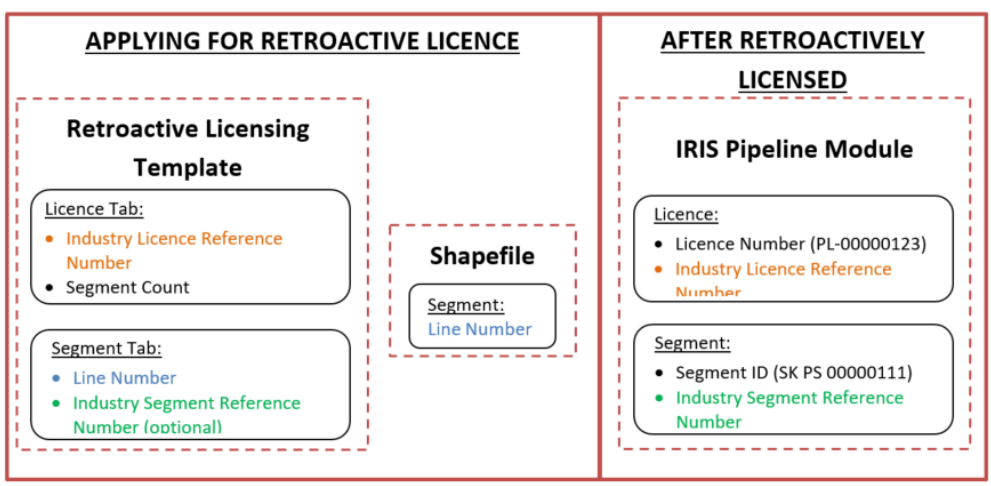
4.2.3 Disclosure Questions

There are no disclosure questions related to Retroactive Licensing applications.

4.2.4 Retroactive Licensing Terminology

Figure 4.3 outlines the use, capture and storage of specific fields captured within and after the completion of the Retroactive Licensing application process.

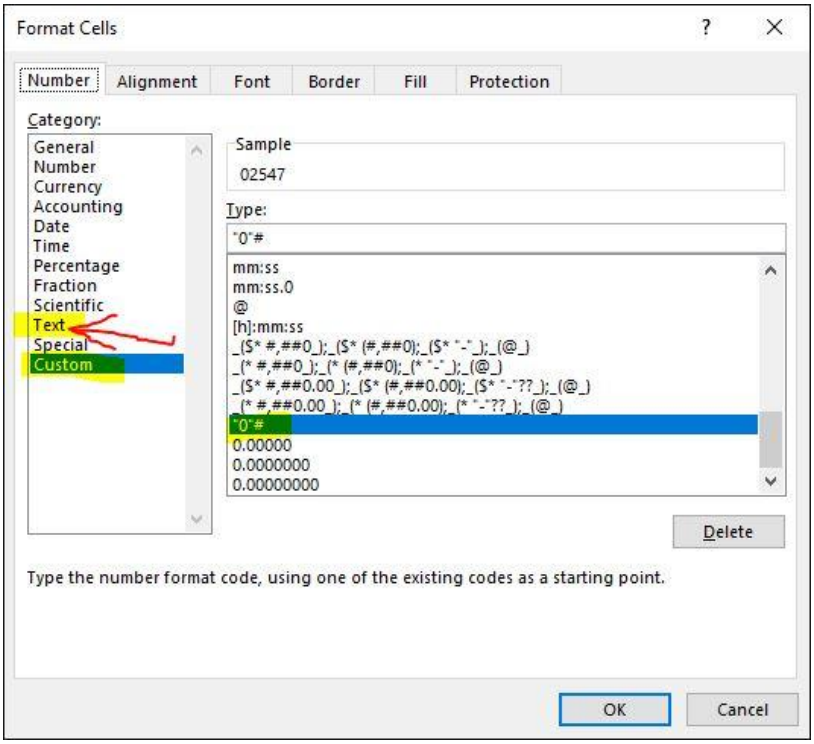
Figure 4.3: Use, Capture, and Storage of Fields Associated with the Retroactive Licensing Application



//

For example, if your BA (Business Associate) Code is 01234, and the code entered the Retroactive Template is 1234, this formatting issue will cause IRIS to malfunction and not able to generate coordinate,

In the spreadsheet that submits to IRIS, the format of Cell A2 to A7 is set to Custom-"0"#; However, IRIS expects Text format.



//

For the system to accurately upload the bulk submission, it is essential that the licence and its associated segments are correctly linked. This link is created by entering a unique Industry Licence Reference Number for each licence on the Licences tab and then entering this number on the Segments tab for each associated segment. If these numbers are not properly identified, the upload will fail meaning that the wrong segments will be associated to the wrong licence. For more information on how to populate the Retroactive Licensing Template, please refer to Section 23.7 of this document. Definitions and explanations of Retroactive Licensing Terminology can be found below.

Industry Licence Reference Number – an alphanumeric reference number (maximum of 150 characters) that is unique to your organization or BA and is assigned to a licence on the Licence

Tab of the Retroactive Licensing Template. This number is repeated for each individual associated segment on the Segment Tab.

- The purpose of this field is to associate the licence to its segments for the system to carry out the successful bulk upload of the template. It is required for Retroactive Licensing and is unique to every licence.
- After the successful upload of the template into IRIS, this field will be stored and displayed at the licence level. You may use this identifier (in addition to the licence number generated by IRIS) to search for the licence in IRIS.

Figure 4.4: Industry Licence Reference Number

Industry Licence Reference #	Segment Count
1325 Regina	3
The Lion King	2

Segment Count – an integer field that identifies the number of segments for an individual licence number in the template. The number of times the Industry Licence Reference Number is referenced in the Segments Tab is equal to the Segment Count on the Licence Tab of the Retroactive Licensing Template.

- The Segment Count can only use numeric characters that represent whole numbers (no decimal places or fractions) up to a value of 2,147,483,647.
- After the successful upload of the template into IRIS, the system will not store and display this field at the licence or segment level.

Figure 4.5: Segment Count

Industry Licence Reference #	Segment Count
1325 Regina	3
The Lion King	2

Line Number – an integer field that is operator generated and assigned to a segment within the Shapefile AND on the Segment Tab of the Retroactive Licensing Template. The "LineNo" in the shapefile for each segment is the same as the 'Line Number' in the Segments Tab of the Retroactive Licensing Template for that same segment.

- The purpose of this field is to associate the segments in the template to their geometries in the shapefile for the system to carry out the bulk upload of retroactive data. Therefore, the **value chosen is unique to every segment found within the Retroactive Licensing Template** so that the system does not duplicate geometries for the segment.
- The Line Number can only use numeric characters that represent whole numbers (no decimal places or fractions) up to a value of 2,147,483,647.

- After the successful upload of the template into IRIS, the system will not store and display this field at the licence or segment level.

Figure 4.6: Line Number

Industry Licence Reference #	Line Number	Industry Segment Reference #
1325 Regina	1	99645
1325 Regina	2	85236
1325 Regina	3	456
The Lion King	4	853 Tigers
The Lion King	5	853 Tigers

Industry Segment Reference Number – a text field (maximum of 150 characters) that is unique to your organization or BA and is optionally assigned to a segment on the Segments Tab of the Retroactive Licensing Template. The purpose of this field is to provide applicants with the ability to reference a segment using their internal reference system.

- After the successful upload of the template into IRIS, this field will be stored and displayed in the system at the segment level. The applicant, upon successful licensing, may use this identifier (in addition to the Segment ID generated by IRIS) to search or identify this segment.

Figure 4.7: Industry Segment Reference Number

Industry Licence Reference #	Line Number	Industry Segment Reference #
1325 Regina	1	99645
1325 Regina	2	85236
1325 Regina	3	456
The Lion King	4	853 Tigers
The Lion King	5	853 Tigers

Licence Number – system generated unique 8-digit licence number to identify the licences once retroactive licensing is successfully completed in IRIS (e.g., PL-00000123).

Segment ID – system generated unique 8-digit segment identifier to identify the segment once retroactive licensing is successfully completed in IRIS (e.g., SK PS 00000001).

4.3 Risk Rules and Associated Documents

There are no risk rules that are run within the Retroactive Licensing application process. Therefore, if the Retroactive Licensing Template and Shapefile (if applicable) are populated correctly, the system will atomically issue a Licence and Leave to Open (if the segment is operating) after the batch is run in IRIS (every 15 minutes).

The Retroactive Licensing application does not allow attachments to be included at the time of submission. Chapter 7.4 of Directive PNG034 requires a Survey to be submitted within 30 days of a licence being issued through IRIS for a Retroactive Pipeline. To submit the Survey for each Retroactive Pipeline Licence:

- Navigate to the Attachments Tab of the Licence Detail screen (Quick Search > Pipeline/Flowline Licence > PL-00000123 > Search);
- Click on the 'Attachments' tab;
- Click 'Add Industry Pipelines Documents';
- Upload the corresponding Survey; and,
- Choose the document type of 'Survey' from the picklist.

5 Leave to Open

5.1 Scope

This section outlines how to obtain approval to operate your pipeline segments in Saskatchewan regulated under *The Pipelines Act, 1998* which includes:

- New Leave to Open;
- Amendment to Increase the Maximum Operating Pressure on an existing LTO Approval; or,
- Amendment to Decrease the Maximum Operating Pressure on an existing LTO Approval.

The approvals that result in the submission of a Leave to Open application upon the completion of a successful pressure test(s) on a segment are:

- Newly constructed segment(s);
- Replacement;
- Re-Route;
- Liner Installation; and,
- Reactivation (if applicable)

5.1.1 Prior to Applying

Prior to applying to operate your segment with a status of 'Under Construction – New' or 'Under Construction – Amendment' through the '**New Leave to Open'**:

- Submit a Field Work Notification for 'Construction' in accordance with Chapter 3.3 of Directive PNG034;
- Submit a Field Work Notification for 'Pressure Test' in accordance with Chapter 2.5.2 of Directive PNG034; and,
- Submit a Construction Completion Report once the pressure test had concluded and pipe has been tied in.

A 'New Leave to Open' application cannot be initiated for segments in which there are draft applications, outstanding approvals, or a Construction Completion Report has not been submitted for approval relating to:

- New Licence;
- New Segment;
- Liner Installation;
- Liner Removal;
- Reactivation;
- Removal;
- Replacement; and,
- Re-Route

Prior to applying to **increase or decrease the maximum operating pressure** of a segment with the Segment Design Pressure must be populated for that segment and the segments status must be 'Operating'. Therefore, if the segment design pressure is 'null', before the system will allow you to initiate the Leave to Open application to increase or decrease the maximum operating pressure, the applicant must submit a Segment Data Amendment to update missing data (i.e. Segment Design Pressure).

5.1.2 Post Approval

After approval has been issued relating to the New Leave to Open application, or application to increase/decrease the maximum operating pressure, the licensee has the approval to operate the corresponding segments in the field up to the maximum operating pressure applied for and approved within the Leave to Open application.

5.2 Submission Details

Upon the successful completion of a pressure test and submission of a Construction Completion Report the licensee is eligible to submit a Leave to Open application. A single Leave to Open application can be for multiple segments under the same licence, as long as a Construction Completion Report has been submitted for each segment intended for the submission.

Leave to Open applications are required for both pipelines and flowlines, however, pressure test data does not need to be submitted within the Leave to Open application for flowlines, but it is required for pipelines.

5.2.1 Data Attributes Associated with the Leave to Open Application for a Pipeline

Table 5.1 outlines the data attributes associated with a Leave to Open application for a pipeline segment.

Table 5.1: Data Associated with a Leave to Open Application for Pipeline Segment

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
What are you applying for	The applicant selects the specific type of application: • A new Leave to Open • Amendment to decrease MOP on an existing LTO approval • Amendment to increase MOP on an existing LTO approval	Yes
MOP (kPa)	Please refer to Section 2.3.2.3 for description.	Yes
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Test Date	Please refer to Section 2.5.7 for description.	Yes
Concurrent Test (Yes/No)		Yes
Test Duration (hr/min)		Yes
Minimum Test Pressure (kPa)		Yes
Maximum Test Pressure (kPa)		Yes
Test Section Length (km)		Yes
Test Section Exposed (Yes/No)		Yes
Fluid Added (L)		Conditional[1]
Test Medium		Yes

[1] If the material type is polyethylene, the applicant will have to populate the amount of fluid added. If the material type is not polyethylene, the data attribute will not appear on the screen.

Pressure test data is linked at the segment level. There are various scenarios for which you can report a pressure test on a segment, including:

- If multiple segments are pressure tested continuously within the same test, each segment will have its own pressure test data inputted into the Leave to Open application. The test date, concurrent test, test duration, minimum/maximum test pressure, test section exposed, fluid added (if applicable), and test medium will be identical for each segment.

However, you will input the length of that segment for which you are populating the pressure test for.
For example, if you test segments 1 and 2 together continuously the test section length for segment 1 will be reported as the total length of segment 1 not of segments 1 and 2 together).

- If a pipeline segment is pressure tested in multiple sections, then pressure test data is provided by the applicant for each test section (i.e., a single segment can have multiple pressure tests linked to it). The total length of each of the pressure tests for that segment must add to the total length of the segment.
  For example, segment 1 is 10 km long and was pressure tested in 3 sections (1 km, 3 km, and 6 km). The first pressure test data provided is for the 1 km section (e.g., the test section length is 1 km), the second pressure test data provided is for the 3 km section (e.g., the test section length is 3 km), and the final pressure test data provided is for the 6 km section (e.g., the test section length is 6 km). Once all three pressure tests are linked to Segment 1 the total length of Segment 1 is tested.

5.2.2 Data Attributes Associated with the Leave to Open Application for a Flowline

Table 5.2 outlines the data attributes associated with a Leave to Open application for a flowline segment.

Table 5.2: Data Associated with a Leave to Open Application for a Flowline Segment

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
What are you applying for	The applicant selects the specific type of application: • A new Leave to Open • Amendment to decrease MOP on an existing LTO • Amendment to increase MOP on an existing LTO	Yes
MOP (kPa)	Please refer to Section 2.3.2.3 for description.	Yes
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		
Test Date	Please refer to Section 2.5.7 for description.	No
Concurrent Test (Yes/No)		No
Test Duration (hr/min)		No
Minimum Test Pressure (kPa)		No
Maximum Test Pressure (kPa)		No

Test Section Length (km)		No
Test section Exposed (Yes/No)		No
Fluid Added (L)		No
Test Medium		No

In accordance with Chapter 2.5.1 of Directive PNG034, pressure test data does not have to be submitted with the Leave to Open application to receive a Leave to Open approval for a flowline segment. If desired, the applicant can input and link pressure test data for flowline segments.

5.2.3 Disclosure Questions

There are no disclosure questions related to Leave to Open applications.

5.3 Risk Rules and Associated Documents

Table 5.3 summarizes the rules that are run used for data provided within the Leave to Open application and data associated with the segment(s) found within the application. The risk rules will determine when the Leave to Open application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 5.3 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 5.3: Risk Rules and Associated Documentation for Leave to Open Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis (recommended)
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Survey(s) (recommended)
06-07-08	Material Type has a material limitation	• Manufacturer Pipe Specification (recommended)
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification (recommended)
55	Pressure Test Date > 12 months from the LTO application submission date	• Calibration Records (recommended) • Pressure Test Chart(s) (recommended) • Pressure Test Log(s) (recommended)

		• Pressure Volume Plot (recommended)
56	Pressure Test Record is Flagged as Invalid based on Pressure Test Validation which includes: The amount of fluid added during a pressure test is > the allowable amount **AND/OR** % Deviation > 2 $\%\ Deviation = \left\lvert \frac{Max.Test\ Pressure - Min.Test\ Pressure}{Avg.Test\ Pressure} \right\rvert \times 100$ $Avg.Test\ Pressure = \frac{Max.Test\ Pressure + Min.Test\ Pressure}{2}$ **AND/OR** Pressure test duration is not in accordance with CSA Z662 **AND/OR** Minimum/Maximum test pressure is not in accordance with CSA Z662	• Calibration Records (recommended) • Pressure Test Chart(s) (recommended) • Pressure Test Log(s) (recommended) • Pressure Volume Plot (recommended)
57	New MOP > Lowest Pressure Test Approved MOP	• Design Pressure Calculation (recommended) • Calibration Records (recommended) • Pressure Test Chart(s) (recommended) • Pressure Test Log(s) (recommended) • Pressure Volume Plot (recommended)
58	[Segment Status = To be constructed **OR** Under Construction – New **OR** Under Construction – AMD **AND** [Last approval ≠ Replacement **OR** Re-Route]] **AND** Sum of Test Section Lengths > 5% of Segment Length for the segment	• Pressure Test Chart(s) (recommended) • Pressure Test Log(s) (recommended) • Pressure Volume Plot (recommended)

Note: There are no mandatory attachments for a Leave to Open application at the time of submission. If the Leave to Open application goes non-routine for further review by an ER SME, they may require additional documents to be submitted before they are able to complete their review. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

6 Repair

6.1 Scope

This section outlines how to report a Repair associated with a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998.* Please refer to Chapter 1.6 of Directive PNG034 for the definition of Repair and Chapter 5.3 of Directive PNG034 to determine when reporting a repair is required.

6.1.1 Prior to Reporting

A Field Work Notification for 'Repair' is not required prior to initiating the work in the field. It is encouraged that the licensee submits a Field Work Notification with the type 'Repair' at least two business days prior to the commencement of the Repair work associated with:

- The Repair being the result of an incident reported in accordance with Directive PNG014;
- Repair is the result of pipeline exposure due to erosion;
- Repair is the result of ground movement; and/or;
- The Repair is a located in a class location of 3 or 4 as defined in CSA Z662;
- Repair is within the setback of permanent watercourse specified in chapter 4;
- The repair does not use a permanent sleeve and the damaged pipe is not removed.

6.1.2 Post Reporting

After the Repair has been reported, no further action is required unless at least one of following scenarios hold true:

- The Repair Type = Temporary
  - There will be an obligation imposed on the segment to either update the Repair Type to 'Permanent Repair' or request for an extension within 12 months.
- The Repair was not carried out entirely within the existing right of way
  - There will be an obligation imposed on the segment to submit a new shapefile for the segment through the Segment Data Amendment application.

Please note that the segment status will not change as a result of reporting a Repair.

6.2 Submission Details

Each individual reporting of a Repair can only be for a single Repair. If there are multiple Repairs to be reported, multiple Repair need to be submitted.

6.2.1 Data Attributes Associated with the Repair Report

Table 6.1 outlines the data attributes associated with the Repair report.

Table 6.1: Data Associated with Repair Reporting

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Repair Date	The date when the Repair was completed in the field. This will be defaulted from notification date if there was a Field Work Notification sent for a Repair.	Yes
Repair Type	The type for Repair is selected from the pre-populated drop-down list below: • Temporary Sleeve • Permanent Sleeve • Cut out • Other	Yes
Other Repair Type	If the applicant selects "Other" for repair type, the applicant provides the repair type.	Conditional
Regulatory Requirement for Reporting	The regulatory requirement for reporting of repair is selected from the pre-populated drop-down list below: • Incident • Exposure due to erosion • Ground Movement • Class location > 1 • Within the setback of a permanent watercourse as defined in Chapter 4 of Directive PNG034 • The repair does not use a permanent sleeve and the damaged pipe is not removed. • Temporary Repair • Voluntary	Yes
Repair Reason	The regulatory requirement for reporting of repair is selected from the pre-populated drop-down list below: • Third Party Contact • Dent • Exposure	No

	• External Corrosion • Ground Movement • Incident • Internal Corrosion • Other	
Other Repair Reason	If the applicant selects "Other" for repair reason, the applicant provides the repair reason.	Conditional
Repair Length (m)	The length of the repair section of segment.[1]	Yes
In-Kind Repair? (Yes/No)	A Yes/No declaration if the repair section is in-kind. An in-kind repair is any change in segment material that results in the integrity and strength of the segment being the same or greater of the same material type.	Yes
Was the repair carried out entirely within the existing Right of Way? (Yes/No)	A Yes/No declaration if the repair section is within the existing Right of Way (ROW).[2]	Yes
Repair Center Location	The geographic coordinates (latitude, longitude) represent the approximate center of the repair on the segment.	Yes
Specification Change	The specification change data as described in Section 2.3.2.4 of this document.	Conditional[3]

[1] If the length of repair section > 100m, the applicant submits a Replacement application instead of a reporting the Repair before carrying out the work in the field.

[2] If the repair section is outside the existing ROW, the applicant submits a Re-Route application instead reporting the Repair before carrying out the work in the field.

[3] The system requires a specification change to be included if the Repair is not in-kind. If the Repair is in-kind, the applicant can optionally provide specifications for the repair section.

6.2.2 Disclosure Questions

There are no disclosure questions related to the Repair reporting process.

6.3 Validation Rules and Associated Documents

There are no risk rules that are run for Repair reporting; however, validation rules are used. If the Repair was not carried out in accordance with the latest version of CSA Z662, the system will not allow the applicant to submit the Repair unless a document labelled 'Repair Report' is attached with the submission.

7 Replacement

7.1 Scope

This section outlines how to obtain approval to replace a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998.* Please refer to Chapter 1.6 of Directive PNG034 for the definition of Replacement.

7.1.1 Prior to Applying

Prior to applying for a Replacement:

- All licence level data must be populated for the licence involved in the Replacement application. For a licence issued prior to July 15, 2019, or retroactive flowline licences, the H_2S concentration and gas phase indicator may not be populated prior to initiating the Replacement application. Therefore, before the system will allow you to initiate the Replacement application, the applicant must submit a Licence Data Amendment to update missing data.
- There cannot be any outstanding approvals or draft applications related to any segments under the licence.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

7.1.2 Post Approval

After approval has been issued for the Replacement application the following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction-Replacement' in accordance with Chapter 3.3 of Directive PNG034;
- Submit a Field Work Notification for 'Pressure Test – Replacement' in accordance with Chapter 2.5.2 of Directive PNG034; and,
- Submit a Construction Completion Report once the pressure test has concluded and pipe has been tied in.

Once the Construction Completion Report has been submitted, the replacement data and/or newly created segment(s) will be written to the Registry and can be seen in the Licence Details screen in IRIS. In addition, the licensee can submit a Leave to Open application to obtain approval to place their segments affected by the Replacement application into operation.

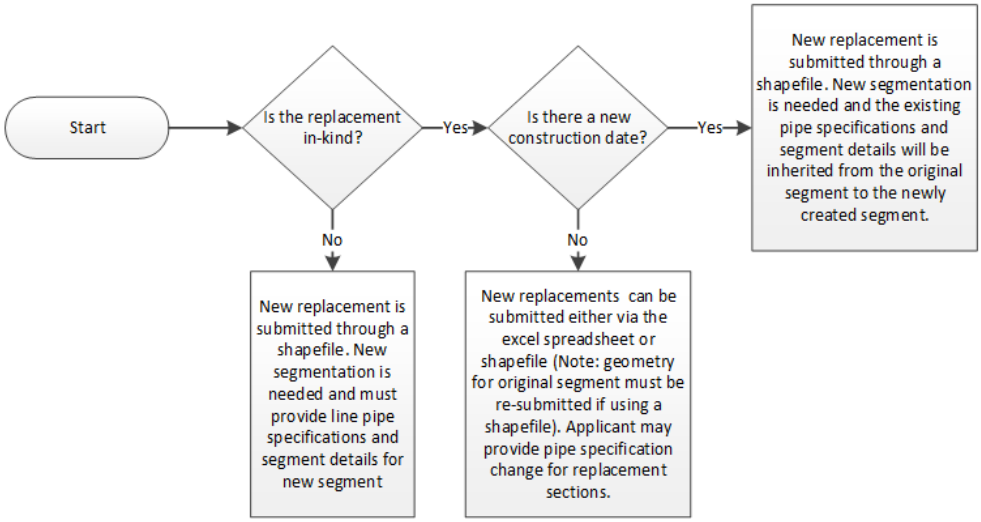
7.2 Approach to the Application

Depending on the application and the data submitted, a Replacement can occur either in conjunction with or without the splitting of the segment. Segment splitting occurs if:

- The replaced section is NOT in-kind; and/or
- The applicant wants to record a new construction date on the replaced section.

The applicant can use the Replacement Template OR a shapefile to carry out the Replacement application. Figure 7.1 summarizes the approaches available for a Replacement application.

Figure 7.1 Approach to a Replacement Application



Note: The following should be taken into consideration when preparing a Replacement application:

- The system does not allow for a Replacement Template and a shapefile to be submitted in a single Replacement application.
- A single replacement section (start coordinate to end coordinate) cannot span multiple segments simultaneously.
- Where a Replacement spans more than one segment, separate replacement sections are submitted to correspond to its appropriate segments in IRIS (e.g., a replacement section applies to a single segment at a time).

Please review Section 23.2 of this document for Replacement illustrations and details on the data to be submitted in different Replacement scenarios.

7.3 Submission Details

A single Replacement application allows for the following scenarios:

- Multiple replacements on a single segment; and,
- Replacements on multiple segments under the same licence

If there are replacements on multiple licences, a separate Replacement application must be submitted for each licence involved.

7.3.1 Data Attributes Associated with the Replacement Application

Table 7.1 outlines the data attributes associated with a Replacement application. The amount of data required within the Replacement application depends on the scenario outlined in Section 23.2 of this document.

Table 7.1: Data Associated with a Replacement Application

Data Element	Description	System Required Data
Type of Application	The type of application is selected between the two applicable options: • **Replacement** • Re-Route	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Segment Details	The applicant provides specifications for the newly created segment. The applicant can also edit segment details for the original segment with the exception of watercourse questions. This includes segment design pressure, anticipated MOP, class location, segment length, H_2S partial pressure, designed for sour service, overpressure protection – ER, overpressure protection – CSA. Please refer to Section 2.3.2.3 for descriptions.	Conditional
Specification Change	The applicant can optionally provide specifications for the replacement section(s). This is only applicable if In-Kind = Yes and New Construction Date = No. Otherwise, the replacement section results in a new segment being created with its new Line Pipe Specifications. Please refer to Section 2.3.2.4 for descriptions of Specification Change.	No
Data Requirements if a Shapefile is Uploaded[1]		
Replacement Section (Yes/No)	A Yes/No declaration of whether or not the LineNo provided through the	Yes

	shapefile is a replacement section or not.	
In-Kind (Yes/No)	A Yes/No declaration if the replacement section(s) is in-kind. An in-kind Replacement is any change in material that results in the integrity and strength of the segment being the same or greater of the segment material.	Yes
New Construction Date (Yes/No)	A Yes/No declaration if the applicant desires to have a new construction date stored for the replacement section(s).	Yes
Intended Segment Status	The intended segment status for the replacement section(s) between "operate", "abandon" or "discontinue". If the user selects "abandon" or "discontinue", the operator has the approval to carry out the relevant field work with the Replacement application. The applicant, however, applies for a Leave to Open application to operate the segment.	Yes

[1] The data outlined in red is not required if a Replacement Template is uploaded because the replacement sections are in-kind and do not require a new construction date.

In addition, the applicant should be mindful of the following rules:

- The applicant will provide Line Pipe Spec and Segment Details for lines that **DO NOT** reference an existing segment in the PrevSegNo field of the shapefile (e.g., PrevSegNo is blank).
- The applicant **can** view Read-only Line Pipe Spec for lines that **DO** reference an existing segment in the PrevSegNo field of the shapefile when In-Kind = Yes (e.g., PrevSegNo is equal to segment number).
  - If the segment referenced by PrevSegNo has No Line Pipe Spec, then the applicant can edit Line Pipe Spec and Segment Details for the segment with the caveat that if the line pipe spec is not known, the applicant should NOT use the pipe spec of the Replacement across the entire segment.

7.3.2 Disclosure Questions

Table C.0.6 outlines the disclosure questions that will be populated for Replacement applications.

7.3.3 Replacement Template

The Replacement Template can be used within the Replacement application if the following holds true:

- The replaced section is in-kind; and
- The applicant does not want to record a new construction date on the replaced section.

The Replacement Template is a quick and easy way to apply for multiple replacements in a single segment and replacements on multiple segments under the same licence. The applicant must include which segment the replacement section belongs to as well as the replacement section's start and end latitude and longitude coordinates.

The Replacement Template can be found on the Pipeline Licensing Webpage. For instructions on how to populate the Replacement Template, please refer to Section 23.6 of this document.

7.3.4 Shapefile for a Replacement Application

One zipped shapefile will be submitted with the Replacement application (if a Replacement Template was not provided) that includes only the segments affected with the application and the following file types:

- .SHP
- .SHX
- .DBF
- .PRJ

Other file types generated by the mapping application may be included in the file.

The shapefile for the Replacement will contain four Pipeline Segment Attributes as seen in Table 7.2.

Table 7.2: Replacement Shapefile Attributes

FID	GEOM	LineNo	PrevSegNo
System Defined Unique Identifier	Spatial Geometry (polyline/linestring)	A unique number to represent the line in the provided shapefile.	The 'Segment Number' that the line in the shapefile applies to. This will help the system determine which segment the replacement/geometry applies to.[1]

[1] If the geometry references a PrevSegNo and in-kind=yes (in the application) the line in the shapefile will inherit the line pipe specification and segment detail from the PrevSegNo listed. The PrevSegNo can be left blank if it is a new segment that you do not want to copy the pipe specifications from a previous segment under the existing licence.

7.3.4.1 Shapefile for Replacement with No Segment Splitting

Figure 7.2 and Table 7.3 outline an example of two replacement sections on segment 1 where **no segment splitting will occur**.

Figure 7.2: Replacement With No Segment Splitting

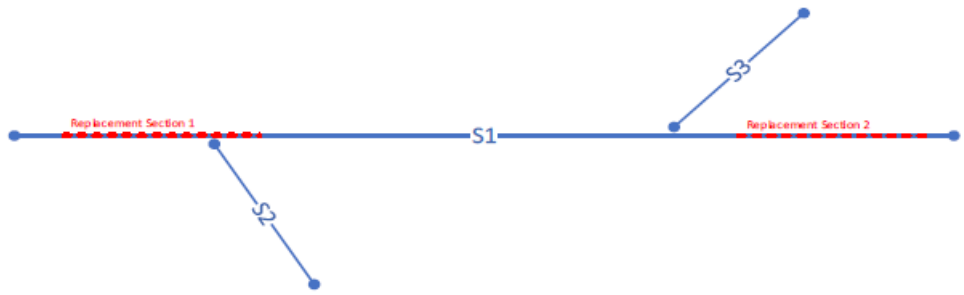


Table 7.3: Replacement with no Segment Splitting Shapefile Example

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1.	1	1
2	Polyline that represents the replacement section on segment 1	2	1
3	Polyline that represents the second replacement section on segment 1	3	1

Note: The following should be taken into consideration when preparing a Replacement shapefile:

- Line 1 in the shapefile represents segment's 1 geometry (this will be the same geometry that it currently has). The order is relevant, as the first line in the shapefile that references segment 1 is used as the new geometry for segment 1.
- The provided shapefile contains features for both replacement sections that reference the associated segment in the PrevSegNo attribute.

7.3.4.2 Shapefile for Replacement with Segment Splitting

Figure 7.3, Figure 7.4, and Table 7.4 outline an example of one replacement section on segment 1 where splitting will occur because the Replacement is either not in-kind and/or the applicant wants to record a newer construction date on the replacement section.

Figure 7.3: Replacement with Segment Splitting

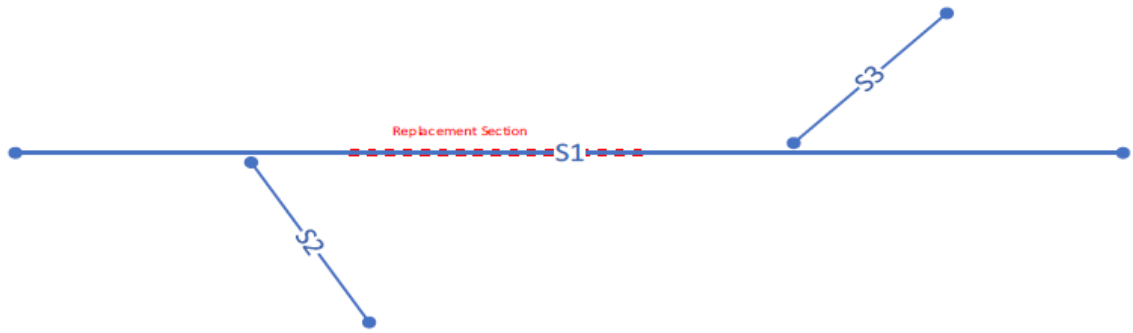


Figure 7.4: Segment Splitting as a Result of a Replacement Application

Table 7.4: Replacement with Segment Splitting Shapefile Example

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1 after the replacement (S1 from Figure 7.4)	1	1
2	Polyline that represents the full extent of the replacement section which will become a new segment (S4 from Figure 7.4)	2	1
3	Polyline that represents the remaining extent of the original segment 1 which will become a new segment (S5 from Figure 7.4)	3	1

Note: The following should be taken into consideration when preparing a Replacement shapefile:

- Order is relevant, as the first line that references segment 1 will be used as the new geometry for segment 1.
- If the replacement section occurs at the start or end of the existing segment there may only be two lines in the spatial file. This example illustrates a Replacement in the middle of the segment resulting in three lines (e.g., new segments are created).
- Referencing a PrevSegNo of 1 will allow the specifications from the original segment 1 to be copied to the newly created segments (if desired).
- If the PrevSegNo is left blank, the applicant will have to input all pipe specifications related to the newly created segment.

7.4 Risk Rules and Associated Documents To confirm if the rules found in Table 7.5 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 7.5 summarizes the risk rules used on the data provided within the application to determine when the Replacement application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 7.5 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 7.5: Risk Rules and Associated Documentation for Replacement Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
	-	Survey
01a	Licence Type = Pipeline **AND** [Licence Substance = Miscellaneous Gases – CO_2 **OR** Miscellaneous Liquids – CO_2 **OR** Miscellaneous Liquids - HVP]	• Manufacturer Pipe Specification • Gas Analysis (recommended)
33	Licence Type = Pipeline **AND** Licence Substance = Salt Water **AND** To Infrastructure Type ≠ Injection/Disposal Facility **AND** MOP > 2,000 kPa	• Manufacturer Pipe Specification
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis
03	Licence Type = Flowline	• Gas Analysis

	AND Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Manufacturer Pipe Specification
06-07-08	Material Type has a material limitation	• Manufacturer Pipe Specification • Gas Analysis
34	If any newly constructed segment in the application has a material limitation	• Manufacturer Pipe Specification • Gas Analysis
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification • Design Pressure Calculation
10	Material Type = Two or more different material types used across proposed segment(s) under the same licence	• Manufacturer Pipe Specification
11	[Material Type = Steel **OR** Material Type = Stainless Steel **OR** Material Type = Aluminum] **AND** [External Protection = Uncoated **OR** Other]	• Manufacturer Pipe Specification • Engineering Assessment (recommended)
12	Cover Depth < 0.6 m	• Typical crossing profile(s) • Engineering Assessment (recommended)
35	Designed for Sour Service = No **AND** Requires Sour Service Design= Yes	• Gas Analysis • Design Pressure Calculation
36	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation
24	Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guidelines? = No	• Design Pressure Calculation • Manufacturer Pipe Specification • Engineering Assessment (recommended)
27	Material Type = Stainless Steel	• Manufacturer Pipe Specification • Design Pressure Calculation
27B	Material Type = Aluminum	• Manufacturer Pipe Specification • Design Pressure Calculation
76	Will any of the proposed replacement or reroute sections cross a permanent watercourse? = Yes	• HDD Feasibility Report[1] • Hydro-fracture Analysis[1] • HDD Crossing Profile[1]

		• Drilling Execution Plan[1] • Geotechnical Report[1]
77	Do any of the existing registry segments associated with this application cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, converted from the Ministry's legacy database; and (2) Has no system records regarding watercourses. = Yes	• HDD Feasibility Report[1] • Hydro-fracture Analysis[1] • HDD Crossing Profile[1] • Drilling Execution Plan[1] • Geotechnical Report[1]
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings Diagrams & Plans (recommended)
91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings Diagrams & Plans (recommended) • Engineering Assessment (recommended)

[1] In accordance with Chapter 4 of Directive PNG034, the documentation for watercourse crossings is not required at the time of submission but can be deferred and submitted prior to submission of the Field Work Notification for construction. This includes HDD Feasibility Report with Hydro- Fracture Analysis, HDD Feasibility Report, Geotechnical Report, Drilling Execution Plan, HDD Crossing Profile, and/or Pullback Detail.

Note: A Survey is required for Replacement applications as outlined in Chapter 5.3 of Directive PNG034. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

8 Re-Route

8.1 Scope

This section outlines how to obtain approval to Re-Route a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998.* Please refer to Chapter 1.6 of Directive PNG034 for the definition of Re-Route.

8.1.1 Prior to Applying

Prior to applying for a Re-Route:

- All licence level data must be populated for the licence involved in the Re-Route application. For a licence issued prior to July 15, 2019, or retroactive flowline licences, the H_2S concentration and gas phase indicator may not be populated prior to initiating the Re-Route application. Therefore, before the system will allow you to initiate the Re-Route application, the applicant must submit a Licence Data Amendment to update the missing data.

- There cannot be any outstanding approvals or draft applications related to any segments under the licence.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g. New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

8.1.2 Post Approval

After approval has been issued for the Re-Route application the following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction-Re-Route' in accordance with Chapter 3.3 of Directive PNG034;
- Submit a Field Work Notification for 'Pressure Test – Re-Route' in accordance with Chapter 2.5.2 of Directive PNG034; and,
- Submit a Construction Completion Report once the pressure test has concluded and pipe has been tied in.

Once the Construction Completion Report has been submitted, the newly created segment(s) and/or geometry will be written to the Registry and can be seen in the Licence Details screen in IRIS. In addition, the licensee can submit a Leave to Open application to obtain approval to place their segments affected by the Re-Route application into operation.

8.2 Approach to the Application

A Re-Route always results in the segment being split (e.g., creation of new segments). The applicant will upload a shapefile that identifies the full extent of each of the segments involved in the application, including the re-routed segment(s).
Please review Section 23.3 of this document for Re-Route illustrations and details on the data to be submitted in different Re-Route scenarios.

8.3 Submission Details

A single Re-Route application allows for the following scenarios:

- Multiple re-routes on a single segment; and,
- Re-routes on multiple segments under the same licence

If there are re-routes on multiple licences, a separate Re-Route application must be submitted for each licence involved.

8.3.1 Data Attributes Associated with the Re-Route Application

Table 8.1 outlines the data attributes associated with a Re-Route application. The amount of data required within the Re-Route application depends on the scenario outlined in Section 23.3 of this document.

Table 8.1: Data Associated with Re-Route Applications

Data Element	Description	System Required Data
Type of Application	The type of application is selected from the two applicable options: • Replacement • **Re-Route**	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Copy Data (Yes/No)	A Yes/No declaration if the new segment copies data from its PrevSegNo listed in the shapefile.	Yes
New Construction Date (Yes/No)	A Yes/No declaration if the applicant wants a new construction date for the new segment.	Yes
Intended Segment Status	The intended segment status for the line between “operate”, “abandon”, “discontinue” and “remove”. If the user selects “abandon”, “discontinue” or “remove”, the operator has the approval to carry out the relevant field work (remove the segment) with the Re-Route application. The applicant, however, applies for a Leave to Open application for the segment to be operated.	Yes
Line Pipe Specification	The applicant provides specifications for the newly created segment. The applicant can also edit line pipe specifications details for the original segment if they are null. The applicant provides Line Pipe Spec for a LineNo. that does not reference an existing segment in the PrevSegNo field of the shapefile (e.g., PrevSegNo is blank). Please refer to Section 2.3.2.1 for descriptions of Line Pipe Specification.	Yes
Segment Details	The applicant provides segment details for the newly created segment. The applicant can also edit segment details for the original	Yes

	segment. Please refer to Section 2.3.2.3 for descriptions for Segment Details.	
Specification Change	The applicant can optionally provide pipe specification change for a re-routed section(s) that is within a segment. Please refer to Section 2.3.2.4 for descriptions for the Specification Change.	No

In addition, the applicant should be mindful of the following rules:

- The applicant will provide Line Pipe Spec and Segment Details for lines that **DO NOT** reference an existing segment in the PrevSegNo field of the shapefile (e.g., PrevSegNo is blank).
- The applicant **can** view Read-only Line Pipe Spec for lines that **DO** reference an existing segment in the PrevSegNo field of the shapefile when Copy Data = Yes (e.g., PrevSegNo is equal to segment number).
  - If the segment referenced by PrevSegNo has No Line Pipe Spec, then the applicant can edit Line Pipe Spec and Segment Details for the segment with the caveat that if the line pipe spec is not known, the applicant should NOT use the pipe spec of the re-route across the entire segment.

8.3.2 Disclosure Questions

Table C.0.7 outlines the disclosure questions that will be populated for Re-Route applications.

8.3.3 Shapefile for a Re-Route Application

One zipped shapefile will be submitted with the Re-Route application that includes only the segments affected with the application and the following file types:

- .SHP
- .SHX
- .DBF
- .PRJ

Other file types generated by the mapping application may be included in the file.
The shapefile for the Re-Route will contain four Pipeline Segment Attributes as in Table 8.2.

Table 8.2: Re-Route Shapefile Attributes

FID	GEOM	LineNo	PrevSegNo
System Defined Unique Identifier	Spatial Geometry (polyline)	A unique number to represent the line in the provided shapefile.	The 'Segment Number' that the line in the shapefile applies to.[1]

[1] If the geometry references a PrevSegNo and copy data=yes (in the application) the line in the shapefile will inherit the line pipe specification and segment detail from the PrevSegNo listed. The PrevSegNo can

be left blank if it is a new segment that you do not want to copy the pipe specifications from a previous segment under the existing licence.

8.3.3.1 Shapefile for a Re-Route that Has the Same Pipe Specification as the Original Segment

Figure 8.1, Figure 8.2, and Table 8.3 outline an example of two re-routed sections on segment 1 where both **re-routes are using the same pipe specifications as the original segment 1**.

Figure 8.1: Pipe Before the Re-Route

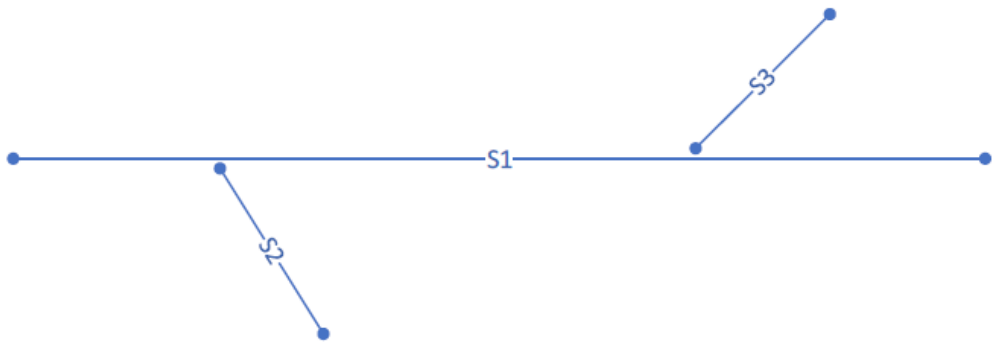


Figure 8.2: Shapefile For Re-Routed Sections Having the Same Pipe Specifications as the Original Segment

Table 8.3: Re-Route Having the Same Pipe Specification as the Original Segment Shapefile Example

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1 including the re-routes[1] (Line 1 from Figure 8.2)	1	1
2	Polyline that represents the full extent of the	2	1

	bypassed section by the new re-routed section[2] (Line 2 from Figure 8.2)		
3	Polyline that represents the full extent of the bypassed section by the new re-routed section[2] (S5 from Figure 7.4)	3	1

[1] The geometry for the re-routes are included in the first row because they will be part of Segment 1 since the re-routed sections have the same pipe specifications as the original segment 1.
[2] The bypassed section will obtain a new Segment ID and will no longer be part of segment 1 since the status of the bypassed segment will be changing.

Note: The following should be taken into consideration when preparing a Re-Route shapefile:

- The order is relevant, as the first line in the shapefile that references segment 1 in the PrevSegNo is used as the new geometry for segment 1.
- The provided shapefile contains three lines, and all lines should reference segment 1 in the PrevSegNo attribute so that the created segments inherit specifications from segment 1.
- Each LineNo provided in the shapefile for a Re-Route application turns into a segment.

8.3.3.2 Shapefile for a Re-Route that does not have the Same Pipe Specification as the Original Segment

Figure 8.3, Figure 8.4, and Table 8.4 *outline an example of two re-routed sections on segment 1 where both* ***re-routes are using the same pipe specifications as the original segment 1***.

Figure 8.3: Pipe Before the Re-Route

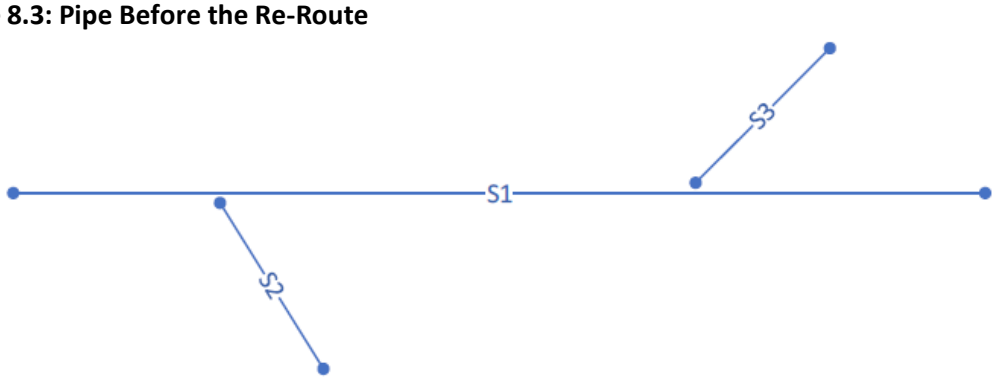


Figure 8.4: Shapefile For Re-Routed Sections with Different Pipe Specifications from the Original Segment

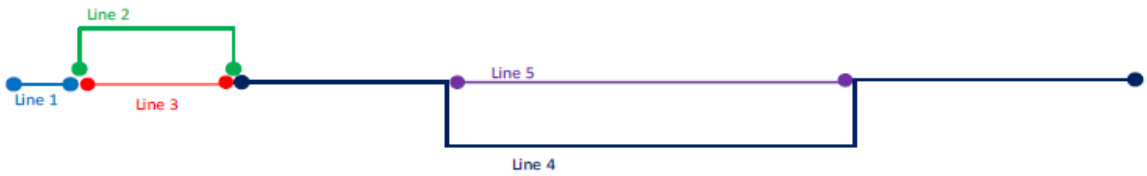


Table 8.4: Re-Routed Section with Different Pipe Specifications from Original Segment Shapefile Example

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1 after the re-routes[1] (Line 1 from Figure 8.4)	1	1
2	Polyline that represents the full extent of the first section of re-routed pipe[2] (Line 2 from Figure 8.4)	2	
3	Polyline that represents the full extent of the first bypassed section [3] (Line 3 from Figure 8.4)	3	1
4	Polyline that represents the remaining full extent of segment 1 after the second re-routes[4] (Line 4 from Figure 8.4)	4	1
5	Polyline that represents the full extent of the second bypassed section[3] (Line 5 from Figure 8.4)	5	1

[1] The geometry for the first re-route is not included in the first row since the re-routed sections have different pipe specifications as the original segment 1, therefore, requiring its own segment.
[2] The segment is not copying the pipe specification data from an existing segment; therefore, it requires its own segment and will not require a PrevSegNo to be populated in the Shapefile.
[3] The bypassed section will obtain a new Segment ID and will no longer be part of segment 1 since the status of the bypassed segment will be changing.
[4] This line will originally be part of Segment 1, however, there is now another re-routed section that will have the same pipe specification as the original segment 1. There will be a new segment created.

Note: The following should be taken into consideration when preparing a Re-Route shapefile:

- The order is relevant, as the first line in the shapefile that references segment 1 will be used as the new geometry for segment 1.
- The provided shapefile contains five lines and all lines, with the exception of Line 2, should reference segment 1 in the PrevSegNo attribute so that the created segments can copy the pipe specification from the original segment.
- Each LineNo provided in the shapefile for a Re-Route application turns into a segment.

8.4 Risk Rules and Associated Documents

Table 8.5 summarizes the risk rules used on the data provided within the application to determine when the Re-Route application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 8.5 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 8.5: Risk Rules and Associated Documents for Re-Route Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
	-	• Survey
01a	Licence Type = Pipeline **AND** [Licence Substance = Miscellaneous Gases – CO_2 **OR** Miscellaneous Liquids – CO_2 **OR** Miscellaneous Liquids - HVP]	• Manufacturer Pipe Specification • Gas Analysis (recommended)
33	Licence Type = Pipeline **AND** Licence Substance = Salt Water **AND** To Infrastructure Type ≠ Injection/Disposal Facility **AND** MOP > 2000 kPa	• Manufacturer Pipe Specification
02	Licence Type = Pipeline	• Gas Analysis

	AND Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Manufacturer Pipe Specification
06-07-08	Material Type has a material limitation	• Manufacturer Pipe Specification • Gas Analysis
34	If any newly constructed segment in the application has a material limitation	• Manufacturer Pipe Specification • Gas Analysis
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification • Design Pressure Calculation
10	Material Type = Two or more different material types used across proposed segment(s) under the same licence	• Manufacturer Pipe Specification
11	[Material Type = Steel **OR** Material Type = Stainless Steel **OR** Material Type = Aluminum] **AND** [External Protection = Uncoated **OR** Other]	• Manufacturer Pipe Specification • Engineering Assessment (recommended)
12	Cover Depth < 0.6 m	• Typical crossing profile(s) • Engineering Assessment (recommended)
35	Designed for Sour Service = No **AND** Requires Sour Service Design = Yes	• Gas Analysis • Design Pressure Calculation
36	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation
24	Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guidelines? = No	• Design Pressure Calculation • Manufacturer Pipe Specification • Engineering Assessment (recommended)
27	Material Type = Stainless Steel	• Manufacturer Pipe Specification • Design Pressure Calculation

27B	Material Type = Aluminum	• Manufacturer Pipe Specification • Design Pressure Calculation
76	Will any of the proposed replacement or reroute sections cross a permanent watercourse? = Yes	• HDD Feasibility Report[1] • Hydro-fracture Analysis[1] • HDD Crossing Profile[1] • Drilling Execution Plan[1] • Geotechnical Report[1]
77	Do any of the existing registry segments associated with this application cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, converted from the Ministry's legacy database; and (2) Has no system records regarding watercourses. = Yes	• HDD Feasibility Report[1] • Hydro-fracture Analysis[1] • HDD Crossing Profile[1] • Drilling Execution Plan[1] • Geotechnical Report[1]
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings Diagrams & Plans (recommended)
91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings Diagrams & Plans (recommended) • Engineering Assessment (recommended)

[1] In accordance with Chapter 4 of Directive PNG034, the documentation for watercourse crossings is not required at the time of submission but can be deferred and submitted prior to submission of the Field Work Notification for construction. This includes HDD Feasibility Report with Hydro- Fracture Analysis, HDD Feasibility Report, Geotechnical Report, Drilling Execution Plan, HDD Crossing Profile, and/or Pullback Detail.

Note: A Survey is required for Re-Route applications as outlined in Chapter 5.4 of Directive PNG034. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

9 Discontinuation

9.1 Scope

This section outlines how to report Discontinuation on a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*. Please refer to Chapter 1.6 of Directive PNG034 for the definition of Discontinuation and Chapter 5.3 of Directive PNG034 for Discontinuation reporting requirements.

9.1.1 Prior to Reporting

Prior to reporting Discontinuation:

- There cannot be any outstanding approvals or draft applications related to any segments for which you are reporting Discontinuation.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If the Discontinuation only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to reporting the Discontinuation.

In accordance with Chapter 5.3 of Directive PNG034, a Field Work Notification for 'Discontinuation' is not required prior to initiating the work in the field. If the licensee wants to submit a Field Work Notification for the Discontinuation, it is encouraged that it is done at least two business days prior to the commencement of the Discontinuation work in the field.

9.1.2 Post Reporting

After the Discontinuation has been reported through IRIS, no further action is required. The segment(s) status will be immediately changed to 'Discontinued' after submission.

9.2 Submission Details

After the Discontinuation work has been completed in the field you can report Discontinuation on multiple segments within the same submission if they are under the same licence. In addition, you can report both Discontinuation and Abandonment on multiple segments within the same submission if they are under the same licence.

9.2.1 Data Attributes Associated with the Discontinuation Report

Table 9.1 outlines the data attributes associated with Discontinuation reporting.

Table 9.1: Data Associated with Discontinuation Reporting

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Action	The action is selected between the two applicable options: • Abandon • **Discontinue**	Yes
Date	The date when the discontinuation work was completed in the field.	Yes
Reason	The reason for discontinuation is selected from a pre-populated drop-down list below: • Integrity	No

	• Economics • Other[1]	
Last Flow or Depressurization Date	The date when the active flow was last carried by the segment.	Yes
Followed CSA Z662? (Yes/No)	Self-declaration to determine if the licensee has carried out the discontinuation in accordance with the latest version of CSA Standard Z662, *Oil and Gas Pipeline Systems*.	Yes

[1] If the applicant selects 'other' for the reason for Discontinuation, there will not be a text box that prompts the applicant to enter in the Discontinuation reason.

9.2.2 Disclosure Questions

There are no disclosure questions related to the Discontinuation reporting process.

9.3 Validation Rules and Associated Documents

There are no risk rules that are ran for Discontinuation reporting, however, validation rules are used. If the Discontinuation was not carried out in accordance with the latest version of CSA Z662, the system will not let the applicant submit the Discontinuation unless a document labelled 'Discontinuation Report' is attached with the submission.

10 Abandonment

10.1 Scope (Routine Abandonment)

This section outlines how to report Abandonment on a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*. Please refer to Chapter 1.6 of Directive PNG034 for the definition of Abandonment and Chapter 5.3 of Directive PNG034 for Abandonment reporting requirements.

10.1.1 Prior to Reporting

Prior to reporting Abandonment:

- There cannot be any outstanding approvals or draft applications related to any segments for which you are reporting Abandonment.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If the Abandonment only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to reporting the Abandonment.

In accordance with Chapter 5.3 of Directive PNG034, a Field Work Notification for 'Routine-Abandonment' is not required prior to initiating the work in the field. If the licensee wants to submit a Field Work Notification for this type of Abandonment, it is encouraged that it is done at least two business days to the commencement of the Abandonment work in the field.

10.1.2 Post Reporting

After the Abandonment has been reported through IRIS, no further action is required. The segment(s) status will be immediately changed to 'Abandoned' after submission.

10.2 Submission Details

After the Abandonment work has been completed in the field you can report Abandonment on multiple segments within the same submission if they are under the same licence. In addition, you can report both Discontinuation and Abandonment on multiple segments within the same submission if they are under the same licence.

10.2.1 Data Attributes Associated with the Abandonment Reporting

Table 10.1 outlines the data attributes associated with Abandonment reporting.

Table 10.1: Data Associated with Abandonment Reporting

Data Element	Description	System Required Data
Action	The action is selected between the two applicable options: • **Abandon** • Discontinue	Yes
Date	The date when the abandonment work was completed in the field.	Yes
Reason	The reason for abandonment is selected from a pre-populated drop-down list below: • Integrity • Economics • Other[1]	No
Followed CSA Z662? (Yes/No)	Self-declaration to determine if the licensee has carried out the abandonment in accordance with the latest version of CSA Standard Z662, *Oil and Gas Pipeline Systems*.	Yes

[1] If the applicant selects 'other' for the reason for Abandonment, there will not be a text box that prompts the applicant to enter in the Abandonment reason.

10.2.2 Disclosure Questions

There are no disclosure questions related to this section of the Abandonment reporting process.

10.2.3 Validation Rules and Associated Documents

There are no risk rules that are run for Abandonment reporting; however, validation rules are used. If the Abandonment was not carried out in accordance with the latest version of CSA Z662, the system will not let the applicant submit the Abandonment unless a document labeled 'Abandonment Report' is attached with the submission.

10.3 Scope (Non-Routine Abandonment)

This section outlines how to obtain approval for Non-Routine Abandonment of a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*. Please refer to Chapter 1.6 of Directive PNG034 for the definition of Abandonment and Chapter 5.3 of Directive PNG034 for Abandonment requirements.

10.3.1 Prior to Applying

- There cannot be any outstanding approvals or draft applications related to any segments for which you are applying for.
- This includes applications that are currently under review by an ER SME; and,
- Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If the Abandonment only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to applying the Abandonment.

In accordance with Chapter 5.3 of Directive PNG034, a Field Work Notification for 'Non-Routine Abandonment' is required prior to initiating the work in the field. The licencee should submit a Field Work Notification for non-routine Abandonment, it should be submitted two business days prior to the commencement of Abandonment.

10.3.2 Post Approval

After approval has been issued for the Abandonment application, the follow steps will be taken by the applicant:

- Submit a Field Work Notification for 'Abandonment' in accordance with Chapter 3.3 of Directive PNG034;

10.3.3 Approach to Application

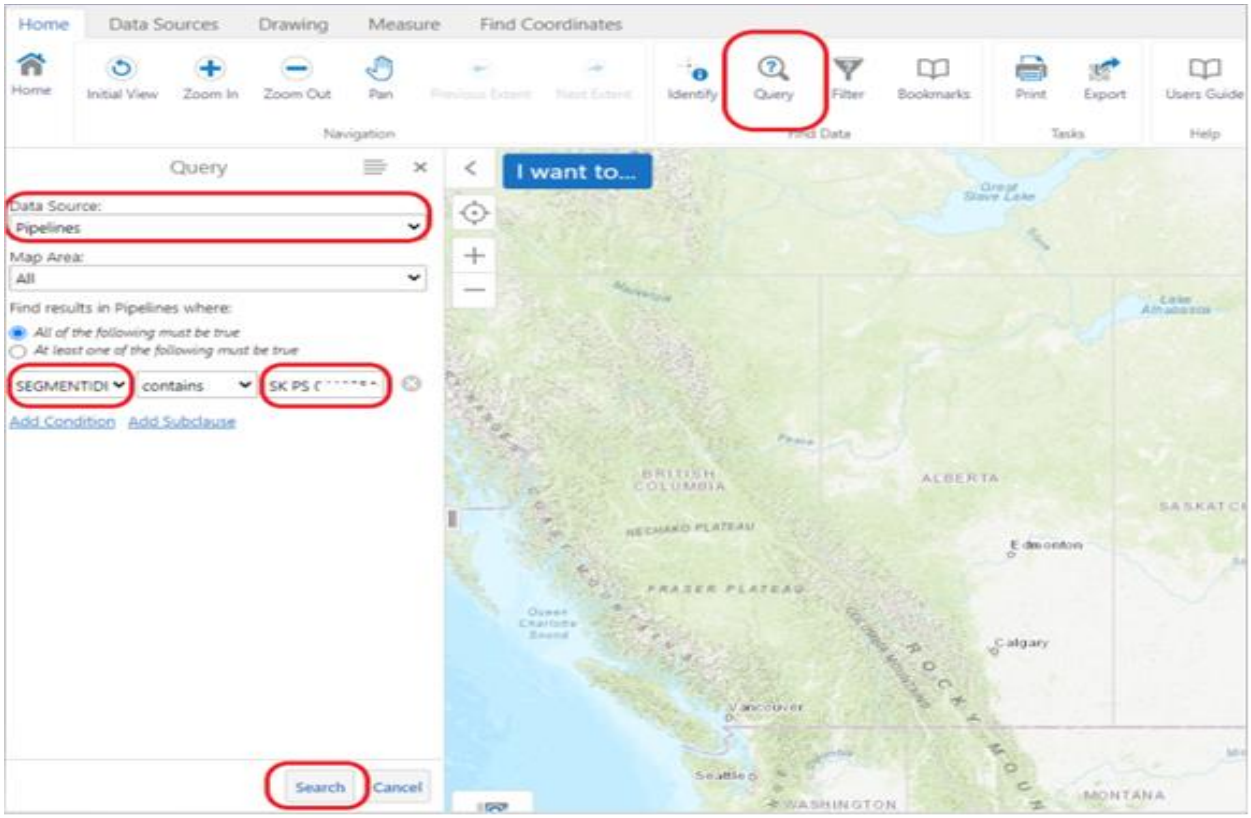
An application is required for non-routine abandonments if pipelines cross a watercourse, are within an area of sensitive surface/groundwater, or are within an urban municipality. Applicant can confirm whether abandonment is non-routine via Geo Atlas by selecting the applicable layer

to identify whether the line falls into the criteria specified for non-routine abandonment applications.

The following steps can be taken to identify a segment:
Geo Atlas link: https://gisappl.saskatchewan.ca/Html5Ext/index.html?viewer=GeoAtlas

- Click on Query;

Figure 10.1: Preview of how to locate a segment on Geo Atlas



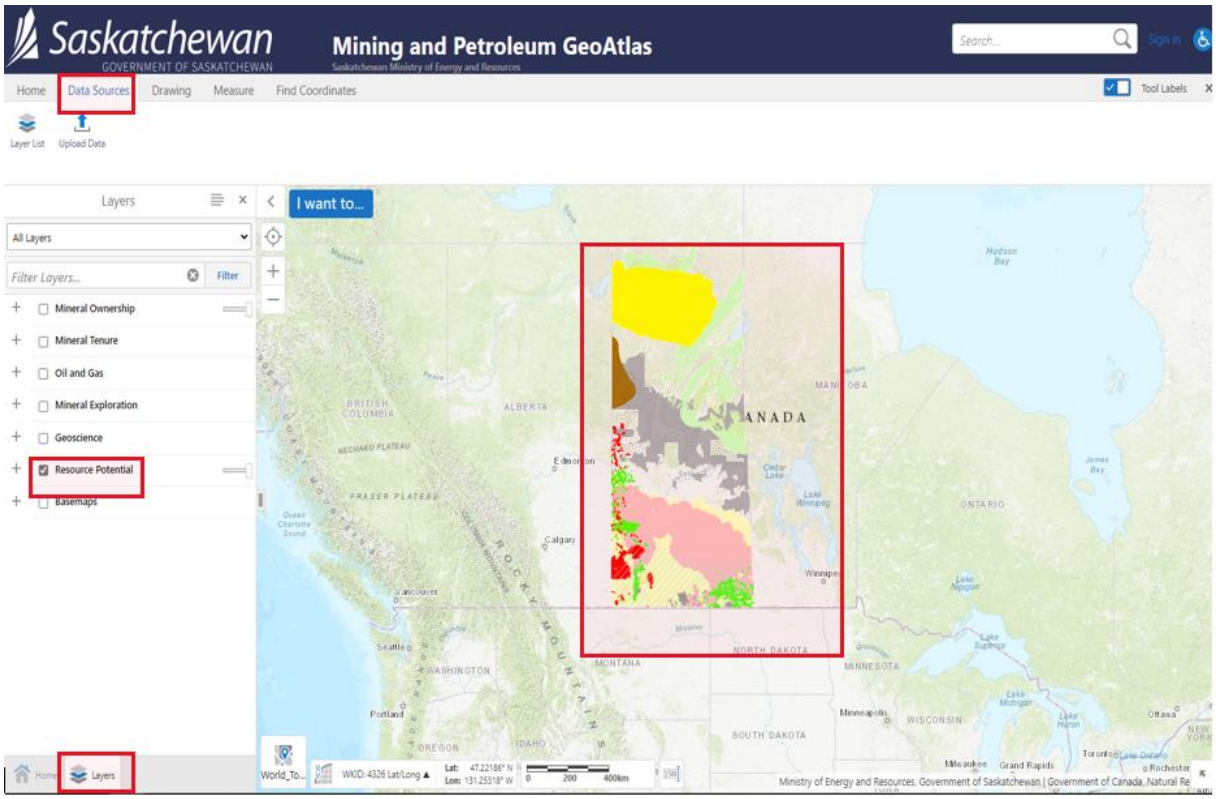
- Select “Pipelines” from the Data Source dropdown;
- Select “SEGMENTIDINIFIER” and enter the applicable Segment ID;
- Click on “Search” button.

The following steps can be taken to identify which lines fall into these criteria:

- Click on “Layers” at the bottom left as seen in the image as shown in figure 10.3;

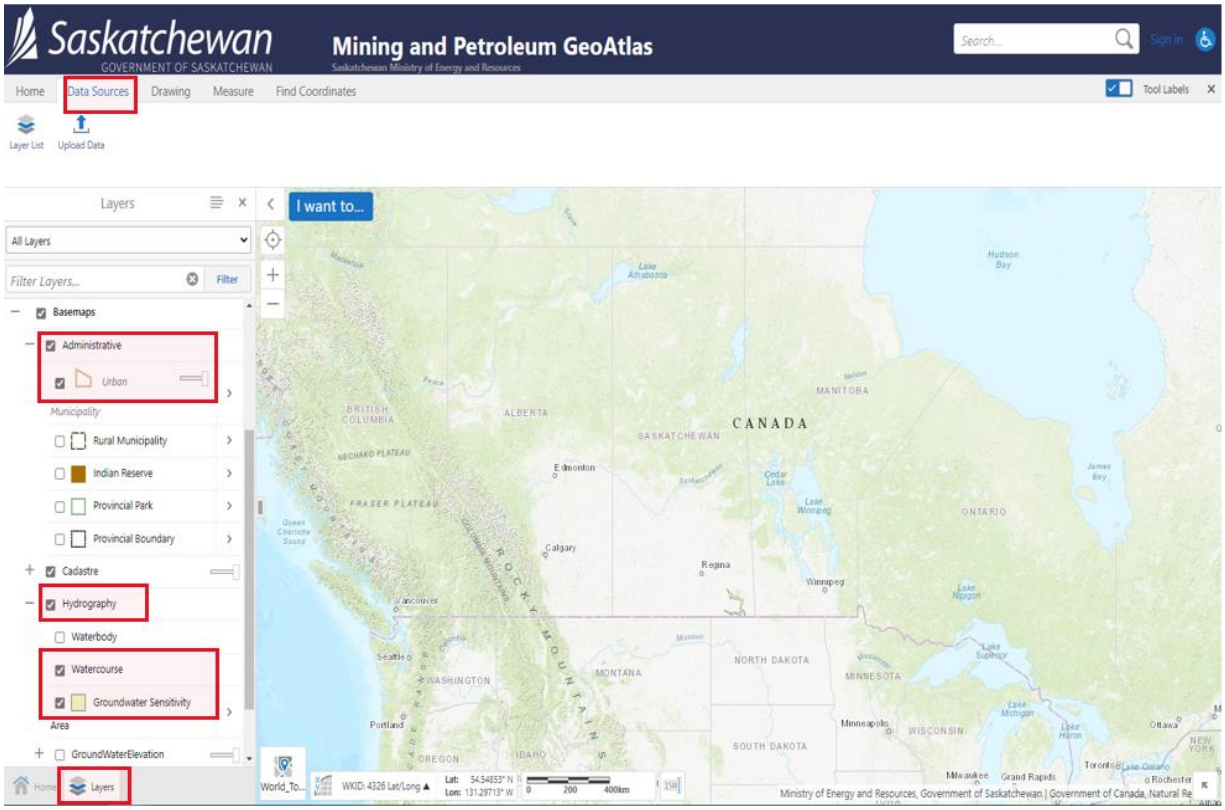
Note: *A default layer selected when Geo Atlas is launched is the “Resource Potential" layer. In order to get a clearer display of the map, this box should be unchecked.*

Figure 10.2: Preview of layer required to be unchecked to provide a clearer view of map



- Select the “Administrative” layer as shown in figure 10.3;
- Select the “Urban” layer as shown in figure 10.3;
- Select the “Hydrography” layer as shown in figure 10.3;
- Select “Watercourse” layer as shown in figure 10.3;
- Select “Groundwater Sensitivity” as shown in figure 10.3.

Figure 10.3: Selected layers showing where non-routine abandonments might be applicable on Geo Atlas.



10.4 Submission Details

Table 10.6.1 Data attributes associated with Non-Routine Abandonment Application

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for the description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No

10.4.1 Disclosure Questions

There are no disclosure questions related to the Non-routine Abandonment application process.

10.4.2 Risk Rules and Associated Documents

There are no risk rules associated with non-routine abandonment applications, however, an Abandonment plan is required, its requirements can be found in CSA Z662 section 10.16.

11 Reactivation

11.1 Scope

This section outlines how to obtain approval to reactivate an abandoned or discontinued pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998.* Please refer to Chapter 1.6 of Directive PNG034 for the definition of Reactivation.

11.1.1 Prior to Applying

Prior to applying for the Reactivation:

- The segment status must be 'discontinued' or 'abandoned'.
- All licence level data must be populated for the licence involved in the Reactivation application. For a licence issued prior to July 15, 2019, or retroactive flowline licences, the H_2S concentration and gas phase indicator may not be populated prior to initiating the Reactivation application. Therefore, before the system will allow you to initiate the Reactivation application, the applicant must submit a Licence Data Amendment to update missing data.
- There cannot be any outstanding approvals or draft applications related to the segment you are applying to reactivate.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If the reactivation only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to initiating the Reactivation application.

11.1.2 Post Approval

After approval has been issued for the Reactivation application the following steps will be taken by the applicant if a Leave to Open was not automatically issued:

- Submit a Field Work Notification for 'Construction-Reactivation' in accordance with Chapter 3.3 of Directive PNG034 (if applicable);
- Submit a Field Work Notification for 'Pressure Test – Reactivation' in accordance with Chapter 2.5.2 of Directive PNG034 (if applicable); and,
- Submit a Construction Completion Report once the pressure test has concluded and pipe has been tied in.

Once the Construction Completion Report has been submitted, the reactivation details will be written to the Registry and can be seen in the Licence Details screen in IRIS. In addition, the licensee can submit a Leave to Open application to obtain approval to place their segment affected by the Reactivation application into operation.
If a Leave to Open approval was automatically issued with the Reactivation approval no further action is required as the status of the segment will be immediately changed to 'Operating'. This means the licensee can commence operation of the reactivated segment.

11.2 Approach to Application

There are two scenarios that can occur with a Reactivation approval:

1. Reactivation approval for an abandoned or discontinued segment **result** in the issuance of Leave to Open.
   - In some cases, this implies that the applicant submitted an engineering assessment that resulted in a successful ER review or a recent pressure test for the segment.
   - In this scenario, a Construction Completion Report and Leave to Open is not required.
2. Reactivation approval for an abandoned or discontinued segment **does not** result in the issuance of Leave to Open.
   - In most cases, this implies that the applicant will pressure test the segment before applying for a Leave to Open approval.
   - In this scenario, the applicant will submit a Construction Completion Report followed by a Leave to Open application to obtain a status of 'operating' for the reactivated segment.

11.3 Submission Details

Each Reactivation application is for a single segment. If there are multiple segments requiring Reactivation approval, multiple Reactivation applications need to be submitted.

11.3.1 Data Attributes Associated with the Reactivation Application

Table 11.1 outlines the data attributes associated with the Reactivation application.

Table 11.1: Data Associated with Reactivation Applications

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes

Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Last Flow or Depressurization Date	The date when the active flow was last carried by the segment.	No
Will the reactivation activities involve ground disturbance? (Yes/No)	A Yes/No declaration of whether the reactivation approval involves ground disturbance.	Yes
Segment Length (km)	Please refer to Section 2.3.2.3 for description.[1]	Yes
Class Location		Yes
Anticipated MOP (kPa)		Yes
Segment Design Pressure (kPa)		Yes
H_2S Partial Pressure (kPa)		Yes
Requires Sour Service Design (Yes/No)		Yes
Designed for Sour Service (Yes/No)		Yes
Bi-directional Flow (Yes/No)		Yes
Watercourse Type		Yes
Meets overpressure requirement – ER (Yes/No)		Yes
Meets overpressure requirement – Z662 (Yes/No)		Yes

[1] If this data was already populated for the segment prior to it obtaining a discontinued or abandoned status, the data will be brought forward and prepopulated within the Reactivation application. If the data was not populated for the segment prior to obtaining a discontinued or abandoned status, the applicant will enter the data on the screen before they are able to continue with the application.

11.3.2 Disclosure Questions

Table C.0.8 outlines the disclosure questions that will be populated for Reactivation applications.

11.4 Risk Rules and Associated Documents

Table 11.2 summarizes the risk rules used on the data provided within the application to determine when the Reactivation application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 11.2 and Table 3.5 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 11.2: Risk Rules and Associated Documents for Reactivation Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
01a	Licence Type = Pipeline **AND** [Licence Substance = Miscellaneous Gases – CO_2 **OR** Miscellaneous Liquids – CO_2 **OR** Miscellaneous Liquids - HVP]	• Manufacturer Pipe Specification (recommended) • Survey (recommended) • Gas Analysis (recommended)
01b	Licence Type = Pipeline **AND** Licence Substance = Salt Water **AND** To Infrastructure Type ≠ Injection/Disposal Facility **AND** MOP > 2,000 kPa	• Manufacturer Pipe Specification (recommended) • Survey (recommended)
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis (recommended)
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis (recommended)
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Manufacturer Pipe Specification (recommended) • Survey (recommended)
05	Licence Type = Pipeline **AND** Sum of all Segment Lengths for the segments > 40 km	• Survey (recommended)
06-07-08	Material Type has a material limitation	• Manufacturer Pipe Specification (recommended) • Gas Analysis
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification (recommended) • Design Pressure Calculation (recommended)

11	[Material Type = Steel **OR** Material Type = Stainless Steel **OR** Material Type = Aluminum] **AND** [External Protection = Uncoated **OR** Other]	• Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)
12	Cover Depth < 0.6 m	• Typical crossing profile(s) (recommended) • Engineering Assessment (recommended)
17	Designed for Sour Service = No **AND** Requires Sour Service Design = Yes	• Gas Analysis • Design Pressure Calculation (recommended)
18	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation (recommended)
24	Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guidelines? = No	• Design Pressure Calculation (recommended) • Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)
27	Material Type = Stainless Steel	• Manufacturer Pipe Specification (recommended) • Design Pressure Calculation (recommended)
27B	Material Type = Aluminum	• Manufacturer Pipe Specification (recommended) • Design Pressure Calculation (recommended)
40	Segment Status = Abandoned	• Design Pressure Calculation (recommended) • Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)

41	Segment Status = Discontinued **AND** Last Active Flow Date = Null	• Design Pressure Calculation (recommended) • Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)
42	Segment Status = Discontinued **AND** Last Flow Date > 12 months	• Design Pressure Calculation (recommended) • Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)
66	Calculated Design Pressure = Null **OR** Cover Depth = Null **OR** Internal Protection = Null **OR** External Protection = Null	• Design Pressure Calculation (recommended) • Manufacturer Pipe Specification (recommended)
75	Large Permanent Watercourse **OR** Small Permanent Watercourse associated with segment(s) = Yes	• HDD Feasibility Report[1] (recommended) • Hydro-fracture Analysis[1] (recommended) • HDD Crossing Profile[1] (recommended) • Drilling Execution Plan[1] (recommended) • Geotechnical Report[1] (recommended)
77	Do any of the existing registry segments associated with this application cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, converted from the Ministry's legacy database; and (2) Has no system records regarding watercourses. = Yes	• HDD Feasibility Report[1] (recommended) • Hydro-fracture Analysis[1] (recommended) • HDD Crossing Profile[1] (recommended) • Drilling Execution Plan[1] (recommended) • Geotechnical Report[1] (recommended)
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings Diagrams & Plans (recommended) • Survey (recommended)

91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings Diagrams & Plans (recommended) • Engineering Assessment (recommended) • Survey (recommended)
82	Licence Type = Pipeline	• None

[1] In accordance with Chapter 4 of Directive PNG034, the documentation for watercourse crossings is not required at the time of submission but can be deferred and submitted prior to submission of the Field Work Notification for construction. This includes HDD Feasibility Report with Hydro- Fracture Analysis, HDD Feasibility Report, Geotechnical Report, Drilling Execution Plan, HDD Crossing Profile, and/or Pullback Detail.

Note: There are no mandatory attachments for a Reactivation application at the time of submission. If the Reactivation application goes non-routine for further review by an ER SME, they may require additional documents to be submitted before they are able to complete their review. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

12 Liner Installation

12.1 Scope

This section outlines how to obtain approval to install a free-standing liner in a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*. This section does not refer to the requirements for tight liners. In order to insert a tight liner, the applicant provides it as an internal protection for the segment.

Note: The terms 'liner' and 'free-standing liner' are used interchangeably within this chapter.

12.1.1 Prior to Applying

Prior to applying for the Liner Installation:

- All licence level data must be populated for the licence involved in the Liner Installation application. For a licence issued prior to July 15, 2019, or retroactive flowline licences, the H_2S concentration and gas phase indicator may not be populated prior to initiating the Liner Installation application. Therefore, before the system will allow you to initiate the Liner Installation application, the applicant must submit a Licence Data Amendment to update the missing data.
- There cannot be any outstanding approvals or draft applications related to the segment you are applying to install a free-standing liner into.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g. New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

- If the Liner Installation only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to initiating the Liner Installation application.

12.1.2 Post Approval

After approval has been issued for the Liner Installation application the following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction-Liner Install' in accordance with Chapter 3.3 of Directive PNG034;
- Submit a Field Work Notification for 'Pressure Test – Liner Install' in accordance with Chapter 2.5.2 of Directive PNG034; and,
- Submit a Construction Completion Report once the pressure test has concluded and pipe has been tied in.

Once the Construction Completion Report has been submitted, the liner details will be written to the Registry and can be seen in the Licence Details and Segment Details screen in IRIS. In addition, the licensee can submit a Leave to Open application to obtain approval to place their segment affected by the Liner Installation application into operation.

12.2 Submission Details

Each Liner Installation application can only be applicable to a single segment. If there are multiple segments that require approval for Liner Installation, separate applications will be submitted.

12.2.1 Data Attributes Associated with the Liner Installation Application

Table 12.1 outlines the data attributes associated with the Liner Installation application.

Table 12.1: Data Associated with Liner Installation Applications

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Intended Date of Liner Installation	The date intended for free-standing liner installation in the field.	Yes

Will the liner installation activities involve ground disturbance? (Yes/No)	A Yes/No declaration of whether the liner installation will involve ground disturbance.	Yes
Liner Material Type	Please refer to Section 2.3.2.2 for description.	Yes
Liner Material Standard		Yes
Liner Material Grade		Yes
SMYS/MPR (MPa)		Yes
Outside Diameter (mm)		Yes
Wall Thickness (mm)		Yes
CSA Factors		Yes
Calculated Design Pressure (kPa)		Yes
Segment Design Pressure (kPa)	Please refer to Section 2.3.2.3 for description.[1]	Yes
Anticipated MOP (kPa)		Yes
H_2S Partial Pressure (kPa)		Yes
Designed for Sour Service (Yes/No)		Yes
Bi-directional Flow (Yes/No)		Yes
Class Location		Yes
Segment Length (km)		Yes
Watercourse Type		Yes
Meets overpressure requirement – ER (Yes/No)		Yes
Meets overpressure requirement – Z662 (Yes/No)		Yes

[1] If this data was already populated for the segment prior to initiating the Liner Installation application, the data will be brought forward and prepopulated within the Liner Installation application with the exception of Segment Design Pressure. The applicant will always have to provide a new segment design pressure as it will be applicable to the liner not the line pipe. If the data was not populated for the segment prior to initiating the Liner Installation application, the applicant will enter all data on the screen before they are able to continue with the application.

12.2.2 Disclosure Questions

Table C.0.4 outlines disclosure questions that will be populated for Liner Installation applications.

12.3 Risk Rules and Associated Documents

Table 12.2 summarizes the risk rules used on the data provided within the application to determine when the Liner Installation application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 12.2 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 12.2: Risk Rules and Associated Documents for Liner Installation Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
01a	Licence Type = Pipeline **AND** [Licence Substance = Miscellaneous Gases – CO_2 **OR** Miscellaneous Liquids – CO_2 **OR** Miscellaneous Liquids - HVP]	• Survey (recommended) • Gas Analysis (recommended) • Manufacturer Pipe Specification
01b	Licence Type = Pipeline **AND** Licence Substance = Salt Water **AND** To Infrastructure Type for any segment under the licence ≠ Injection/Disposal Facility **AND** MOP > 2,000 kPa	• Survey (recommended) • Manufacturer Pipe Specification
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Survey (recommended) • Manufacturer Pipe Specification
05	Licence Type = Pipeline **AND** Sum of all Segment Lengths for the segments > 40 km	• Survey (recommended)
06-07-08	Material Type has a material limitation	• Manufacturer Pipe Specification
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification • Design Pressure Calculation
12	Cover Depth < 0.6 m	• Typical crossing profile(s) (recommended)
17	Designed for Sour Service = No **AND** Requires Sour Service Design = Yes	• Gas Analysis • Design Pressure Calculation

18	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation
24	Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guidelines? = No	• Design Pressure Calculation • Manufacturer Pipe Specification • Engineering Assessment (recommended)
27	Material Type = Stainless Steel	• Design Pressure Calculation • Manufacturer Pipe Specification
27B	Material Type = Aluminum	• Design Pressure Calculation • Manufacturer Pipe Specification
75	Large Permanent Watercourse **OR** Small Permanent Watercourse associated with segment(s) = Yes	• HDD Feasibility Report[1] (recommended) • Hydro-fracture Analysis[1] (recommended) • HDD Crossing Profile[1] (recommended) • Drilling Execution Plan[1] (recommended) • Geotechnical Report[1] (recommended)
77	Do any of the existing registry segments associated with this application cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, converted from the Ministry's legacy database; and (2) Has no system records regarding watercourses. = Yes	• HDD Feasibility Report[1] (recommended) • Hydro-fracture Analysis[1] (recommended) • HDD Crossing Profile[1] (recommended) • Drilling Execution Plan[1] (recommended) • Geotechnical Report[1] (recommended)
90B	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended)
91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended) • Engineering Assessment (recommended)

[1] In accordance with Chapter 4 of Directive PNG034, the documentation for watercourse crossings is not required at the time of submission but can be deferred and submitted prior to submission of the Field Work Notification for construction. This includes HDD Feasibility Report with Hydro- Fracture Analysis, HDD Feasibility Report, Geotechnical Report, Drilling Execution Plan, HDD Crossing Profile, and/or Pullback Detail.

Note: If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

13 Liner Removal

13.1 Scope

This section outlines how to obtain approval to remove a free-standing liner from a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*. This section does not refer to the requirements for removal of tight liners.

Note: The terms 'liner' and 'free-standing liner' are used interchangeably within this chapter.

13.1.1 Prior to Applying

Prior to applying for the Liner Removal:

- The segment must have a liner installed.
- There cannot be any outstanding approvals or draft applications related to the segment you are applying to remove the free-standing liner from.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If the liner removal only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to initiating the Liner Removal application.

13.1.2 Post Approval

After approval has been issued for the Liner Removal application the following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction-Liner Removal' in accordance with Chapter 3.3 of Directive PNG034; and,
- Submit a Construction Completion Report once the liner has been removed.

Once the Construction Completion Report has been submitted, the liner details will be stored as a historical liner record on the Segment Details screen in IRIS and the segment's status will be changed to 'Under Construction – Amendment'. If the line pipe is going back into operation, the licensee will submit a Leave to Open application to obtain approval to place their segment affected by the Liner Removal application into operation.

Note: The segment design pressure associated with the segment will still be the segment design pressure populated within the Liner Installation application. If the segment design pressure is different than that of the historical liner, the applicant may want to submit a Segment Data

Amendment prior to initiating the Leave to Open application to ensure they are able to obtain the MOP appropriate to the line pipe.

13.2 Submission Details

Each Liner Removal application can only be applicable to a single segment. If there are multiple segments that require approval for Liner Removal, separate applications will be submitted.

13.2.1 Data Attributes Associated with the Liner Removal Application

Table 13.1 outlines the data attributes associated with the Liner Removal application.

Table 13.1: Data Associated with Liner Removal Applications

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Intended Date of Liner Removal	The date which is intended for the free-standing liner removal in the field.	Yes
Will the liner removal activities involve ground disturbance? (Yes/No)	A Yes/No declaration of whether the liner removal will involve ground disturbance.	Yes

13.2.2 Disclosure Questions

Table C.0.5 outlines the disclosure questions that will be populated for Liner Removal applications.

13.3 Risk Rules and Associated Documents

Table 13.2 summarizes the risk rules used on the data provided within the application to determine when the Liner Removal application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 13.2 and Table 3.5 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 13.2: Risk Rules and Associated Documents for Liner Removal Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• None
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• None
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• None
05	Licence Type = Pipeline **AND** Sum of all Segment Lengths for the segments > 40 km	• None
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• None
27	Material Type = Stainless Steel	• None
27B	Material Type = Aluminum	• None
75	Large Permanent Watercourse **OR** Small Permanent Watercourse associated with segment(s) = Yes	• None
77	Do any of the existing registry segments associated with this application cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, converted from the Ministry's legacy database; and (2) Has no system records regarding watercourses. = Yes	• None
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended)
91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended) • Engineering Assessment (recommended)

Note: There are no mandatory attachments for a Liner Removal application at the time of submission. If the Liner Removal application goes non-routine for further review by an ER SME, they may require additional documents to be submitted before they are able to complete their review. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

14 Removal

14.1 Scope

This section outlines how to obtain approval to remove a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*. Please note this only applies to pipe up to the first valve and does not apply to A/G piping (headers, pig barrels etc.).

14.1.1 Prior to Applying

Prior to applying for the removal of a segment:

- There cannot be any outstanding approvals or draft applications related to the segment you are applying to remove.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If the removal only applies to a portion of the segment, the appropriate segment(s) will be created using Segment Splitting prior to initiating the removal application.

14.1.2 Post Approval

After approval has been issued for the removal application the following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction-Removal' in accordance with Chapter 3.3 of Directive PNG034; and,
- Submit a Construction Completion Report once the segment has been removed. This will fulfill the obligation associated with the removal application.

Once the Construction Completion Report has been submitted the segment's status will be changed to 'Removed' and the details will be written to the Registry and can be found on the Licence Detail or Segment Detail screens.

Note: Once the segment has a status of 'Removed', no reporting or application processes can be initiated for that segment.

14.2 Submission Details

The removal application only allows for removal of one segment per application. If there are multiple segments under the same licence that will be removed, multiple removal applications will be submitted.

14.2.1 Data Attributes Associated with the Removal Application

Table 14.1 outlines the data attributes associated with a removal application.

Table 14.1: Data Associated with a Removal Application

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
Contact Name		Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Intended Date of Removal	The date which is intended for segment removal in the field.	Yes
Reason for Removal	A drop-down menu of reasons for removal: • Integrity • Economics • Other[1]	No

[1] If the applicant selects 'other' for the reason for removal, there will not be a text box that prompts the applicant to enter in the removal reason.

14.2.2 Disclosure Questions

Table C.0.9 outlines the disclosure questions that will be populated for Segment Removal applications.

14.3 Risk Rules and Associated Documents

Table 14.2 summarizes the risk rules used on the data provided within the application to determine when the removal application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 14.2 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 14.2: Risk Rules and Associated Documents for Removal Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• None
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• None
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• None
05	Licence Type = Pipeline **AND** Sum of all Segment Lengths for the segments > 40 km	• None
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• None
27	Material Type = Stainless Steel	• None
27B	Material Type = Aluminum	• None
75	Large Permanent Watercourse **OR** Small Permanent Watercourse associated with segment(s) = Yes	• None
77	Do any of the existing registry segments associated with this application cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, converted from the Ministry's legacy database; and (2) Has no system records regarding watercourses. = Yes	• None
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended)
91	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended)

		• Engineering Assessment (recommended)

Note: There are no mandatory attachments for a removal application at the time of submission. If the removal application goes non-routine for further review by an ER SME, they may require additional documents to be submitted before they are able to complete their review. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

15 Field Work Notification

15.1 Scope

This section outlines how to submit a Field Work Notification for construction, pressure testing, Abandonment, Discontinuation, and Repairs associated with a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998.*

15.1.1 Prior to Reporting

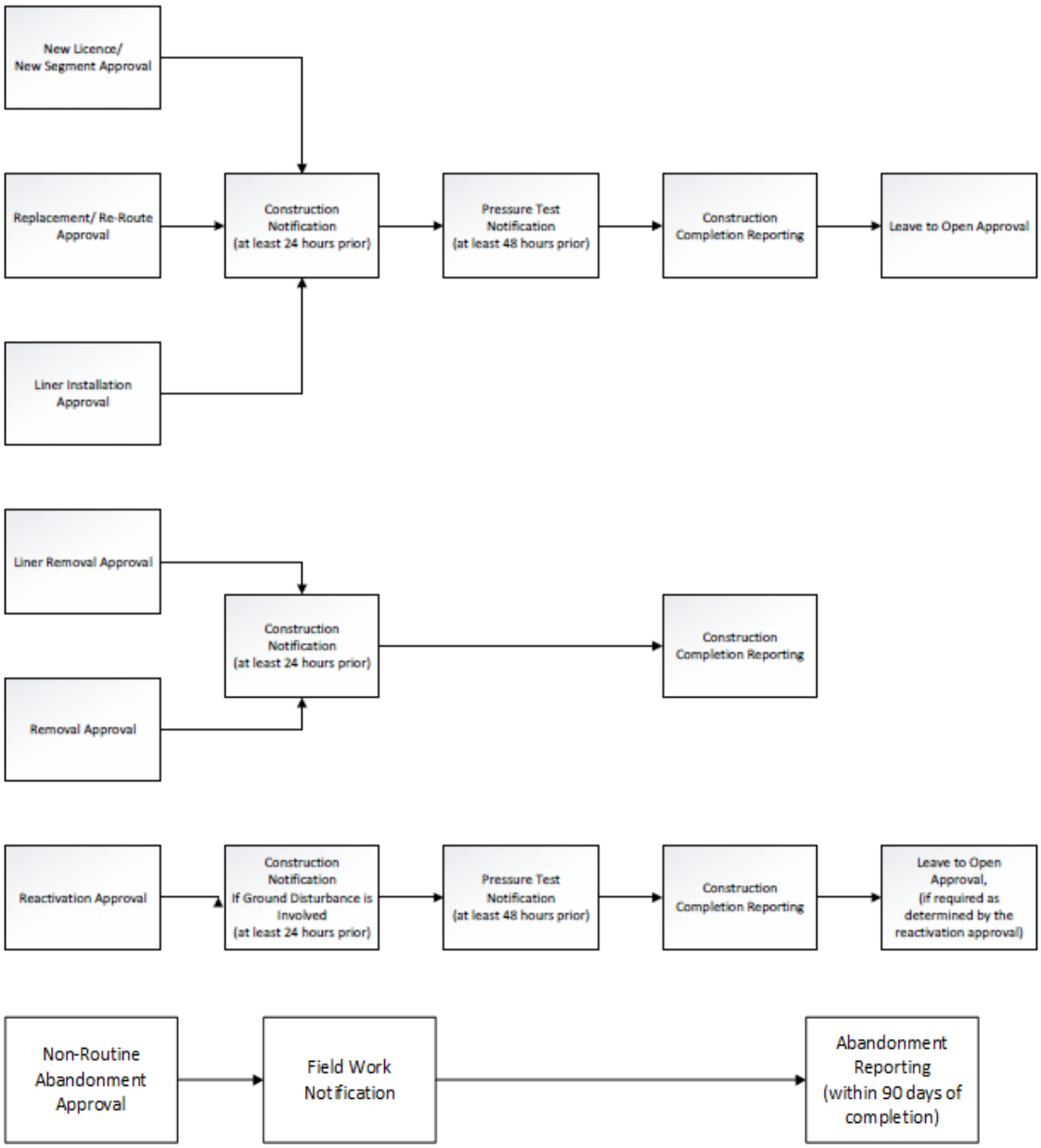
To submit a Field Work Notification for construction or pressure testing, there must be an approval associated with the licence for either:

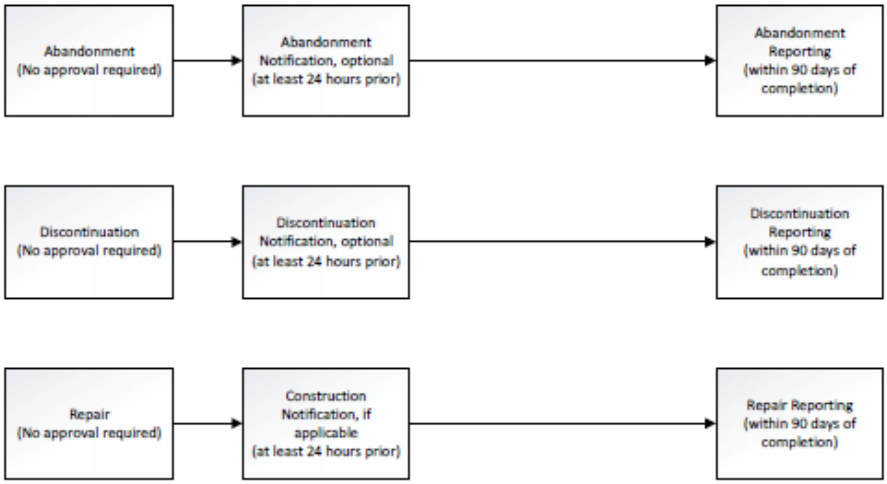
- New Licence
- New Segment onto an Existing Licence
- Replacement
- Re-Route
- Reactivation
- Removal
- Liner Installation
- Liner Removal
- Abandonment

There is no approval required prior to submitting a Routine Abandonment, Discontinuation or reporting a Repair Field Work Notification as the completed work will be submitted through IRIS within the timelines outlined in Chapter 5.3 of Directive PNG034.

Figure 15.1 outlines the Field Work Notification sequence relative to the different pipeline application/reporting processes:

Figure 15.1: Notification Sequence for Pipeline Business Processes





After an approval has been issued approving the following field work, the licensee notifies ER prior to the commencement of construction in accordance with Chapter 3.3 of Directive PNG034 for:

- New Licence
- New Segment onto an Existing Licence
- Replacement
- Re-Route
- Reactivation
- Removal
- Liner Installation
- Liner Removal
- Non-Routine Abandonment

The licensee notifies ER at least 2 business days prior to the commencement of the pressure testing of the segment(s) in accordance with Chapter 2.5.2 of Directive PNG034 for:

- New Licence
- New Segment onto an Existing Licence
- Replacement
- Re-Route
- Liner Installation
- Reactivation (If applicable)

The licensee can optionally notify ER prior to the commencement of the following field work in accordance with Chapter 5.3 of Directive PNG034 for:

- Repair (optional)
- Routine Abandonment (optional)

- Discontinuation (optional)

Note: A Field Work Notification cannot be submitted after an applicant has completed a Construction Completion Report on a segment. Therefore, the applicant provides a Field Work Notification for construction and pressure tests prior to submitting a Construction Completion Report for the segment.

15.1.2 Post Reporting

After the Field Work Notification has been submitted for 'Construction – New' and 'Pressure Test – New' the segment's status will be changed to 'Under Construction – New'. After the Field Work Notification has been submitted for 'Construction – Replacement, Re-Route, Liner Installation, Liner Removal, Reactivation, or Removal' or 'Pressure Test – Replacement, Re-Route, Liner Installation, or Reactivation' the segment's status will be changed to 'Under Construction – Amendment'.

Field Work Notifications allows ER to deploy staff to observe and/or inspect the construction and/or pressure testing of the segment(s) if the risk score is high enough. Therefore, if the construction or pressure test did not take place based on the date of the notification due to unforeseen causes, the applicant will withdraw the notification and resubmit it with corrected information prior to the start time outlined within the submitted Field Work Notification.

If the Field Work Notification requires an ER inspection, the ER representative who will be coming onsite will call prior to leaving to ensure that the field work is still commencing as planned.

15.2 Submission Details

You can select multiple segments within a single Field Work Notification if there is an approval associated with the Field Work Notification type selected. In addition, multiple notifications can be submitted for a single approval. If there is no approval associated with the Field Work Notification type selected, no segments will appear selectable. Therefore, to submit a Field Work Notification related to construction or pressure testing, an approval must have a status of 'active' or 'in progress' (e.g., no construction completion report has been submitted for the approval).

15.2.1 Data Attributes Associated with a Field Work Notification

Table 15.1 outlines the data attributes associated with a Field Work Notification.

Table 15.1: Data Associated with Field Work Notifications

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Notification Type	The type for notification is selected from the pre-populated drop-down list below: • Construction – New • Construction – Replacement • Construction – Re-Route • Construction – Liner Installation • Construction – Liner Removal • Construction – Removal • Construction – Reactivation • Pressure Test – New • Pressure Test – Replacement • Pressure Test – Re-Route • Pressure Test – Liner Installation • Pressure Test – Reactivation • Discontinuation • Abandonment • Repair	Yes
Scheduled Dates of Work – Start Date	The date when the field work is scheduled to begin.	Yes
Scheduled Dates of Work – End Date	The date when the field work is scheduled to end.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
ER Field Office	The relevant area of field office for the associated notification type will be selected from a pre-populated drop down list: [1] • Lloydminster • Kindersley • Estevan • Swift Current	Yes
Additional Information	The applicant may provide additional details pertaining to the notification.	No
Field Contact Name	Full name of the field contact person.	Yes
Field Contact Email	Email address for the field contact person.	Yes
Field Contact Telephone Number	Telephone number of the field contact person.	Yes

Field Contact Telephone Extension	Extension number, if applicable, for the field contact person.	No
Additional Information for Pressure Tests [2]		
Pressure Test Information – Test Location	The LSD land location where the pressure testing procedure is planned to take place. This is used to inform ER staff in the event of an onsite inspection.	Yes
Pressure Test Information – Test Medium	The type of medium being used to conduct the pressure test will be selected from a pre-populated drop-down list as outlined in Section 2.5.8	Yes
Pressure Test Information – Start Time	The time of day that the pressure testing procedure is expected to begin. This is used to inform ER staff in the event of an onsite inspection.	Yes
Pressure Test Information – Test Duration	The length of time (hours) that the pressure testing procedure is expected to take. This is used to inform ER staff in the event of an onsite inspection.	Yes

[1] If the segment spans more than one an one area of field office, please select the one with the larger portion of the segment.

[2] If the Field Work Notification is for a Pressure Test (New, Replacement, Re-Route, Liner Installation, Reactivation), some pressure test information will have to be provided along with all other mandatory information for a Field Work Notification. If the Field Work Notification is for Construction (New, Replacement, Re-Route, Liner Installation, Liner Removal, Removal, Reactivation), Abandonment, Discontinuation, or Repair, this section will not appear on the screen as the data is not required.

15.2.2 Disclosure Questions

There are no disclosure questions related to the Field Work Notification reporting process.

15.3 Risk Rules and Associated Documents

There are no risk rules, validation rules, or documents related to a Field Work Notification. If the Field Work Notification obtains a high enough score, a field inspection by ER staff may occur, as outlined in Section 15.4.

15.4 Scores Assigned to Field Work Notifications

ER may deploy staff to observe and/or inspect the construction and/or pressure testing for the segment(s) depending on the risk score assigned to the Field Work Notification submitted. IRIS evaluates the parameters and assigns a score based on the submitted Field Work Notification, as outline in Table 15.2, to determine whether the Field Work Notification submission results in an ER inspection.

Table 15.2: Scores Assigned to Field Work Notifications

Rule Name	Description	Score
Proposed MOP	Proposed MOP ≤ 4,964 kPa	0
	4,964 < Proposed MOP ≤ 9,930 kPa	30
	Proposed MOP > 9,930	50
Event Notification Type	Construction – New	30
	Pressure Test – New	51
	Construction - Replacement	0
	Pressure Test – Replacement	51
	Construction - Re-Route	0
	Pressure Test – Re-Route	51
	Construction - Liner Installation	10
	Pressure Test – Liner Installation	51
	Construction - Reactivation without Ground Disturbance	-120
	Construction - Reactivation with Ground Disturbance	30
	Pressure Test – Reactivation	51
	Construction - Removal	-120
	Construction - Liner Removal	-120
	Discontinue	0
	Abandonment	-120
	Repair	0
Segment Length	Segment Length ≤ 1 km	0
	1 km < Segment Length ≤ 5 km	10
	Segment Length > 5 km	29
Pipe Material	Steel	10
	Composite	50
	Aluminum	100
	Polyethylene	50
	Fibreglass	50
Licensed Substance Qualifier	Butane	50
	Ethylene	50
	Propane	50
	Pentanes	50
	Ethane Liquid	50
	Condensate	10
	Diesel Fuel	50
	Gasoline	50
	Heating Oil	10
	Hydrocarbon Diluents	10
	Kerosene	30
	Solvents	30
	Ammonia Liquid	100
	Methanol	30

	Polymer	30
	Sulphur	30
	Carbon Dioxide Gas	100
	Carbon Dioxide Liquid	100
	Air	30
	Ammonia Gas	200
	Ethane Gas	50
	Helium	50
	Hydrogen	50
	Nitrogen	30
	Steam	30
	Crude Oil – Blended and Synthetic	10
	Fresh Water	0
	Fuel Gas	10
	Natural Gas	10
	Oil Well Effluent	30
	Produced Water	10
	Sour Natural Gas	50
Class Location	Class 1	10
	Class 2	100
	Class 3	100
	Class 4	100
Watercourse Type	Large Permanent	250
	Small Permanent (Fish Bearing)	250
	Small Permanent (Non-Fish Bearing)	100
	Intermittent	75
	No Watercourse Crossing	0
H_2S Concentration	H_2S Concentration ≤ 10 mol/kmol	0
	H_2S Concentration > 10 mol/kmol	30

A Field Work Notification with a score of 150 points will result in a field inspection from the appropriate ER field office, while a score of 250 or greater will result in a field inspection from the Regina office.

16 Construction Completion Report

16.1 Scope

This section outlines how to report construction completion on a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998*.

The licensee reports the conformance of their project through the Construction Completion report process in IRIS for:

- New Licence
- New Segment on an Existing Licence
- Replacement
- Re-Route
- Reactivation if a Leave to Open approval is not issued with the Reactivation approval.
- Removal
- Liner Installation
- Liner Removal

When the design (segment details) or route of a proposed segment(s) is altered (obtained new, unplanned right of way) during field work procedures, the licensee declares that the segment was not built as planned which may result in obligations placed on the segment.

16.1.1 Prior to Reporting

After an approval has been issued for a New Licence, New Segment, Liner Installation, Liner Removal, Removal, Replacement, Re-Route, or Reactivation (if applicable). The following steps will be taken by the applicant:

- Submit a Field Work Notification for 'Construction' in accordance with Chapter 3.3 of Directive PNG034; and,
- Submit a Field Work Notification for 'Pressure Test' in accordance with Chapter 2.5.2 of Directive PNG034 (if applicable).

16.1.2 Post Reporting

After the Construction Completion Report is submitted, no further action is required unless at least one of the following scenarios holds true:

- A new, unplanned right-of-way was acquired as a result of the work
  - There will be an obligation imposed on the segment to submit a new shapefile for the segment through the Segment Data Amendment application.
- Changes to your proposed plan involved changes to submitted segment data attributes
  - There will be an obligation imposed on the segment to update segment data attributes to accurately match the field work that was completed through the Segment Data Amendment application.

Submission of a Construction Completion Report will change the approval status from 'In Progress' to 'Complete'. This means that a **Field Work Notification cannot be initiated after the Construction Completion Report is submitted**. Submission of the Construction Completion Report will also update ER's registry by writing the changes approved through the application.

For example, the liner details will not be written to the Registry or seen on the Segment Details screen in IRIS until the Construction Completion Report has been submitted for the Liner Installation approval. The exception to this rule is for New Licence and New Segment, where the data will be written as soon as the approval for the New Licence or New Segment has been approved.

16.2 Submission Details

For a New Licence or New Segment approval, the construction completion is declared for each segment. For example, if there are five segments associated with the New Licence application, you can submit the Construction Completion Report for one or multiple segments associated with that submission. This allows the licensee to report construction completion at different times for different segments if not all segments under the licence will be constructed during the same time frame.

For a Liner Install, Liner Removal, Replacement, Re-Route, and Reactivation approval, the construction completion is declared for the entire approval (e.g., when you submit a Construction Completion Report it means that all work associated with the approval is complete).

16.2.1 Data Attributes Associated with the Construction Completion Report

Table 16.1 outlines the data attributes associated with a Construction Completion Report.

Table 16.1: Data Associated with Construction Completion Reporting

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Construction Completion Reporting for Pipeline Approval	The drop-down list of existing approvals (authorizations) associated with the selected licence. These approvals consist of New Licence, New Segment, Liner Installation, Liner Removal, Removal, Replacement, Re-Route, and Reactivation. Most recent approval based on the date of issuance will be listed first.	Yes
Completed As Planned? (Yes/No)	A Yes/No declaration if the field work was completed as stated and approved in the	Yes

<table>
<tr><td></td><td>associated application. This includes both the segment details and route/geometry.</td><td></td></tr>
<tr><td>Date</td><td>The date when the fieldwork was completed. The date appears as follows (e.g., construction date, completion date, etc.) depending on the selected pipeline approval:
<table>
<tr><th>Application type</th><th>Date</th></tr>
<tr><td>New licence, New Segment, Replacement/Re-Route (if new segment acquired)</td><td>Construction Date</td></tr>
<tr><td>Liner Installation</td><td>Liner Installation Date</td></tr>
<tr><td>Liner Removal</td><td>Liner Removal Date</td></tr>
<tr><td>Removal</td><td>Removal date</td></tr>
</table></td><td>Yes</td></tr>
<tr><td>Did you acquire new, unplanned right-of-way, as a result of this work? (Yes/No)</td><td>A Yes/No declaration if the segment(s) acquired a new unplanned right-of-way other than what was approved in the associated application. In other words, the applicant declares if the proposed spatial data during the application process has changed from what was approved. This data field only applies when built as planned is answered No for New Licence and Replacement/Re-Route application and is, therefore, displayed conditionally. If displayed, this data field is required.
• If answered Yes in case of a New Licence application, the licensee submits a Data Amendment application with the correct spatial information for the segment(s) through a shapefile.
• If answered Yes in case of a Replacement/Re-Route application, the associated Replacement/Re-Route approval is rescinded allowing the applicant to re-apply the Replacement/Re-Route application with the correct spatial information for the segment.
• If answered No, no new spatial data is required.</td><td>Conditional</td></tr>
<tr><td>Do the changes to your proposed plan involve changes to submitted licence or segment data attributes? (Yes/No)</td><td>A Yes/No declaration if the proposed segment data attributes have changed from what was approved in the application.
This data field only applies when built as planned is answered No for New Licence and Replacement/Re-Route application and is, therefore, displayed conditionally. If displayed, this data field is required.</td><td>Conditional</td></tr>
</table>

Have you fulfilled the obligation for Watercourse Installation Method? (Yes/No)	A Yes/No declaration if the operator has fulfilled the watercourse installation method obligation that was placed on the segment upon approval. [1]	Conditional
Have you fulfilled the obligation for Watercourse Setback? (Yes/No)	A Yes/No declaration if the operator has fulfilled the watercourse setback method obligation that was placed on the segment upon approval. [2]	Conditional

[1] This data field only applies when there is a watercourse installation method obligation on the segment and is, therefore, displayed conditionally. If displayed, this data field is required.

[2] This data field only applies when there is a watercourse setback obligation on the segment and is, therefore, displayed conditionally. If displayed, this data field is required.

16.2.2 Disclosure Questions

There are no disclosure questions related to the Construction Completion Reporting process.

16.3 Risk Rules and Associated Documents

There are no risk rules or documents related to a Construction Completion Report.

17 Licence Data Amendment

17.1 Scope

This section outlines how to amend licence level data for a pipeline segment(s) in Saskatchewan regulated under *The Pipelines Act, 1998*. Through this application, the applicant can either:

- Update missing data on your Pipeline Licence; or,
- Amend existing data on your Pipeline Licence

Details regarding licence level data can be found in Section 2.2.2 of this document.

17.1.1 Prior to Applying

Prior to applying to update missing data on your pipeline licence there must be licence level data that was not populated within the initial licensing process, and there cannot be any outstanding approvals or draft applications related to any segments under the licence.

- This includes applications that are currently under review by an ER SME; and,
- Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

Prior to applying to amend existing data on your pipeline licence there cannot be any outstanding approvals or draft applications related to any of the segments under the licence.

- This includes applications that are currently under review by an ER SME; and,
- Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

In both scenarios, if the update or amendment to the licence level data is not applicable for all segments under the licence, a Licence Split must occur prior to initiating the Licence Data Amendment application.

17.1.2 Post Approval

Once the Licence Data Amendment has been approved, no further action is required and the updated or amended licence level data will be immediately written to the Registry and can be seen on the Licence Details screen in IRIS.

17.2 Submission Details

Through this application, the applicant can either:

- Update missing data on your Pipeline Licence; or,
- Amend existing data on your Pipeline Licence

The licence data that can be updated includes:

- Licence Substance;
- Substance Subtype;
- Gas Phase Indicator; and,
- Maximum H_2S Concentration

The licence data that can be amended includes:

- Licence Type;
- Licence Substance;
- Substance Subtype;
- Gas Phase Indicator; and,
- Maximum H_2S Concentration

If Licence Data Amendment application is to update missing data on the pipeline licence, there are no disclosure questions, attachments, or risk rules ran on the submission. Any attribute that has a non-null value will be presented as read-only. This means that the Licence Data Amendment to update missing data will always be routinely approved and the data immediately written to the Registry upon submission. This application process will be used for licences issued prior to July 15, 2019, retroactive flowline licences, and retroactive pipeline licences that was licenced with a discontinued or abandoned status. In all of those scenarios, the gas phase

indicator and H_2S Concentration is/was not required to obtain a licence. Therefore, in most cases those data attributes will be null.

If a Licence Data Amendment application is to amend existing data on the pipeline licence, there are disclosure questions, attachments, and risk rules ran on the submission. This means that the Licence Data Amendment to amend existing data may go non-routine for further review by an ER SME. One the Licence Data Amendment to amend existing data is approved, the data will be immediately written to the Registry.

It is expected that the licensee would apply to amend the substance and licence type prior to initiating the work in the field. If the licensee was converting a flowline to a pipeline in the field, they would apply prior to initiating the work through the Licence Data Amendment application. Within the Licence Data Amendment application, they would include the following documentation as outlined by policy in Directive PNG034:

- Chapter 2.5.1 outlines the requirements for submission of the results of the pressure test data for pipelines other than flowlines; and,
- Chapter 5.4 outlines the requirements for a Survey for pipelines. This would only have to be attached if it was a retroactively licenced flowline that is being converted into a pipeline, since a Survey is not required for retroactive flowline licences. If it was a flowline licence that was applied for through the 'New Licence' or 'New Segment' application process, a Survey would have already been provided, therefore, is not required.
- Appendix 1 outlines the requirements for shapefile to be submitted for retroactive licences for designated pipelines other than flowlines. The shapefile requirement would only apply if it was a retroactively licenced flowline that is being converted into a pipeline, since a shapefile is not required for retroactive flowline licences. If it was a flowline licence that was applied for through the 'New Licence' or 'New Segment' application process, a shapefile would have already been provided, therefore, is not required.
    - If applicable, after the Licence Data Amendment approval to convert the flowline to a pipeline, the applicant would submit a Segment Data Amendment application to provide the shapefile.

17.2.1 Data Attributes Associated with the Licence Data Amendment Application

Table 17.1 outlines the data attributes associated with a Licence Data Amendment application.

Table 17.1: Data Associated with Licence Data Amendment Applications

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
What are you applying for?	Define the type or intention of data amendment submission between the following: • Update Missing Data on this Licence[1] • Amend Existing Data on this Licence[2]	Yes
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Amendment Type	Select one or more of the following licence level attributes that the applicant intends to amend: • Licence Type (Pipeline/Flowline) • Licence Substance • Substance Subtype • Maximum H_2S • Gas Phase Please refer to Section 2.2.2 for description	Yes

[1] Used to provide values to Null attributes and DOES NOT evaluate any risk rules. Thus, the submission will always be routinely approved, and the changes applied immediately. Any attribute that has a non-null value will be presented as read-only.

[2] Used to add/update any attribute and the submission WILL evaluate risk rules. The submission may result in a non-Routine application that requires review by ER SME's. Upon approval the data updates will be applied to the pipeline data entities.

17.2.2 Disclosure Questions

Table C.0.2 outlines the disclosure questions that will be populated for Licence Data Amendment applications when amending existing data on your pipeline licence.

17.3 Risk Rules and Associated Documents

Table 17.2 summarizes the risk rules used on the data provided within the application to determine when the Licence Data Amendment application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 17.2 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 17.2: Risk Rules and Associated Documents for Licence Data Amendment Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
01c	Licence Type = Pipeline **AND** [Licence Substance = Miscellaneous Gases – CO_2 **OR** Miscellaneous Liquids – CO_2 **OR** Salt Water]	• Survey (recommended) • Gas Analysis (recommended) • Manufacturer Pipe Specification (recommended)
03a	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1 **AND** [Segment Status = To Be Constructed **OR** Under Construction – New **OR** Under Construction – Amendment **OR** Operating]	• Gas Analysis
04a	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1 **AND** [Segment Status = To Be Constructed **OR** Under Construction – New **OR** Under Construction – Amendment **OR** Operating]	• Gas Analysis
06A	Material Type has a material limitation **AND**	• None

	[Segment Status = To Be Constructed **OR** Under, Construction – New **OR** Under Construction – Amendment **OR** Operating **OR** Discontinued **OR** Abandoned]	
17A	Maximum H_2S Amended **AND** Requires Sour Service Design= Changes to Yes as a result of amendment to Maximum H_2S **AND** Designed for Sour Service = No **AND** [Segment Status = To Be Constructed **OR** Under Construction – New **OR** Under Construction – Amendment **OR** Operating]	• Gas Analysis (recommended) • Design Pressure Calculation (recommended)
18	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation (recommended)
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended)
91B	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended) • Engineering Assessment (recommended)

Note: There are no mandatory attachments for a Licence Data Amendment application at the time of submission. If the Licence Data Amendment application goes non-routine for further review by an ER SME, they may require additional documents to be submitted before they are able to complete their review. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

18 Segment Data Amendment

18.1 Scope

This section outlines how to amend segment level data attribute, segment geometry, and describes the present allowable practice to complete a flow reversal procedure for a pipeline segment(s) in Saskatchewan regulated under *The Pipelines Act, 1998*. Through this application, the applicant can either:

- Update missing data on your Pipeline Segment; or,
- Amend existing data on your Pipeline Segment

Details regarding segment level data can be found in Section 2.3.2 of this document.

18.1.1 Prior to Applying

Prior to applying to update missing data on your pipeline segment there must be segment level data that was not populated within the initial licensing process, and there cannot be any outstanding approvals or draft applications related to the segment in question.

- This includes applications that are currently under review by an ER SME; and,
- Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

Prior to applying to amend existing data on your pipeline segment there cannot be any outstanding approvals or draft applications related to the segment in question.

- This includes applications that are currently under review by an ER SME; and,
- Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

In both scenarios, if the update or amendment to the segment level data is not applicable for the entire segment (with the exception of pipe specification changes), a Segment Split must occur prior to initiating the Segment Data Amendment application.

18.1.2 Post Approval

Once the Segment Data Amendment has been approved, no further action is required and the updated or amended segment level data will be immediately written to the Registry and can be seen on the Segment Details screen in IRIS. If you fulfilled an obligation relating to shapefile or segment data within the Segment Data Amendment application, the obligation will be shown as fulfilled after the approval has been issued.

18.2 Submission Details

Through this application, the applicant can either:

- Update missing data on your Pipeline Segment; or,
- Amend existing data on your Pipeline Segment

The licence data that can be **updated** includes all data attributes listed in Sections 2.3.2.1 through 2.3.2.3 of this document that have a null value associated with them. Any attribute that has a non-null value will be presented as read-only.

If Licence Data Amendment application is to update missing data on the pipeline segment, there are no disclosure questions, attachments, or risk rules ran on the submission. This means that the Segment Data Amendment application to update missing data will always be routinely approved and the data immediately written to the Registry upon submission. This application process will be used for licences issued prior to July 15, 2019, retroactive flowline licences, and retroactive pipeline licences that was licenced with a discontinued or abandoned status. In all of those scenarios, not all segment data is/was required to obtain a licence. Therefore, in most cases there will be null data attributes associated with the segment.

The licence data that can be **amended** includes all data attributes listed in Sections 2.3.2.1 through 2.3.2.3 of this document.

If a Segment Data Amendment application is to amend existing data on the pipeline segment, there are disclosure questions, attachments, and risk rules ran on the submission. This means that the Segment Data Amendment application to amend existing data may go non-routine for further review by an ER SME. Once the Segment Data Amendment application to amend existing data is approved, the data will be immediately written to the Registry. Within the Segment Data Amendment application to amend existing data, you can fulfill the following obligations:

- Construction Completion Report Spatial Data – by uploading a new shapefile;
- Construction Completion Report Pipe Segment Data – by changing one or more segment data attributes listed in Sections 2.3.2.1 through 2.3.2.3 of this document; and,
- Outside Right of Way – by uploading a new shapefile.

Please note that if you want to amend the approved MOP to either increase or decrease the value, a Leave to Open application will be submitted.

It is expected that the licensee would apply to reverse the flow direction (flow reversal) prior to initiating the work in the field. To reverse the flow direction, the licensee would submit the Segment Data Amendment application which includes:

- A new shapefile drawn that represents the new flow direction. This shapefile will be uploaded within the application; and,
- The from and to infrastructure types updated.

18.2.1 Data Attributes Associated with the Segment Data Amendment Application

Table 18.1 outlines the data attributes associated with a Segment Data Amendment application.

Table 18.1: Data Associated with a Segment Data Amendment Application

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Industry Application Ref #	Please refer to Section 2.4.2 for description.	No
What are you applying for?	Define the type or intention of data amendment submission between the following: • Update missing data on this Segment • Amend existing data on this Segment • Used to add/update any attribute and the submission WILL evaluate risk rules. The submission may result in a non-Routine application that requires review by ER SME's. Upon approval the data updates will be applied to the pipeline data entities. In specific circumstances, a Segment – Data Amendment can also be used to fulfill an existing obligation.	Yes
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Amendment Type	Select one or more of the following licence level attributes that the applicant intends to amend: • Line Pipe Specification as defined in Section 2.3.2.1. • Free Standing Liner Specification (if applicable) as defined in Section 2.3.2.2. • Segment Details as defined in Section 2.3.2.3. • Geospatial data (shapefile)	Yes

NOTE: If the applicant wanted to **reverse the flow** of their segment (flow reversal), they would submit a Segment Data Amendment and populate the following:

- Upload a new shapefile that outlines the reversed start and end locations; and,
- Amend the from and to infrastructure types.

18.2.2 Disclosure Questions

Table C.0.3 outlines the disclosure questions that will be populated for Segment Data Amendment applications when amending existing data on your pipeline segment.

18.3 Risk Rules and Associated Documents

Table 18.2 summarizes the risk rules used on the data provided within the application to determine when the Segment Data Amendment application will be considered non-routine and may require some or all additional documentation subject to ER review. To confirm if the rules found in Table 18.2 are active, please refer to the Business Rules Table under the Support tab in IRIS.

Table 18.2: Risk Rules and Associated Documents for Segment Data Amendment Applications

Rule #	Risk Driven Data Element(s)	Additional Documentation
01b	Licence Type = Pipeline **AND** Licence Substance = Salt Water **AND** To Infrastructure Type ≠ Injection/Disposal Facility **AND** MOP > 2,000 kPa	• Manufacturer Pipe Specification (recommended) • Survey (recommended)
02	Licence Type = Pipeline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis (recommended)
03	Licence Type = Flowline **AND** Maximum H_2S > 10 mol/kmol **AND** Class Location ≠ 1	• Gas Analysis (recommended)
04	Class Location = 3, 4 **AND** Licence Substance ≠ Fresh Water	• Manufacturer Pipe Specification (recommended) • Survey (recommended)
05	Licence Type = Pipeline **AND** Sum of all Segment Lengths for the segments > 40 km	• Survey (recommended)
06-07-08b	[Segment Status = To Be Constructed **OR** Under Construction – New **OR** Under Construction – Amendment **OR**	• Manufacturer Pipe Specification (recommended)

	Operating] **AND** Material Type has a material limitation	
09	Other Material Standard = Populated **OR** Other Material Grade = Populated	• Manufacturer Pipe Specification (recommended) • Design Pressure Calculation (recommended)
11	[Material Type = Steel **OR** Material Type = Stainless Steel **OR** Material Type = Aluminum] **AND** [External Protection = Uncoated **OR** Other]	• Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)
12	Cover Depth < 0.6 m	• Typical crossing profile(s) (recommended) • Engineering Assessment (recommended)
17	Designed for Sour Service = No **AND** Requires Sour Service Design = Yes	• Gas Analysis (recommended) • Design Pressure Calculation (recommended)
18	Has the proposed segment(s) been designed to meet pressure limits of the system, including downstream components? = No	• Design Pressure Calculation (recommended)
24	Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guidelines? = No	• Design Pressure Calculation (recommended) • Manufacturer Pipe Specification (recommended) • Engineering Assessment (recommended)
27	Material Type = Stainless Steel	• Manufacturer Pipe Specification (recommended) • Design Pressure Calculation (recommended)
27B	Material Type = Aluminum	• Manufacturer Pipe Specification (recommended) • Design Pressure Calculation (recommended)
70	Watercourse Type = Large Permanent	• HDD Feasibility Report[1] • Hydro-fracture Analysis[1] • HDD Crossing Profile[1] • Drilling Execution Plan[1] • Geotechnical Report[1]

71	Watercourse Type = Small Permanent	• HDD Feasibility Report[1] • HDD Crossing Profile[1] • Drilling Execution Plan[1] • Geotechnical Report[1]
73	Watercourse Type = Large Permanent **OR** Watercourse Type = Small Permanent **AND** HDD Boring = No	• None
74	Watercourse Type = Large Permanent **OR** Watercourse Type = Small Permanent **AND** Deferred documents = Yes	• None
90A	Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended)
91B	Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, *Oil and gas pipeline systems*? = No	• Drawings, Diagrams & Plans (recommended) • Survey (recommended) • Engineering Assessment (recommended)
80	Fulfilling a Construction Completion Obligation. [2]	• Survey
81	Material Type = Amended	• None

[1] In accordance with Chapter 4 of Directive PNG034, the documentation for watercourse crossings is not required at the time of submission but can be deferred and submitted prior to submission of the Field Work Notification for construction. This includes HDD Feasibility Report with Hydro-Fracture Analysis, HDD Feasibility Report, Geotechnical Report, Drilling Execution Plan, HDD Crossing Profile, and/or Pullback Detail.

[2] If you are fulfilling a Construction Completion Obligation for Spatial Data a Survey will be required, however, if you are fulfilling a Construction Completion Obligation for Segment Data then a Survey is not required.

Note: There are no mandatory attachments for a Segment Data Amendment application at the time of submission. If the Segment Data Amendment application goes non-routine for further review by an ER SME, they may require additional documents to be submitted before they are able to complete their review. If the document type is 'recommended' it indicates that an ER SME who is reviewing the non-routine may ask for the document during their review.

19 Licence Split

19.1 Scope

This section outlines how to split a pipeline licence in Saskatchewan regulated under *The Pipelines Act, 1998.* Splitting a licence means moving one or more segments to a New Licence or an existing licence that has the same licence level data.

19.1.1 Prior to Reporting

Prior to splitting a licence:

- There cannot be any outstanding approvals or draft applications related to any segments under the licence you wish to split.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- If an applicant wishes to transfer a section of a segment, the applicant splits that segment using Segment Split process prior to carrying out the Licence Split process to move that segment.
- If you are moving the segment(s) to an existing licence, the licence for which you are moving them to will have the same:
  - BA;
  - Licence Type (pipeline/flowline);
  - Licence Substance;
  - Substance Subtype;
  - Gas Phase Indicator; and,
  - Maximum H_2S concentration of the segment(s) being moved must be less than or equal to the maximum H_2S concentration of the existing licence.

19.1.2 Post Reporting

Once the licence is split, no further action is required. The segments involved in the submission will be either moved to a new or existing licence.

The attachments relating to the licence will not be moved/copied to the newly created or existing licence. Therefore, if there are any documents that you feel are crucial to save with the newly created licence or existing licence, the licensee would save the documents within the 'Attachments' tab found on the Licence Detail screen in IRIS.

19.2 Submission Details

Through this submission, the applicant can either:

- Move segments to an existing licence; or,
- Move segments to a new licence

If the applicant moves the segment(s) to a new licence, the following actions will occur immediately after submission:

- Licence level data attributes get copied over to the new licence;
- A new licence number is issued by IRIS;
- A new licence issuance date is recorded;
- A new segment number is assigned to the moved segment(s) in the incremental order on the new licence that it gets moved to; and,
- The Segment ID remains unchanged; and,
- The newly created licence will have a Source Licence Number associated with it

If the applicant moves the segment(s) to an existing licence, the following actions will occur immediately after submission:

- The licence level data of the existing licence number will be inherited by the newly moved segments since the Licence Split cannot occur unless all licence level data is identical between the two licences;
- A new segment number is assigned to the moved segment(s) in the incremental order on the existing licence that the segments got moved to (e.g., will continue after the last segment number found under the existing licence);
- The Segment ID remains unchanged;
- The licence for which the segments were moved to will have a Source Licence Number associated with it.

The Source Licence Number is a way to reference where some or all the segments under the licence came from.

Note: When segments are moved the Licence from which the Segments are split will have missing segment number within it. For example, if there were 5 segments under PL-12345 and through the Licence Splitting process, segments 3 and 4 were moved to a new licence, PL-00000001. After the Licence Split is complete, PL-12345 will have segments 1, 2, and 5 associated with it, but will not have segments 3 and 4. The newly created licence, PL-00000001, will renumber the segments 3 and 4 to 1 and 2 respectively without changing the segment ID associated with each segment (e.g., SK PS 00001234).

19.2.1 Data Attributes Associated with the Segment Split

Table 19.1 outlines the data attributes associated with a Licence Split.

Table 19.1: Data Associated with a Licence Split Application

Data Element	Description	System Required Data
Licence #	Please refer to Section 2.2.2 for description.	Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Will you be moving the segment(s) to an existing licence? (Yes/No)	A Yes/No declaration of whether the applicant intends to split this licence and move the selected segments to a new licence or an existing licence owned by the same Licensee BA.	Yes
Industry Licence Ref #	Please refer to Section 2.2.2 for description.	No
Licence Name		No

19.2.2 Disclosure Questions

There are no disclosure questions related to the Licence Splitting process.

19.3 Risk Rules and Associated Documents

There are no risk rules or documents related to a Licence Split submission.

20 Segment Split

20.1 Scope

This section outlines how to split a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998.* Splitting a segment means creating one or more segments from the existing segment.

20.1.1 Prior to Reporting

Prior to splitting a segment:

- There cannot be any outstanding approvals or draft applications related to the segment being split.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).

20.1.2 Post Reporting

Once the segment is split, no further action is required. There will be one or two new segments created as a result of the submission.

The attachments relating to the segment will not be moved/copied to the newly created segment(s). Therefore, if there are any documents that you feel are crucial to save with the newly created segment(s), the licensee would save the documents within the 'Attachments' tab found on the Segment Detail screen in IRIS.

20.2 Submission Details

Through this submission, the applicant can either:

- Split the original segment into two segments; or,
- Split the original segment into three segments

If the applicant splits the original segment into two segments, the following actions will occur immediately after submission:

- The source segment (original segment) retains its From Infrastructure Type and gets a new To Infrastructure Type (as provided by the applicant).
- The newly created segment to the right or top of the source segment retains the To Infrastructure Type from the source segment and gets a new From Infrastructure Type (as provided by the applicant).
- The segment created to the right or top will be assigned a new Segment ID, segment number, and segment issuance date by the system.
- Line Pipe Specification records get copied to the newly created segment.
- Free Standing Liner Specification records get copied to the newly created segment (if applicable)
- If the source segment is "Operating", the last active Leave to Open record gets copied to the newly created segment.
- All unfulfilled obligations of the source segment get copied to the newly created segment.
- Pipe Spec Changes and Repairs stay with the source segment or get moved to the newly created segment based on the location of the coordinates on the segment with respect to the location of the pipe specification and/or repair coordinate.
- If there are multiple pressure tests records associated with the source segment, the applicant has the option of creating a copy of the pressure test records for the newly created segment.
- The newly created segment will have a Source Segment ID associated with it.

If the applicant splits the original segment into three segments, the following actions will occur immediately after submission:

- The source segment (original segment) retains its From Infrastructure Type and gets a new To Infrastructure Type (as provided by the applicant).
- The new segment in the middle gets a new From Infrastructure Type and To Infrastructure Type (as provided by the applicant).
- The new segment to the far right or far top of the source segment retains the To Infrastructure Type from the source segment and gets a new From Infrastructure Type (as provided by the applicant).
- The segments created to the right or top will be assigned new Segment IDs, segment numbers, and segment issuance date by the system.
- Line Pipe Specification records get copied to the newly created segments.
- Free Standing Liner Specification records get copied to the newly created segments (if applicable)
- If the source segment is “Operating”, the last active Leave to Open record gets copied to the newly created segments.
- All unfulfilled obligations of the source segment get copied to the newly created segments.
- Pipe Spec Changes and Repairs stay with the source segment or get moved to the newly created segment based on the location of the coordinates on the segment with respect to the location of the pipe specification and/or repair coordinate.
- If there are multiple pressure tests records associated with the source segment, the applicant has the option of creating a copy of the pressure test records for the newly created segment.
- The newly created segments will have a Source Segment ID associated them.

The Source Segment ID is a way to reference where the segment originally came from/was a part of.

20.2.1 Data Attributes Associated with the Segment Split

Table 20.1 outlines the data attributes associated with a Segment Split.

Table 20.1: Data Associated with a Segment Split

Data Element	Description	System Required Data
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Will you be splitting this segment into two or three segments?	The applicant intends to split this segment into: • Split into two segments • Split into three segments	Yes
Geographic coordinate at split location(s)	The geographic coordinates (latitude, longitude) that represent the location of the split(s) on the source segment.	Yes
Infrastructure Type at the split location(s)	The Infrastructure Type at the location(s) of the split(s) on the source segment.	Yes
Industry Segment Ref #	Please refer to Section 2.3.2.3 for description.	No
Create a copy for Pressure Test records	The applicant will be provided the option to create a copy for the existing pressure test record.	Yes

20.2.2 Disclosure Questions

There are no disclosure questions related to the Segment Splitting process.

20.3 Risk Rules and Associated Documents

There are no risk rules or documents related to a Segment Split submission.

21 Licence Transfer

21.1 Scope

This section outlines how to transfer a pipeline licence in Saskatchewan regulated under *The Pipelines Act, 1998*. It is industry best practice that the transferor provides all available historical records to the transferee related to the design, construction, operation, maintenance, and integrity management program for the segment(s) under the licence.

21.1.1 Prior to Applying

Prior to applying for a pipeline licence transfer:

- The transferee and transferor should verify all license(s) being transferred as well as the segment(s) under the licence(s). If a licensee desires to transfer any segment(s) under a given licence, the current licensee must split the segment(s) to a new licence through the Licence Splitting process prior to initiating the Licence Transfer application.
- Download and populate the Schedule 'C' template found on the Pipeline Licensing Webpage. For instructions on how to populate the Schedule 'C' template, please refer to Section 23.8 of this document.
- Applicants are able to provide a Schedule 'C' transfer template in a pre-transfer liability assessment for well and facilities.

21.1.2 Post Approval

Once the Licence Transfer has been approved, no further action is required. The licence BA will be updated on the appropriate licence(s) to reflect the transfer.

21.2 Submission Details

A pipeline Licence Transfer application can entail multiple licences and can be submitted by the transferee or transferor. The applicant is required to provide a completed Schedule 'C' transfer template for pipelines or provide a previous pre-transfer liability assessment authorization, provided it is within 30 days to complete the licence transfer application process.

Additionally, the transferee will have the option to delete the transferor's Industry Licence Reference Number's and Pipeline Licence Names currently stored in IRIS. If the transferee is submitting the transfer application, these options will be provided in the Pipeline Licence Upload menu of the application. Conversely, if the transferor has submitted the application, the transferee will be provided an opportunity to delete these data fields in the Concurrent Licence Transfer Approval work item. Both the transferee and transferor will be required to confirm that the transferee has received, or will receive, all applicable and available records required under the Canadian Standard Association: Oil and Gas Pipeline Systems from the transferor by the effective date of the licence transfer.

Depending on which BA submits the transfer application, a Licence Transfer Concurrency Approval work item will be generated for the transferee or transferor to submit their approval.

21.2.1 Data Attributes Associated with a Licence Transfer Application

Table 21.1 outlines the data attributes associated with a Licence Transfer application.

Table 21.1: Data Associated with a Schedule 'C' Licence Transfer Application

Data Element	Description	Application Required Data
Application Type	Type of transfer application.	Yes
Licence Number(s)	Please refer to Section 2.2.2 for description	Yes
Transferor BA (The BA that is transferring its segments)		
From BA Name	Full name of the Business Associate (BA) transferring licences.	Yes
To BA Name	Full name of the Business Associates (BA) receiving licences.	Yes
Actual Date of Sale		Yes
Pre-Authorization Transfer?		Yes
Pre-Authorization No		Conditional
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No
Transferee BA (The BA that the segments are transferred to)		
BA Name	Full name of the Business Associate (BA) company.	Yes
BA ID	Business Associate (BA) ID of the company	Yes
Actual Date of Sale		Yes
Pre-Authorization Transfer?		Yes
Pre-Authorization No		Conditional
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No

21.2.2 Disclosure Questions

There are no disclosure questions related to the Licence Transfer application process.

21.3 Risk Rules and Associated Documents

There are no risk rules or associated documents related to a Licence Transfer.

21.4 Unlicensed Flowlines and Pipelines associated with Retroactive Licensing

Business associates who own or operate unlicensed flowlines, or previously exempt pipelines which are to be licensed as part of the four-year retroactive licensing plan may transfer their assets prior to the completion of licensing requirements. Industry operators shall follow the procedure outlined in this section and complete the transfer as described. Post approval of the transfer, from the transferor to the transferee, the unlicensed flowlines and pipelines must be included in the retroactive licensing plan of the business associate acquiring the pipelines. It is the responsibility of the transferee to ensure the assets acquired are properly licensed as per guidance provided in section 4 of this manual, pertaining to retroactive licensing. The transferor is not required to licence the flowlines or previously exempt pipelines prior to initiating a transfer application.

22 Segment Cancellation

22.1 Scope

The applicant has the option to cancel a pipeline segment in Saskatchewan regulated under *The Pipelines Act, 1998* as outlined in this section.

The system automatically cancels a pipeline segment with a status of “To be Constructed” that has not been constructed within 24 months of the segment approval date. As a result of this, the segment status changes to “Cancelled – Expired”. The system sends notifications to the operator 30 days prior to cancelling the segment, as well as, upon cancellation of a segment.

22.1.1 Prior to Applying

Prior to applying to cancel a segment:

- All outstanding approvals or draft applications related to the segment must be complete.
  - This includes applications that are currently under review by an ER SME; and,
  - Approvals for which a Construction Completion Report has not been submitted (e.g., New Licence, New Segment, Liner Install, Liner Removal, Removal, Re-Route, Replacement, and Reactivation).
- Ensuring the entire segment will be cancelled.
  - If the cancellation only applies to a portion of the segment, make the appropriate segments through the Segment Splitting process prior to initiating the Segment Cancellation application.

22.1.2 Post Approval

Once the Segment Cancellation has been approved, no further action is required. The segment(s) will have a status of 'Cancelled – Not Constructed', 'Cancelled – Non-Regulatory', or 'Cancelled – Duplicate Licence' after the cancellation is approved. This means that no further pipeline business processes can be initiated for the segments with a 'Cancelled' status.

22.2 Submission Details

The Segment Cancellation application allows for the cancellation of multiple segments under a given pipeline licence.

22.2.1 Data Attributes Associated with the Segment Cancellation Application

Table 22.1 outlines the data attributes associated with the Segment Cancellation application.

Table 22.1: Data Associated with a Segment Cancellation Application

Data Element	Description	Application Required Data
Licensee BA	Please refer to Section 2.2.2 for description.	Yes
Licence #		Yes
Segment ID	Please refer to Section 2.3.2.3 for description.	Yes
Reason for Cancellation	Define the type of segment cancellation between the following: • Cancelled – Not Constructed • Cancelled – Non-Regulatory • Cancelled – Duplicate Please refer to Section 2.3.1 for description.	Yes
Contact Name	Please refer to Section 2.4.2 for description.	Yes
Email Address		Yes
Business Phone		Yes
Alternate Phone		No

22.2.2 Disclosure Questions

There are no disclosure questions related to the Segment Cancellation application process.

22.3 Risk Rules and Associated Documents

There are no risk rules or associated documents related to a Segment Cancellation, however, it may be beneficial to provide evidence as to why the segment is being canceled along with the application when it is sent to the ER Service Desk.

23 Supplementary Material

The following sections will act as supplementary material to the following topics:

- Sour Service Design – diagrams to demonstrate how the system determines if the pipe is required to be designed for sour service, depending on the material type associated with the pipe.
- Replacement Scenarios – illustrations and tables to help the applicant determine if their Replacement requires segment splitting or not, as well as how to submit the Replacement data (e.g., through Replacement Template or shapefile).
- Re-Route Scenarios – illustrations and tables to help the applicant determine how to structure the Re-Route data through the submission of a shapefile.
- Populating the Segment Data Template – instructions on how to populate the Segment Data Template that can be optionally used within the New Licence/New Segment application process to upload data associated with each segment.
- Populating the Pipe Specification Change Template – instructions on how to populate the Pipe Specification Change Template that can be optionally used within the New Licence/New Segment application process to upload pipe specification changes due to crossings (e.g., water, rail, road).
- Populating the Replacement Template – instructions on how to populate the Replacement Template that can be optionally used within the Replacement application if the Replacement is in-kind and does not require a new construction date.
- Populating the Retroactive Licensing Template – instructions on how to populate the Retroactive Licensing Template for both previously exempt pipelines and flowlines.

23.1 Sour Service Diagrams

The system uses the logic outline in Figures 23.1-23.3 to determine if the pipe needs to be designed to meet sour service requirements.

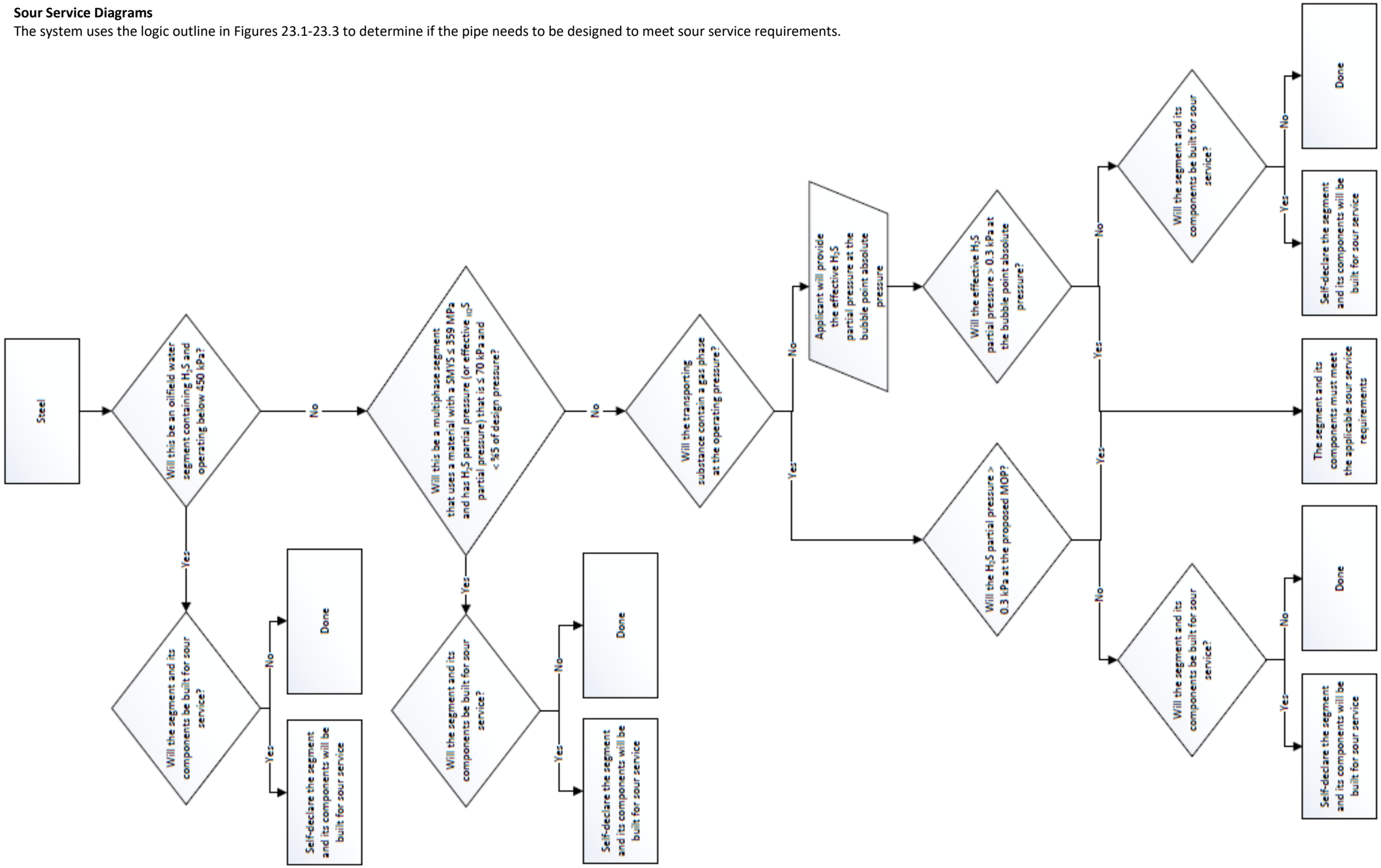


Figure 23.1: Sour Service Diagram for Steel

Figure 23.2: Sour Service Diagram for Polyethylene

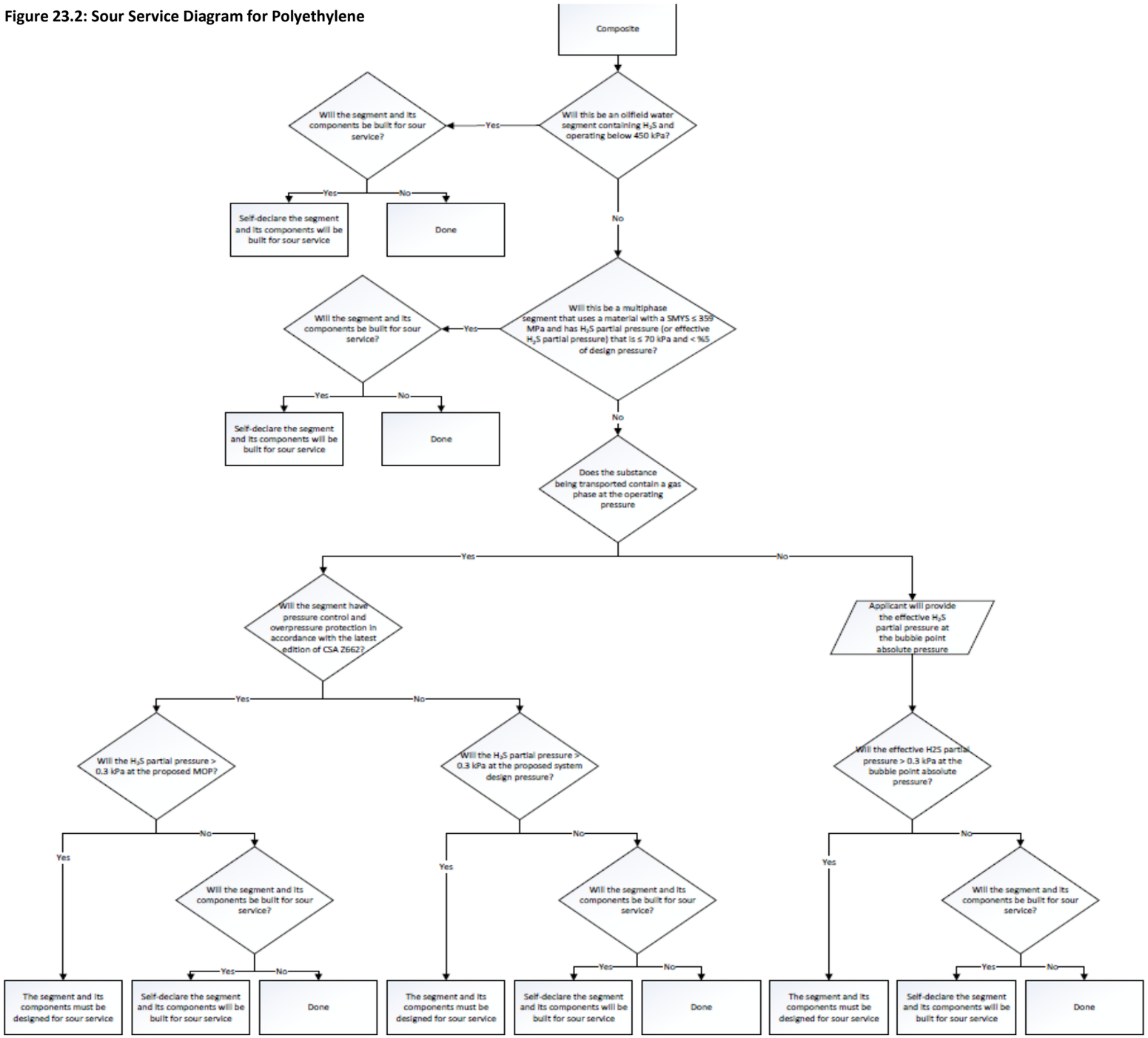
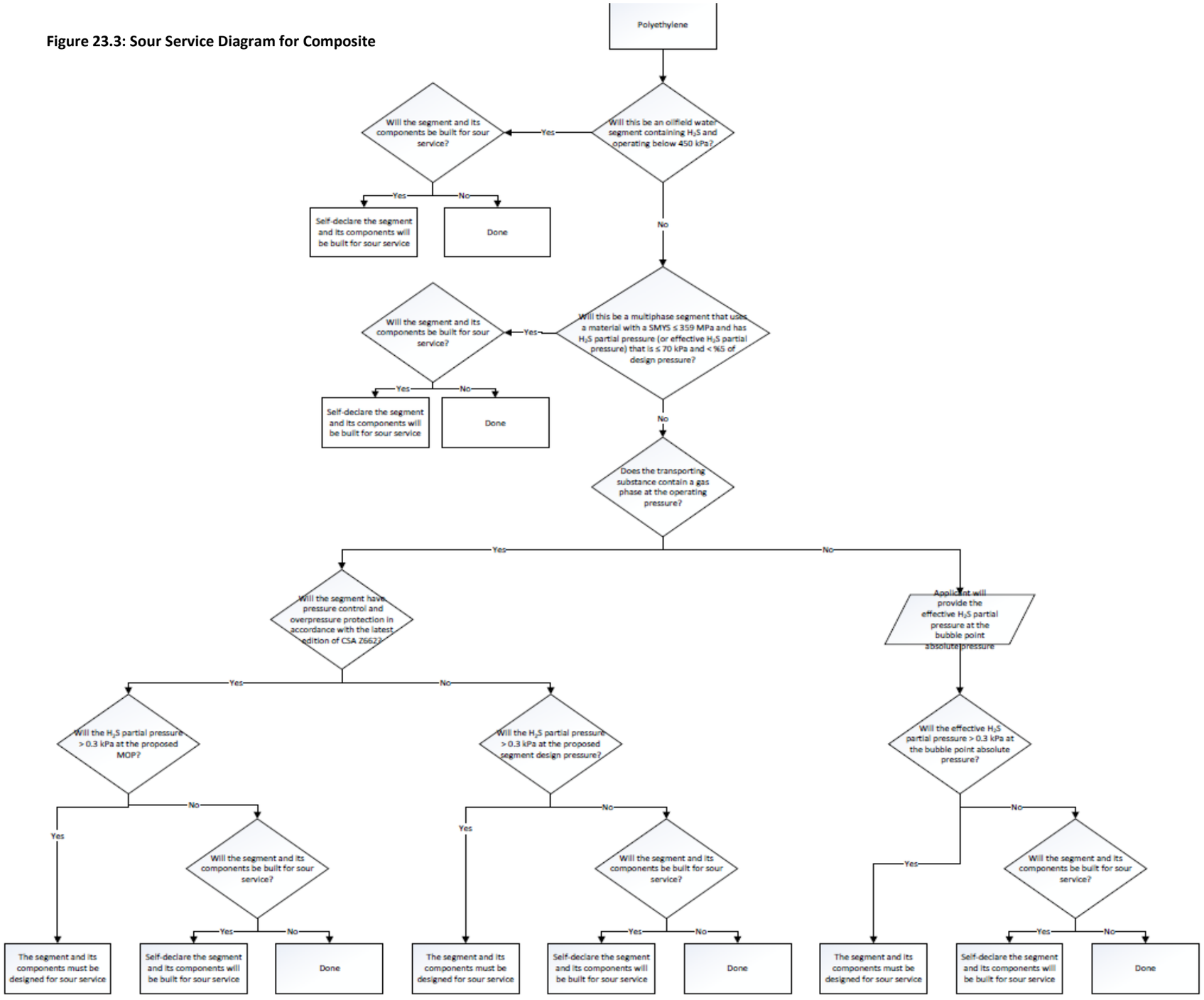


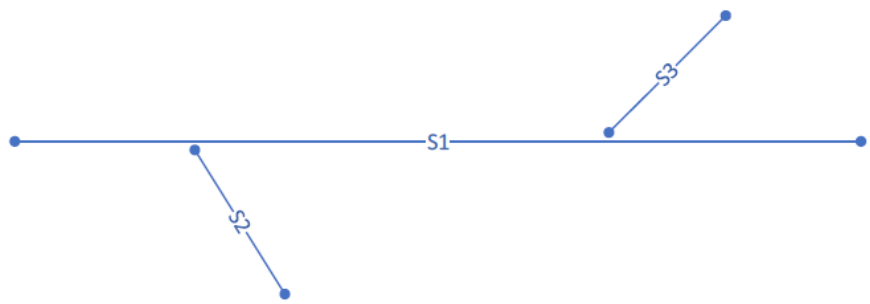
Figure 23.3: Sour Service Diagram for Composite



23.2 Replacement Illustrations

All illustrations discussed below are based on a conceptual Pipeline Licence found in Figure 23.4, with segments 1, 2 and 3. It is assumed that all segments currently have an "Operating" status.

Figure 23.4: Pipeline Licence



23.2.1 Replacements with No Segment Splitting

Where **ALL** replacement sections are in-kind **AND** none of the replacement sections require a newer construction date to be recorded, the applicant has two options for providing data on the replacement sections:

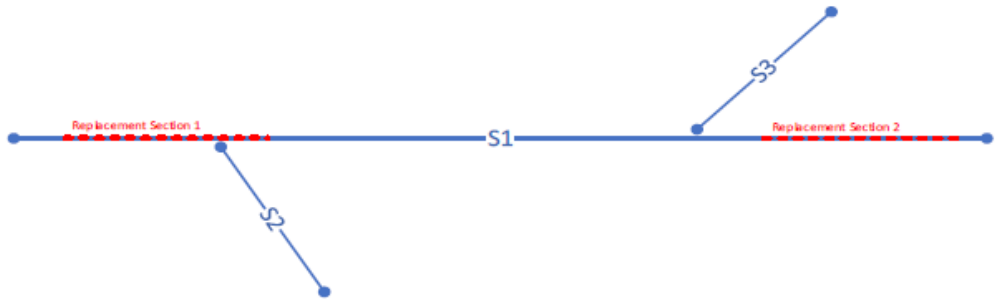
1. Upload a new shapefile that identifies the full extent of each of the segments as well as all proposed replacement sections; or
2. Upload an Excel spreadsheet that contains start and end coordinates for each of the replacement sections.

In both instances the result is one or more replacement sections are recorded against the specified segment, but the segment is not split (e.g., no new segments are created).
Below are examples illustrating how applicants can submit applications without segment splitting:

<u>Example 1:</u>

Figure 23.5 outlines two proposed replacement sections on segment 1. Both replacement sections are in-kind, and the applicant does not want the replacements to record a new construction date, therefore, no new segments will be created. Additionally, segment 1, **does not** have system-generated geometry, meaning that the applicant provided a shapefile for the segment prior to initiating the Replacement application.

Figure 23.5: Two Replacement Sections on Segment 1



The applicant chooses to upload a Replacement Template with the data found in Table 23.1.

Table 23.1: Replacement Template for Example 1

Segment #	Replacement Section #	Start Latitude	Start Longitude	End Latitude	End Longitude
1	1	Lat1	Long1	Lat2	Long2
1	2	Lat3	Long3	Lat4	Long4

Notes: The following should be considered when creating a Replacement Template:

- Start and End coordinates for replacement sections are provided in a sequence from the start of a segment to the end of a segment.
- Latitude and Longitude values are numeric values. However, for the purposes of this example, the exact values are not relevant.

Upon submission of the Replacement Template with the information found in Table 23.1, the applicant is presented with details on the segment(s) consisting of the replacement section(s) as seen in Table 23.2.

Table 23.2: Replacement Details for Example 1

IRIS Replace/Reroute Validation Screen						
Line No.	**From LSD**	**To LSD**	**Computed length (km)**	**In-Kind?**	**New Construction Date?**	**Intended Status?**
1	03-22-008-33-W21	03-22-008-33-W21	0.5	Yes	No	Operating
Replacement Section 1 Details: Start Coordinate: Lat 1 Long 1 End Coordinate: Lat 2 Long 2						
Replacement Section 2 Details: Start Coordinate: Lat 3 Long 3 End Coordinate: Lat 4 Long 4						

Since the applicant uploads the Replacement Template for the replacement sections, the system brings forward the segment that the replacement section applies to and lists its replacement section(s) below. When uploading a Replacement Template, the system assumes that the replacement sections are in-kind and do not require a new construction date (e.g., does not create a new segment) therefore, auto populating "In-Kind" as "Yes", "New Construction Date" as "No" and "Intended Status" as "Not Specified". These responses cannot be edited by the applicant and no new segments are created as a result of the Replacement application.

The applicant has view only access to:

- The Line Pipe Specifications for Line 1, with the exception of CSA factors, which are always editable; and,
- The Segment Details for Line 1 (the source segment 1 with the replacement sections).

If Segment 1 has **null** Line Pipe Specifications or Segment Details, then applicant can edit these data attributes, with the caveat that if the line pipe spec is not known, the applicant should not use the pipe spec of the replacement pipe for the entire segment. The applicant has the option to provide Pipe Specification Change(s) for the replacement section(s).

Upon approval of the Replacement, followed by a completed Construction Completion Report the following events occur:

- Segment 1 is not split, and its geometry does not change.
- The system records geographic coordinates of the replacement section within the 'In-Kind Replacements' tab of the Segment Detail screen in IRIS; and,
- The system records any associated Pipe Specification Changes within the 'Pipe Specification Change' tab of the Segment Detail Screen in IRIS.

Example 2:

Figure 23.5 outlines two proposed replacement sections on segment 1. Both replacement sections are in-kind, and the applicant does not want the replacements to record a new construction date, therefore, no new segments will be created. Additionally, segment 1, **has** system-generated geometry meaning the applicant did provide a shapefile for the segment prior to initiating the Replacement application.

The applicant chooses to upload a Replacement Template with the data found in Table 23.3.

Table 23.3: Replacement Template for Example 2

Segment #	Replacement Section #	Start Latitude	Start Longitude	End Latitude	End Longitude
1	1	Lat1	Long1	Lat2	Long2
1	2	Lat3	Long3	Lat4	Long4

Note: The following should be considered when creating a Replacement Template:

- Start and End coordinates for replacement sections are provided in a sequence from the start of a segment to the end of a segment.
- Latitude and Longitude values are numeric values. However, for the purposes of this example, the exact values are not relevant.

Upon submission of the Replacement Template with the information found in Table 23.3, the applicant is presented with details on the segment(s) consisting of the replacement section(s) as seen in Table 23.4.

Table 23.4: Replacement Details for Example 2

IRIS Replace/Reroute Validation Screen						
Line No.	**From LSD**	**To LSD**	**Computed length (km)**	**In-Kind?**	**New Construction Date?**	**Intended Status?**
1	03-22-008-33-W21	03-22-008-33-W21	0.5	Yes	No	Operating
Replacement Section 1 Details: Start Coordinate: Lat 1 Long 1 End Coordinate: Lat 2 Long 2						
Replacement Section 2 Details: Start Coordinate: Lat 3 Long 3 End Coordinate: Lat 4 Long 4						

Since the applicant uploads the Replacement Template for the replacement sections, the system brings forward the segment that the replacement section applies to and lists its replacement section(s) below. When uploading a Replacement Template, the system assumes that the replacement sections are in-kind and do not require a new construction date (e.g., does not create a new segment) therefore, auto populating “In-Kind” as “Yes”, “New Construction Date” as “No” and “Intended Status” as “Not Specified”. These responses cannot be edited by the applicant and no new segments are created as a result of the Replacement application.

The applicant has view only access to:

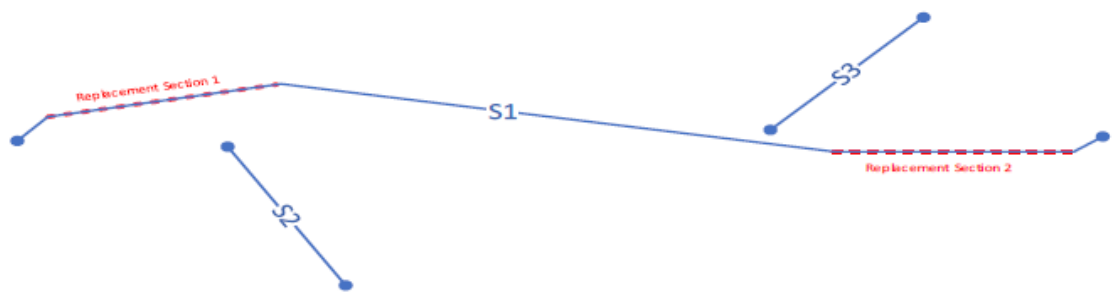
- The Line Pipe Specifications for Line 1, with the exception of CSA factors, which are always editable; and,
- The Segment Details for Line 1 (the source segment 1 with the replacement sections).

If Segment 1 has **null** Line Pipe Specifications or Segment Details, then applicant can edit these data attributes, with the caveat that if the line pipe spec is not known, the applicant should not use the pipe spec of the replacement pipe for the entire segment. The applicant has the option to provide Pipe Specification Change(s) for the replacement section(s).

Upon approval of the Replacement, followed by a completed Construction Completion Report, the following events occur:

- Segment 1 is not split, and its geometry is updated to include coordinates from the replacement sections as seen in Figure 23.6;
- The system records geographic coordinates of the replacement section within the 'In-Kind Replacements' tab of the Segment Detail screen in IRIS; and,
- The system records any associated Pipe Specification Changes within the 'Pipe Specification Change' tab of the Segment Detail Screen in IRIS.

Figure 23.6: Updated Geometry for Segment 1 as a Result of the Replacement



<u>Example 3:</u>

Figure 23.5 outlines two proposed replacement sections on segment 1. Both replacement sections are in-kind, and the applicant **does not** want the replacements to record a new construction date, therefore, no new segments will be created.

The applicant chooses to upload a shapefile with the data found in Table 23.5.

Table 23.5: Shapefile for Replacement where no New Segments are Created

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1.	1	1
2	Polyline that represents the replacement section on segment 1	2	1
3	Polyline that represents the second replacement section on segment 1	3	1

Note: The following should be taken into consideration when preparing a Replacement shapefile:

- Line 1 in the shapefile represents segment's 1 geometry (this will be the same geometry that it currently has). The order is relevant, as the first line in the shapefile that references segment 1 is used as the new geometry for segment 1.
- The provided shapefile contains features for both replacement sections that reference the associated segment in the PrevSegNo attribute.

Upon submission of the shapefile with the information outlined in Table 23.5, the applicant is presented with details on segment 1, and its replacement sections on the screen. The applicant is required to answer questions (in green) for each of the lines found within the shapefile as outlined in Table 23.6.

Table 23.6: Replacement of an Information Screen when Segments are not Created

Shapefile		IRIS Replace/Re-Route Information Screen						
LineNo	**Prev Seg No**	**Seg ID**	**Seg #**	**Current Status**	**Replacement Section?**	**In-Kind?**	**New Construction Date?**	**Intended Segment Status?**
1	1	SK-PS-123	1	Operating	NO	Read-Only	Read-Only	Operating
2	1	SK-PS-123	1	Operating	YES	YES	NO	Disabled
3	1	SK-PS-123	1	Operating	YES	YES	NO	Disabled

The applicant indicates which line is the updated geometry of the segment by answering "No" to the replacement section question. In this example, Line 1 is the source segment 1. When the replacement section is "No":

- The applicant provides the "Intended Status" but cannot edit the In-Kind and New Construction Date questions. For this example, the applicant answers "Operating" to the "Intended Status" question.
- The "In-Kind" and "New Construction Date" are auto-populated as "Not Specified" and cannot be edited.
- The applicant can only view Line Pipe Spec, with the exception of CSA factors, which are always editable, for Line 1.
- If Line 1 has null Line Pipe Spec attributes, then applicant can edit these data attributes, with the caveat that if the line pipe spec is not known, the applicant should not use the pipe spec of the replacement pipe.
- The applicant can always edit the Segment Details in this scenario.
- The applicant has the option to provide Pipe Specification Change for the segment.

The applicant indicates which line is a replacement section by answering "Yes" to the replacement section question. In this example, Lines 2 and 3 are the replacement sections. When the replacement section is "Yes":

- The applicant can answer the "In-Kind" and "New Construction Date" questions. For this example, the applicant answers "Yes" to the In-Kind question and the New Construction Date as "No" for Lines 2 and 3 which **does not result in the creation of new segments**.
- The applicant has the option to provide Pipe Specification Changes for the replacement sections.

Upon approval of the Replacement, followed by a completed Construction Completion Report, the following events occur:

- Segment 1 is not split.
- The system records geographic coordinates of the replacement section within the 'In-Kind Replacements' tab of the Segment Detail screen in IRIS; and,
- The system records any associated Pipe Specification Changes within the 'Pipe Specification Change' tab of the Segment Detail Screen in IRIS.

23.2.2 Replacements with Segment Splitting

Where replacement sections are not in-kind AND/OR require a new construction date to be recorded, the applicant:

- Uploads a shapefile that identifies the full extent of each of the proposed replacement sections.

<u>Example 1:</u>

Figure 23.7 One proposed replacement section on segment 1. The replacement section is not in-kind, or the applicant wants the replacement to record a new construction date, therefore, new segments are created.

Figure 23.7: One Replacement Section on Segment 1

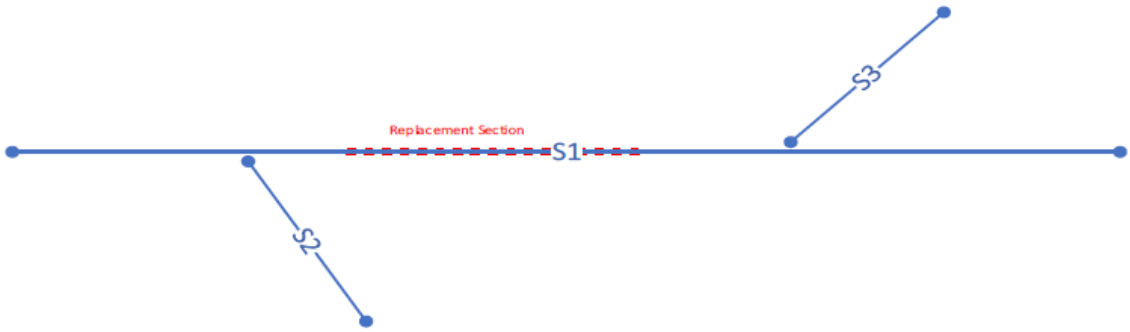


Figure 23.8: Segments Created as a Result of the Replacement

The applicant uploads a shapefile with the data found in Table 23.7.

Table 23.7: Shapefile for Replacement with New Segments Created

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1 after the replacement (S1 from Figure 23.8)	1	1
2	Polyline that represents the full extent of the replacement section which will become a new segment (S4 from Figure 23.8)	2	1
3	Polyline that represents the remaining extent of the original segment 1 which will become a new segment (S5 from Figure 23.8)	3	1

Note: The following should be taken into consideration when preparing a Replacement shapefile:

- Order is relevant, as the first line that references segment 1 will be used as the new geometry for segment 1.
- If the replacement section occurs at the start or end of the existing segment, there may only be two lines in the spatial file. This example illustrates a replacement in the middle of the segment resulting in three lines (e.g., new segments are created).
- Referencing a PrevSegNo of 1 will allow the specifications from the original segment 1 to be copied to the newly created segments (if desired).
- If the PrevSegNo is left blank, the applicant will have to input all pipe specifications related to the newly created segment.

Upon submission of the shapefile with the information found in Table 23.7, the applicant is presented with details on Segment 1, and its replacement sections on the screen. The applicant is required to answer questions (in green) for each of the lines found within the shapefile as outlined in Table 23.8.

Table 23.8: Replacement Information Screen when Segments are Created

Shapefile		IRIS Screens						
Line No	**Prev Seg No**	**Seg ID**	**Seg #**	**Current Status**	**Replacement Section?**	**In-Kind?**	**New Construction Date?**	**Intended Segment Status?**
1	1	SK-PS-123	1	Operating	NO	Read-Only	Read-Only	Operate
2	1	SK-PS-123	1	Operating	YES	NO	NO	Operate
3	1	SK-PS-123	1	Operating	NO	Read-Only	Read-Only	Operate

The applicant indicates which line is the updated geometry of segment 1 by answering “No” to the replacement section question. In this example, Line 1 is the source segment 1. When the replacement section is “No”:

- The applicant provides the “Intended Status” but cannot edit the In-Kind and New Construction Date questions. For this example, the applicant answers “Operating” to the “Intended Status” question.
- The “In-Kind” and “New Construction Date” are auto-populated as “Not Specified” and cannot be edited.
- The applicant can only view Line Pipe Spec, with the exception of CSA factors, which are always editable, for Line 1.
- If Line 1 has null Line Pipe Spec attributes, then the applicant can edit these data attributes, with the caveat that if the line pipe spec is not known, the applicant should not use the pipe spec of the replacement pipe.
- The applicant can always edit the Segment Details in this scenario.
- The applicant has the option to provide Pipe Specification Changes for the segment.

The applicant indicates which line is a replacement section by answering “Yes” to the replacement section question. In this example, Line 2 is the replacement section. When the replacement section is “Yes”:

- The applicant can answer the “In-Kind” and “New Construction Date” questions. For this example, the applicant answers “No” to the In-Kind question and the New Construction Date as “No” for Line 2 which **results in the creation of a new segment**.
- The applicant provides Line Pipe Spec and Segment Details for Line 2 (e.g., segment 4) in Figure 23.8 as the replacement is not in-kind.

- The applicant has the option of providing a Pipe Specification Change for the replacement section.

The applicant indicates which line is the updated geometry of the segment by answering "No" to the replacement section question. In this example, segment 5 from Figure 23.8 used to be a part of source segment 1 but is now becoming a new segment. When the replacement section is "No":

- The applicant provides the "Intended Status" but cannot edit the In-Kind and New Construction Date questions. For this example, the applicant answers "Operating" to the "Intended Status" question.
- The "In-Kind" and "New Construction Date" are auto-populated as "Not Specified" and cannot be edited.
- The applicant can only view the Line Pipe Specifications, with the exception of CSA factors, which are always editable. This is because the data is inherited from its source segment, segment 1.
- If there are null Line Pipe Spec attributes, then applicant can edit these data attributes, with the caveat that if the line pipe spec is not known, the applicant should not use the pipe spec of the replacement pipe.
- The applicant can always edit the Segment Details in this scenario.
- The applicant has the option to provide Pipe Specification Change for the segment.

Upon approval of the Replacement, followed by a completed Construction Completion Report, the following events will occur:

- Segment 1 is split as seen in Figure 23.8; and,
- The system records any associated Pipe Specification Changes within the 'Pipe Specification Change' tab of the Segment Detail Screen in IRIS.

23.3 Re-Route Illustrations

Below are a few examples to illustrate how applicants can submit Re-Route applications for different scenarios. All scenario examples are based on a conceptual Pipeline Licence with Segments 1, 2 and 3 as shown in Figure 23.4. It is assumed that all segments currently have an "Operating" status.

Example 1:

Figure 23.9 outlines that segment 1 is being re-routed at two locations. Both sections of pipe that are routed around will be abandoned in place. All re-routed pipes (segment 1) are Copy Data = Yes and should retain the original construction date.

Figure 23.9: Re-Route Sections Have the Same Pipe Material as the Original Segment

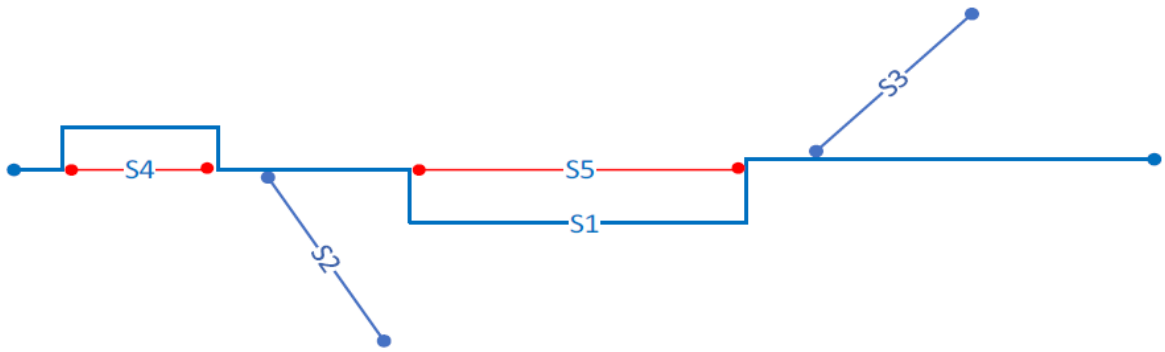


Figure 23.10: Re-Route Shapefile Where the Re-Routed Sections are Part of the Original Segment 1

The applicant uploads a shapefile with the data found in Table 23.9.

Table 23.9: Re-Route Having the Same Pipe Specification as the Original Segment Shapefile

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1 including the re-routes[1] (Line 1 from Figure 23.10)	1	1
2	Polyline that represents the full extent of the bypassed section by the new re-routed section[2] (Line 2 from Figure 23.10)	2	1
3	Polyline that represents the full extent of the bypassed section by	3	1

	the new re-routed section[2] (S5 from Figure 23.10)		

[1] The geometry for the re-routes are included in the first row because they will be part of Segment 1 since the re-routed sections have the same pipe specifications as the original segment 1.
[2] The bypassed section will obtain a new Segment ID and will no longer be part of segment 1 since the status of the bypassed segment will be changing.

Note: The following should be taken into consideration when preparing a Re-Route shapefile:

- The order is relevant, as the first line in the shapefile that references segment 1 in the PrevSegNo is used as the new geometry for segment 1.
- The provided shapefile contains three lines, and all lines should reference segment 1 in the PrevSegNo attribute so that the created segments inherit specifications from segment 1.
- Each LineNo provided in the shapefile for a Re-Route application turns into a segment.

Upon submission of the shapefile with the information found in Table 23.9, the applicant will be presented with details on segment 1, and its re-routed sections on the screen. The applicant is required to answer questions (in green) for each of the lines found within the shapefile as outlined in Table 23.10.

Table 23.10: Segment Information where the Re-Route Has the Same Pipe Specification as the Original Segment

Shapefile		IRIS Replace/Re-Route Information Screen					
Line No	**Prev Seg No**	**Seg ID**	**Seg #**	**Current Status**	**Copy from Previous Segment?**	**Requires New Construction Date?**	**Intended Segment Status?**
1	1	SK-PS-123	1	Operating	YES	NO	Operate
2	1	SK-PS-123	1	Operating	YES	NO	Abandon
3	1	SK-PS-123	1	Operating	YES	NO	Abandon

The first row (Line 1) in the shapefile is assumed to be the updated geometry for the original source segment, segment 1.

- The system auto populates “Copy Data” as “Yes”, “New Construction Date” as “No”. The applicant cannot edit these responses.
- The applicant provides a response for “Intended Status” as “Operate” for Line 1.
- The applicant can only view the Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 1.
- If Line 1 has null Line Pipe Specifications, then the applicant can edit these data attributes, with the caveat that if the line pipe specification is not known, the applicant should not use the pipe specification of the re-route across the entire segment.
- The applicant can always edit the Segment Details in this scenario.
- The applicant has the option to provide a Pipe Specification Change for the segment.

The applicant provides the response to “Copy from Previous Segment”, “Requires New Construction Date” and “Intended Segment Status” for Line 2 and 3. For this example, the applicant answers:

- “Yes” to “Copy from Previous Segment”, “No” to “Requires New Construction Date” and “Abandon” to “Intended Segment Status” questions for **Line 2**.
  - The applicant can only view Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 2. This is because the pipe specifications are inherited from its source segment, segment 1.
  - If Line 2 has null Line Pipe Spec attributes, then the applicant can edit these data attributes.
  - The applicant can always edit the Segment Details in this scenario.
  - The applicant has the option to provide a Pipe Specification Change for the segment.

- “Yes” to “Copy from Previous Segment”, “No” to “Requires New Construction Date” and “Abandon” to “Intended Segment Status” questions for **Line 3**.
  - The applicant can only view Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 3. This is because the pipe specifications are inherited from its source segment, segment 1.
  - If Line 3 has null Line Pipe Spec attributes, then the applicant can edit these data attributes.
  - The applicant can always edit the Segment Details in this scenario.
  - The applicant has the option to provide a Pipe Specification Change for the segment.

Upon approval of the Re-Route, followed by a completed Construction Completion Report, the following events will occur:

- Segment 1 is split as Line 1 as segment 1, Line 2 as segment 4 and Line 3 as segment 5;
- Segments 4 and 5 are created;
- The system records the updated geometries for segments 1, 4, and 5; and,
- The system records any associated Pipe Specification Changes within the ‘Pipe Specification Change’ tab of the Segment Detail Screen in IRIS.

<u>Example 2:</u>

Figure 23.11 outlines that segment 1 is being re-routed at two locations. In one instance, the re-routed section is **not** copying data and the applicant wants a new construction date. In the other instance, the re-route is getting copied data from its source segment and should not get a new construction date. For this example, both sections of pipe that have been routed around will be Discontinued. This example illustrates how two different re-routes can be accommodated in a single submission.

Figure 23.11: Re-Route Does Not have the Same Pipe Specifications as the Original Segment

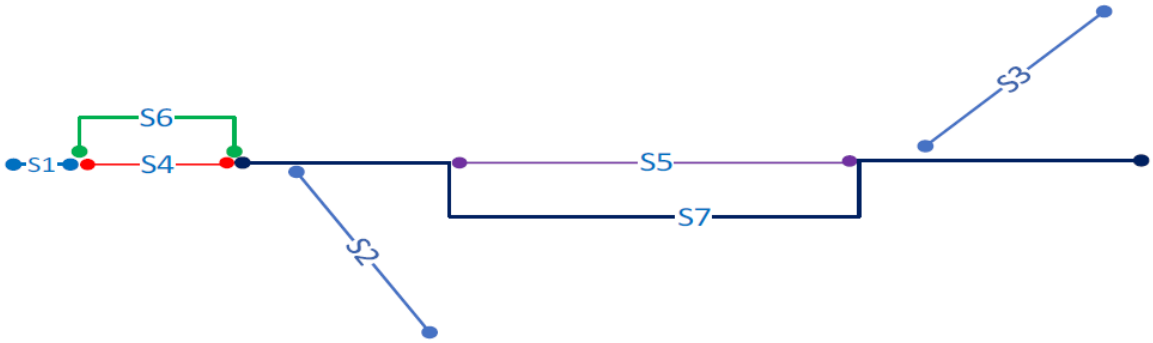
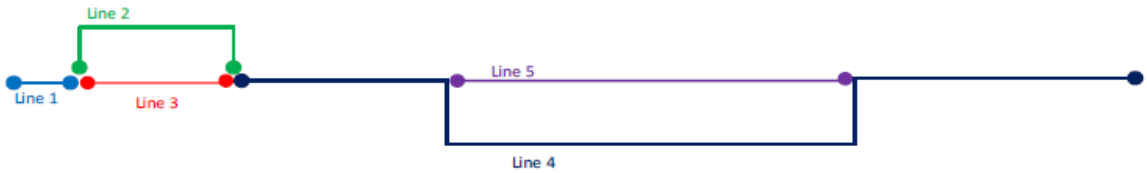


Figure 23.12: Re-Route Shapefile where the Re-Route Does Not Have the Same Pipe Specifications as the Original Segment



The applicant uploads an shapefile with the data found in Table 23.11.

Table 23.11: Shapefile for a Re-Routed Section Having Different Pipe Specifications from Original Segment

FID	GEOM	LineNo	PrevSegNo
1	Polyline that represents the full extent of segment 1 after the re-routes[1] (Line 1 from Figure 23.12)	1	1
2	Polyline that represents the full extent of the first section of re-routed pipe[2] (Line 2 from Figure 23.12)	2	
3	Polyline that represents the full extent of the first	3	1

	bypassed section [3] (Line 3 from Figure 8.4)		
4	Polyline that represents the remaining full extent of segment 1 after the second re-routes[4] (Line 4 from Figure 23.12)	4	1
5	Polyline that represents the full extent of the second bypassed section [3] (Line 5 from Figure 23.12)	5	1

[1] The geometry for the first re-route is not included in the first row since the re-routed sections have different pipe specifications as the original segment 1, therefore, requiring its own segment.
[2] The segment is not copying the pipe specification data from an existing segment, therefore, it requires its own segment and will not require a PrevSegNo to be populated in the Shapefile.
[3] The bypassed section will obtain a new Segment ID and will no longer be part of segment 1 since the status of the bypassed segment will be changing.
[4] This line will originally be part of Segment 1, however, there is now another re-routed section that will have the same pipe specification as the original segment 1. There will be a new segment created.

Note: The following should be taken into consideration when preparing a Re-Route shapefile:

- The order is relevant, as the first line in the shapefile that references segment 1 will be used as the new geometry for segment 1.
- The provided shapefile contains five lines and all lines, with the exception of Line 2, should reference segment 1 in the PrevSegNo attribute so that the created segments can copy the pipe specification from the original segment.
- Each LineNo provided in the shapefile for a Re-Route application turns into a segment.

Upon submission of the shapefile with the information found in Table 23.11, the applicant will be presented with details on segment 1, and its re-routed sections on the screen. The applicant is required to answer questions (in green) for each of the lines found within the shapefile as outlined in Table 23.12.

Table 23.12: Segment Information where the Re-Route has Different Pipe Specifications from the Original Segment

Shapefile		IRIS Replace/Re-Route Information Screen					
LineNo	Prev Seg No	Seg ID	Seg #	Current Status	Copy from Previous Segment?	Requires New Construction Date?	Intended Segment Status?
1	1	SK-PS-123	1	Operating	YES	NO	Operate
2	Blank	SK-PS-123	Blank	Blank	NO	YES	Operate
3	1	SK-PS-123	1	Operating	YES	NO	Discontinue
4	1	SK-PS-123	1	Operating	YES	NO	Operate
5	1	SK-PS-123	1	Operating	YES	NO	Discontinue

The first row (Line 1) in the shapefile is assumed to be the updated geometry for the original source segment, segment 1.

- The system auto populates “Copy Data” as “Yes”, “New Construction Date” as “No”. The applicant cannot edit these responses.
- The applicant provides a response for “Intended Status” as “Operate” for Line 1.
- The applicant can only view the Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 1.
- If Line 1 has null Line Pipe Specifications, then the applicant can edit these data attributes, with the caveat that if the line pipe specification is not known, the applicant should not use the pipe spec of the re-route across the entire segment.
- The applicant can always edit the Segment Details in this scenario.
- The applicant has the option to provide Pipe Specification Change for the segment.

The applicant provides the response to “Copy from Previous Segment”, “Requires New Construction Date” and “Intended Segment Status” for Lines 2, 3, 4 and 5. For this example, the applicant answers:

- “No” to “Copy from Previous Segment”, “Yes” to “Requires New Construction Date” and “Operating” to “Intended Segment Status” questions for **Line 2.**
  - The applicant provides Line Pipe Specifications and Segment Details for Line 2 since the data is not inherited from the source segment 1 because “Copy Data” is answered “No”.
  - The applicant has the option to provide Pipe Specification Change for the segment.

- “Yes” to “Copy from Previous Segment”, “No” to “Requires New Construction Date” and “Operating” to “Intended Segment Status” questions for **Line 3**.
  - The applicant can only view the Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 3.
  - If Line 3 has null Line Pipe Specifications, then the applicant can edit these data attributes, with the caveat that if the line pipe specification is not known, the applicant should not use the pipe spec of the re-route across the entire segment.

  - The applicant can always edit the Segment Details in this scenario.
  - The applicant has the option to provide Pipe Specification Change for the segment.

- "Yes" to "Copy from Previous Segment", "No" to "Requires New Construction Date" and "Operating" to "Intended Segment Status" questions for **Line 4**.
  - The applicant can only view the Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 4.
  - If Line 4 has null Line Pipe Specifications, then the applicant can edit these data attributes, with the caveat that if the line pipe specification is not known, the applicant should not use the pipe spec of the re-route across the entire segment.
  - The applicant can always edit the Segment Details in this scenario.
  - The applicant has the option to provide Pipe Specification Change for the segment.

- "Yes" to "Copy from Previous Segment", "No" to "Requires New Construction Date" and "Operating" to "Intended Segment Status" questions for **Line 5.**
  - The applicant can only view the Line Pipe Specifications, with the exception of CSA factors, which are always editable, for Line 5.
  - If Line 5 has null Line Pipe Specifications, then the applicant can edit these data attributes, with the caveat that if the line pipe specification is not known, the applicant should not use the pipe spec of the re-route across the entire segment.
  - The applicant can always edit the Segment Details in this scenario.
  - The applicant has the option to provide Pipe Specification Change for the segment.

Upon approval of the Re-Route, followed by a completed Construction Completion Report, the following events will occur:

- Segment 1 is split as Line 1 as segment 1, Line 2 as segment 6, Line 3 as segment 4, Line 4 as segment 7 and Line 5 as segment 5;
- Segments 4, 5, 6, and 7 are created;
- The system records the updated geometries for segments 1, 4, 5, 6, and 7; and,
- The system records any associated Pipe Specification Changes within the 'Pipe Specification Change' tab of the Segment Detail Screen in IRIS.

23.4 Segment Data Template

The Segment Data Template can be used within the New Licence and New Segment application. The Segment Data Template allows the applicant to easily upload multiple/all line pipe specifications at once rather than entering them individually within IRIS. The template is beneficial to use if the applicant wants to accumulate the data over time. The Segment Data Template can be found on the Pipeline Licensing Webpage.

23.4.1 Using the Template

The Segment Data Template has one tab.

- The applicant may submit multiple segment entries in a single populated template;
- Every segment must have the segment level attributes populated its own individual row; and,
- Each template can only contain segments from a single licence number.

The template contains both pick lists and user populated cells. Where there is a pick list option within the template, the applicant must pick list values, or the template file will not upload successfully. Table 23.13 outlines when each data field is required to be populated within the Segment Data Template.

Table 23.13: Data Associated with the Segment Data Template

Data Field	System Required Data	Condition
Line Number	Yes	
From Infrastructure Type	Yes	
To Infrastructure Type	Yes	
Segment Length (km)	Yes	
Industry Pipeline Segment Reference Number	No	
Class Location	Yes	
Segment Design Pressure (kPa)	Yes	
H_2S Partial Pressure (kPa)	Yes	
Anticipated MOP (kPa)	Yes	
Bi-directional Flow (Yes/No)	Yes	
Watercourse Type	Yes	
Watercourse Dry or Frozen (Yes/No)	Conditional	If Watercourse Type = Ephemeral or Intermittent
MOE Change to Setbacks	Conditional	If Watercourse Type ≠ Not Applicable
Material Type	Yes	
Material Standard Type	Yes	
Other Material Standard	Conditional	If Material Standard Type = Other
Material Grade Type	Yes	
Other Material Grade	Conditional	If Material Grade = Other
Material Category Type	Conditional	If Material Type = Steel
Yield Strength (MPa)	Conditional	If Material Type = Composite **OR** Material Type = Fibreglass **AND/OR** Material Standard = Other **AND/OR** Material Grade = Other

Outside Diameter (mm)	Yes	
Wall Thickness (mm)	Yes	
Internal Protection Type	Yes	
Other Internal Protection	Conditional	If Internal Protection Type = Other
External Protection Type	Yes	
Other External Protection	Conditional	If External Protection Type = Other
Cover Depth (m)	Yes	
F DESIGN	Conditional	The applicant must populate all applicable CSA Factors for the material type within the application, as referenced in CSA Z662 standards.
L LOCATION	Conditional	
J JOINT	Conditional	
T TEMPERATURE	Conditional	
A ALLOY	Conditional	
C CIR JOINT	Conditional	
S HYDROSTRESS	Conditional	
F FLUID	Conditional	
F CYCLIC	Conditional	
SDR	Conditional	

The columns can be left blank where the data elements are not mandatory or applicable to that segment. For example, if the Watercourse Type was chosen as “N/A”, then columns L and M would be left blank (Watercourse Dry or Frozen and MOE Change to Setbacks). For more information on the conditions of populating the columns, please reference Table 23.13.

The template does not allow you to change:

- Meets overpressure requirement – ER; and,
- Meets overpressure requirement – Z662.

The answers to these questions automatically default to the way they were answered on the General Information screen of the New Licence or New Segment application for all segments relating to that application. If the applicant wants to change the answers to these questions for each specific segment, they will have to edit each segment on the Segment Data screen within the New Licence or New Segment application.

Line Numbers - the numeric value assigned in line number field within this template must match the numeric value assigned in the line number column within the shapefile. The total number of segments within the Segment Data Template must be less than or equal to the total number of segments within the shapefile. For example, if the shapefile has 4 segments, the applicant can choose to upload the details of 2 of the segments with the Segment Data Template, then input the other two segments in manually on the Segment Details screen within the New Licence/New Segment application.

Using 'Other' Within the Picklist – 'other' can be selected for Material Standard Type, Material Grade Type, Internal Protection Type and External Protection Type within the Segment Data Template. When selecting "other" as a pick list option in columns O, Q, W or Y, (Material Standard Type, Material Grade Type, Internal Protection Type and External Protection Type) please populate columns P, R, X, and/or Z (Other Material Standard, Other Material Grade, Other Internal Protection, and Other External Protection).

When "other" is not selected from the pick list in columns O, Q, W, or Y (Material Standard Type, Material Grade Type, Internal Protection Type and External Protection Type) do not populate columns P, R, X or Z (Other Material Standard, Other Material Grade, Other Internal Protection and Other External Protection).

23.4.2 Terminology Within the Segment Data Template

For clarification on the terms used within the **Segment Data Template**, please see Section 2.3.2 of this document. Table 23.14 outlines differences in the terminology used between the Segment Data Template and the terms used within IRIS.

Table 23.14: Terminology Used in the Segment Data Template

IRIS Screens	Segment Data Template
Industry Segment Ref #	Industry Pipeline Segment Reference Number
SMYS or MPR	Yield Strength
Watercourse Dry or Frozen at Construction	Watercourse Dry or Frozen
MOE Changed ER Standard Setback	MOE Change to Setbacks
Material Standard	Material Standard Type
Material Grade	Material Grade Type
Material Category	Material Category Type
Internal Protection	Internal Protection Type
External Protection	External Protection Type

23.5 Pipe Specification Change Template

The Pipe Specification Change Template can be used within the New Licence and New Segment application. The Pipe Specification Change Template allows the applicant to input and upload the pipe specification change(s) for each segment, instead of manually entering each one separately. The template is beneficial to use if the applicant wants to accumulate the data over time. The Pipe Specification Change Template can be found on the Pipeline Licensing Webpage.

23.5.1 Using the Template

The Pipe Specification Change Template has one tab.

- The applicant may submit multiple pipe specification changes in a single populated template;
- Each pipe specification change must have the segment level attributes populated its own individual row; and,
- Each template can only contain pipe specification changes from a single licence number.

The template contains both pick lists and user populated cells. Where there is a pick list option within the template, the applicant must pick list values, or the template file will not upload successfully. Table 23.15 outlines when each data field is required to be populated within the template.

Table 23.15: Data Associated with the Pipe Specification Change Template

Data Field	Mandatory	Condition
Line Number	Yes	
Crossing Type	Yes	
Centre Latitude	Yes	Datum: NAD83 (CSRS) 0.0000000
Centre Longitude	Yes	
HDD Bored (Yes/No)	Yes	
Cased Pipe (Yes/No)	Yes	
Spec Change Length (km)	Yes	
Material Type	Yes	
Material Standard Type	Yes	
Other Material Standard	Conditional	If Material Standard Type = Other
Material Grade Type	Yes	
Other Material Grade	Conditional	If Material Grade = Other
Material Category Type	Conditional	If Material Type = Steel
Yield Strength (MPa)	Conditional	If Material Type = Composite **OR** Material Type = Fibreglass **AND** Material Standard = Other **AND/OR** Material Grade = Other
Outside Diameter (mm)	Yes	
Wall Thickness (mm)	Yes	
Internal Protection Type	Yes	
Other Internal Protection	Conditional	If Internal Protection Type = Other
External Protection Type	Yes	
Other External Protection	Conditional	If External Protection Type = Other

Cover Depth (m)	Yes	
F DESIGN	Conditional	The applicant must populate all applicable CSA Factors for the material type within the application, as referenced in CSA Z662 standards.
L LOCATION	Conditional	
J JOINT	Conditional	
T TEMPERATURE	Conditional	
A ALLOY	Conditional	
C CIR JOINT	Conditional	
S HYDROSTRESS	Conditional	
F FLUID	Conditional	
F CYCLIC	Conditional	
SDR	Conditional	

The columns can be left blank where the data is not mandatory or applicable to that segment. For example, if pipe specification change had a material type of steel, the CSA factors in columns AA to AE (F DESIGN, L LOCATION, J JOINT, and T TEMPERATURE) would be populated while the remaining CSA factor columns (AF to AK) would be blank. For more information on the conditions of populating the columns, please reference Table 23.15.

Using 'Other' Within the Picklist – 'other' can be selected for Material Standard Type, Material Grade Type, Internal Protection Type and External Protection Type within Pipe Specification Change Template. When using "other" as a pick list option in columns H, J, P or R (Material Standard Type, Material Grade Type, Internal Protection Type and External Protection Type), please populate columns I, K, Q and/or S (Other Material Standard, Other Material Grade e, Other Internal Protection and Other External Protection).

When "other" is not selected from the pick list in columns H, J, P, or R (Material Standard Type, Material Grade Type, Internal Protection Type and External Protection Type), do not populate columns I, K, Q or S (Other Material Standard, Other Material Grade, Other Internal Protection and Other External Protection).

23.5.2 Terminology Within the Pipe Spec Change Template

For clarification on the terms used within the Pipe Specification Change Template, please see Section 2.3.2 of this document. outlines differences in the terminology used between the Segment Data Template and the terms used within IRIS.

Table 23.16: Terminology Used in the Pipe Specification Change Template

IRIS	Pipe Specification Change Template
Spec Change Reason	Crossing Type
Cased	Cased Pipe
SMYS or MPR	Yield Strength

Material Standard	Material Standard Type
Material Grade	Material Grade Type
Material Category	Material Category Type
Internal Protection	Internal Protection Type
External Protection	External Protection Type

23.6 Replacement Template

The Replacement Template can be used within the Replacement application. If the replacement is in-kind and does not require a new construction date, the Replacement Template allows the applicant to submit information using the template without submitting a shape file. This template allows the applicant to submit multiple replacements under the same licence number in one template, however, a single replacement cannot span multiple segments. The Pipe Replacement Template can be found on the Pipeline Licensing Webpage.

23.6.1 Using the Template

The Replacement Template has one tab.

- Each template can only contain segments from a single licence number;
- Each replacement must be within a single row in the template; and,
- The applicant must enter mandatory information in the template for each segment as seen in the table below.

This template is only used if the shapefile is not provided for the replacement section.

Table 23.17 outlines what data fields are required to be populated within the template.

Table 23.17: Data Associated with the Replacement Template

Data Field	Mandatory to Populate	Condition
Segment #	Yes	
Replacement Section Number	Yes	
Start Latitude	Yes	Datum: NAD83 (CSRS) 0.0000000
End Latitude	Yes	
Start Longitude	Yes	
End Longitude	Yes	

23.7 Retroactive Licensing Template

The Retroactive Licensing Template is used to licence previously exempt pipelines and flowlines. This template allows the applicant to submit the required data attributes for multiple previously exempt pipelines, flowlines, and their associated segments in one template.

23.7.1 Using the Template

The Retroactive Licensing Template has two tabs.

- The **Licence Tab** outlines all licence level attributes for each retroactive licence that will be created through the submission;
- The **Segments Tab** outlines all segment level attributes for each retroactive licence that will be created through the submission.
- The applicant may submit multiple segment entries in a single populated template;
- Every segment must have the segment level attributes populated in its own individual row; and,
- Each template can contain segments from multiple licences referenced within this template.

In order for the system to accurately upload the bulk submission, it is essential that the licence and its associated segments are correctly linked. This link is created by entering a unique Industry Licence Reference Number for each licence on the Licences tab and then entering this number on the Segments tab for each associated segment. If these numbers are not properly identified, the upload will fail meaning that the wrong segments will be associated to the wrong licence.

The template contains both pick lists and user-populated cells. Where there is a pick list option within the template, the applicant must pick list values, or the template file will not upload successfully. Please be aware that there are different required data attributes for retroactive licences, depending on the licence type and segment status. Table 23.18 and Table 23.19 outline when each data field is required to be populated within the Retroactive Licensing Template for the appropriate licence type and segment status.

When retroactively licensing a flowline, the applicant uploads the Retroactive Licensing Template, and if desired, the associated shapefile.

23.7.1.1 Data Associated with Previously Exempt Pipeline

In order to obtain a Licence and a Leave to Open on an existing unlicensed pipeline segment, the applicant provides, at a minimum, the data attributes listed in Table 23.18 and a shapefile that contains all segments found within the Retroactive Licensing Template. Submission of more accurate data is encouraged but not mandatory. Operators can continue to submit updated data as acquired over time.

Note: During the initial licensing process, the applicant has the option to populate more data fields than the minimum requirements. Any data not available at the time of licensing, from field work or otherwise, can be gathered and submitted through the Licence Data Amendment or Segment Data Amendment application process.

Table 23.18: Data Associated with the Retroactive Licensing Template for Pipelines

Data Field	Mandatory to Populate for Operating Segments	Mandatory to Populate for Discontinued or Abandoned Segments	Condition
Owner BA ID	Yes	Yes	
Industry Licence Reference #	Yes	Yes	
Segment Count	Yes	Yes	
Licence Type	Yes	Yes	
Transported Substance Type	Yes	No	
Max H_2S Concentration (mol/kmol)	Yes	No	
Substance Gas Phase Indicator (Yes/No)	Yes	No	
Name	No	No	
Line Number	Yes	Yes	
Industry Segment Reference #	No	No	
From Infrastructure Type	Yes	Yes	
To Infrastructure Type	Yes	Yes	
Operational Status	Yes	Yes	
MOP (kPa)	Yes	No	
From Latitude	No	No	This information will be provided in the shapefile; however, the applicant may populate this if they want to. The shapefile latitude/longitude locations will
From Longitude	No	No	
To Latitude	No	No	
To Longitude	No	No	

			overwrite what is found within this template.
Class Location	Yes	Yes	
Material Type	Yes	Yes	
Material Standard Type	Yes	No	
Other Material Standard	Conditional	No	If Material Standard Type = Other
Material Grade Type	Yes	No	
Other Material Grade	Conditional	No	If Material Grade = Other
Material Category Type	Yes	No	Is Material Type = Steel or Stainless Steel
Yield Strength (MPa)	Yes	No	If Material Type = Composite **OR** Material Type = Fibreglass **AND** Material Standard = Other **AND/OR** Material Grade = Other
Outside Diameter (mm)	Yes	No	
Wall Thickness (mm)	Yes	No	
Internal Protection Type	Yes	No	
Other Internal Protection	Conditional	No	If Internal Protection Type = Other
External Protection Type	Yes	No	
Other External Protection	Conditional	No	If External Protection Type = Other
Calculated Design Pressure (kPa)	Yes	No	Design Pressure derived by IRIS based on material specifications
Segment Design Pressure (kPa)	Yes	No	Must be manually entered by user
Cover Depth (m)	Yes	No	

Construction Date	No	No	
Segment Length (km)	No	No	
Watercourse Type	Yes	No	
Designed for Sour Service (Yes/No)	Yes	No	
H_2S Partial Pressure (kPa)	Yes	No	If transports a gas or liquid containing a gas phase.
Bi-directional Flow (Yes/No)	Yes	No	
Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guideline? (Yes/No)	Yes	No	
Does the proposed segment(s) have an overpressure protection and pressure control system in place in accordance with the latest version of CSA Z662? (Yes/No)	Yes	No	
Liner Material Type	No	No	If there is a Free-Standing Liner within the segment
Liner Material Standard	No	No	If there is a Free-Standing Liner within the segment
Liner Other Material Standard	No	No	If there is a Free-Standing Liner within the segment

			AND Liner Material Standard = Other
Liner Material Grade Type	No	No	If there is a Free-Standing Liner within the segment
Liner Other Material Grade	No	No	If there is a Free-Standing Liner within the segment **AND** Liner Material Grade Type = Other
Liner Material Category Type	No	No	If there is a Free-Standing Liner within the segment
Liner Yield Strength (MPa)	No	No	If there is a Free-Standing Liner within the segment **AND** Material Type = Composite **OR** Material Type = Fibreglass **AND** Material Standard = Other **AND/OR** Material Grade = Other
Liner Outside Diameter (mm)	No	No	If there is a Free-Standing Liner within the segment
Liner Wall Thickness (mm)	No	No	If there is a Free-Standing Liner within the segment
Liner Calculated Design Pressure (kPa)	No	No	If there is a Free-Standing Liner within the segment
Liner Installation Date	No	No	If there is a Free-Standing Liner within the segment
Liner Removal Date	No	No	If there was a Free-Standing Liner within the segment and it is now removed.

The columns can be left blank where the data elements are not mandatory or applicable to that segment. For example, if there is no free-standing liner within the segment, columns AK to AV can be left blank in the segment tab. For more information on the conditions of populating the columns, please reference Table 23.18 within this document and Chapter 7 of Directive PNG034.

23.7.1.2 Data Associated with Previously Exempt Flowlines

In order to obtain a Licence and Leave to Open on an existing unlicensed flowline segment, the applicant provides, at a minimum, the data attributes listed in Table 23.19. Submission of more accurate data is encouraged but not mandatory.

Note: During the initial licensing process, the applicant has the option to populate more data fields than the minimum requirements. Any data not available at the time of licensing, from field work or otherwise, can be gathered and submitted through the Licence Data Amendment or Segment Data Amendment application process.

Table 23.19: Data Associated with the Retroactive Licensing Template for Flowlines

Data Field	Mandatory to Populate for Operating Segments	Mandatory to Populate for Discontinued or Abandoned Segments	Condition
Owner BA ID	Yes	Yes	
Industry Licence Reference #	Yes	Yes	
Segment Count	Yes	Yes	
Licence Type	Yes	Yes	
Transported Substance Type	Yes	No	
Max H_2S Concentration (mol/kmol)	No	No	
Substance Gas Phase Indicator (Yes/No)	No	No	
Name	No	No	
Line Number	Yes	Yes	
Industry Segment Reference #	No	No	
From Infrastructure Type	Yes	Yes	
To Infrastructure Type	Yes	Yes	

Operational Status	Yes	Yes	
MOP (kPa)	Yes	No	
From Latitude	Yes	Yes	If the applicant does not provide a shapefile for the flowline segment(s), the from/to Latitude and from/to Longitudinal locations for flowline segment(s) are submitted. Please remember that **shapefiles are not mandatory for retroactive flowlines**.
From Longitude	Yes	Yes	
To Latitude	Yes	Yes	
To Longitude	Yes	Yes	
Class Location	No	No	
Material Type	No	No	
Material Standard Type	No	No	
Other Material Standard	No	No	If Material Standard Type = Other
Material Grade Type	No	No	
Other Material Grade	No	No	If Material Grade = Other
Material Category Type	No	No	If Material Type = Steel
Yield Strength (MPa)	No	No	If Material Type = Composite **OR** Material Type = Fibreglass **AND** Material Standard = Other **AND/OR** Material Grade = Other
Outside Diameter (mm)	No	No	
Wall Thickness (mm)	No	No	
Internal Protection Type	No	No	

Other Internal Protection	No	No	If Internal Protection Type = Other
External Protection Type	No	No	
Other External Protection	No	No	If External Protection Type = Other
Calculated Design Pressure (kPa)	No	No	
Segment Design Pressure (kPa)	No	No	
Cover Depth (m)	No	No	
Construction Date	No	No	
Segment Length (km)	No	No	
Watercourse Type	No	No	
Designed for Sour Service (Yes/No)	No	No	
H_2S Partial Pressure (kPa)	No	No	
Bi-directional Flow (Yes/No)	No	No	
Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guideline? (Yes/No)	No	No	
Does the proposed segment(s) have an overpressure protection and pressure control system in place in accordance with the latest version of CSA Z662? (Yes/No)	No	No	

Liner Material Type	No	No	If there is a Free-Standing Liner within the segment
Liner Material Standard	No	No	If there is a Free-Standing Liner within the segment
Liner Other Material Standard	No	No	If there is a Free-Standing Liner within the segment **AND** Liner Material Standard = Other
Liner Material Grade Type	No	No	If there is a Free-Standing Liner within the segment
Liner Other Material Grade	No	No	If there is a Free-Standing Liner within the segment **AND** Liner Material Grade Type = Other
Liner Material Category Type	No	No	If there is a Free-Standing Liner within the segment
Liner Yield Strength (MPa)	No	No	If there is a Free-Standing Liner within the segment **AND** Material Type = Composite **OR** Material Type = Fibreglass **AND** Material Standard = Other **AND/OR** Material Grade = Other
Liner Outside Diameter (mm)	No	No	If there is a Free-Standing Liner within the segment
Liner Wall Thickness (mm)	No	No	If there is a Free-Standing Liner within the segment

Liner Calculated Design Pressure (kPa)	No	No	If there is a Free-Standing Liner within the segment
Liner Installation Date	No	No	If there is a Free-Standing Liner within the segment
Liner Removal Date	No	No	If there was a Free-Standing Liner within the segment and it is now removed.

The columns can be left blank where the data elements are not mandatory or applicable to that segment. For example, for a retroactive operating flowline segment, if the applicant does not know the material of the segment, that field can be left blank (i.e., all non-mandatory data elements that the applicant does not have information on can be left blank within the template). For more information on the conditions of populating the columns, please reference Table 23.19 within this document and Chapter 7 of Directive PNG034.

Using 'Other' Within the Picklist – 'other' can be selected for Material Standard Type, Material Grade Type, Internal Protection Type, External Protection Type, Liner Material Standard Type, and Liner Material Grade Type within the Retroactive Licensing Template. When selecting 'other' in columns N, P, V, X, AL, or AN (Material Standard Type, Material Grade Type, Internal Protection Type, External Protection Type, Liner Material Standard Type, and Liner Material Grade Type) within the segment tab, please populate the appropriate column among O, Q, W, Y, AM, or AO (Other Material Standard, Other Material Grade, Other Internal Protection, Other External Protection, Liner Other Material Standard, and Liner Other Material Grade) within the segment tab.

When 'other' is not selected in columns N, P, V, X, AL, or AN (Material Standard Type, Material Grade Type, Internal Protection Type, External Protection Type, Liner Material Standard Type, and Liner Material Grade Type) within the segment tab, do not populate columns O, Q, W, Y, AM, or AO (Other Material Standard, Other Material Grade, Other Internal Protection, Other External Protection, Liner Other Material Standard, and Liner Other Material Grade) within the segment tab.

23.7.2 Terminology Used Within the Retroactive Licensing Template

For clarification on the terms used within the Retroactive Licensing Template, please refer to Section 4.2 within this document. Table 23.20 outlines the differences in the terminology used between the Retroactive Licensing Template and the terms used within IRIS.

Table 23.20: Terminology Used Within the Retroactive Licensing Template

IRIS	Retroactive Licensing Template
Licensee BA	Owner BAID
Licence Substance	Transported Substance Type
Maximum H_2S	Max H_2S Concentration
Gas Phase	Substance Gas Phase Indicator
Override Length	Segment Length
Segment Status	Operational Status
Meets overpressure requirement - ER	Does the proposed segment(s) meet the overpressure protection requirements outlined in ER directive and guideline?
Meets overpressure requirement – Z662	Does the proposed segment(s) have an overpressure protection and pressure control system in place in accordance with the latest version of CSA Z662?
SMYS or MPR	Yield Strength
Material Standard	Material Standard Type
Material Grade	Material Grade Type
Material Category	Material Category Type
Internal Protection	Internal Protection Type
External Protection	External Protection Type

23.8 Licence Transfer Template

The Schedule 'C' Licence Transfer Template is used within the Licence Transfer application. The template allows the applicant to easily upload multiple pipeline/flowline licences.

23.8.1 Using the Template

The Schedule 'C' Licence Transfer Template has one tab.

- Each template can only contain valid pipeline licence numbers;
- Each pipeline licence to be transferred must be within a single row in the template; and,
- Where multiple licences are being transferred, unique and sequentially ordered Line Numbers must be provided for each licence.

Table 23.21 - Data Associated with Pipeline Licence Transfer Template

Data Field	Mandatory to Populate	Condition
LINE	Yes	
Licence Number	Yes	

24 Audit Documentation

The following sections provide guidance to fulfill supplementary documentation requirements as requested by the Ministry of Energy & Resources, Energy Regulation Division. The licensee shall review the respective sections as appropriate and fulfill expected requirements to the standards specified and detailed below.

The licensee may review specific application submissions selected for an audit by the ministry by using available search options in IRIS. The following steps may be followed by users to access a submission:

- In IRIS, select on the 'Applications' tab
- Under 'Petroleum and Natural Gas' click on 'search'
- Under 'Applications' click on 'search'
- Select the 'Basic Search' tab
- In the 'Application Number' field, provide the submission number for which the audit was initiated.

NOTE: The submission number will be referenced and included in the instructions provided to the licensee when an application is selected for an audit.

24.1 System Pressure Limits Justification

Acceptable documentation confirming the suitability of the valves, fittings, and flanges used for maintaining system pressure limits, including downstream components, may be requested. In this event, the licensee shall provide the ministry with applicable design pressure calculations, in addition to a description of the valves, fittings, and flanges used to maintain the system pressure limits. It is the duty of the licensee to comply with the requirements within deadlines specified by the ministry.

24.2 Pressure-test Documentation

In accordance with the latest version of CSA Z662: Oil & Gas pipeline systems standard, the licensee shall provide the ministry with acceptable records and submit documentation as outlined in Clause 8.7.7.6 for piping operating at a pressure greater than 700 kPa, or Clause 8.8.7.5, for piping operating at a pressure of 700 kPa or less. In addition, the pressure and temperature recordings submitted must be compliant with Section 2.5.4 of Directive PNG034:

Saskatchewan Pipelines Code. It is the responsibility of the licensee to comply with the requirements prior to the deadline indicated by the ministry.

24.3 Deadlines and Extensions

Upon selection for an audit, the licensee will be provided with a due date within which fulfillment of the request shall be completed by providing the ministry with supporting audit documentation. Alternatively, BA's may submit a request for an extension which may be granted upon individual case by case review.

The submission of a request for an extension shall be completed by submitting a standard cover letter to the ER Service Desk. The licensee must detail the events and circumstances under which an extension is requested, as well as indicate reasonable reasoning describing the failure to comply with provided timelines. A decision will be made to the licensee following a formal review by ER.

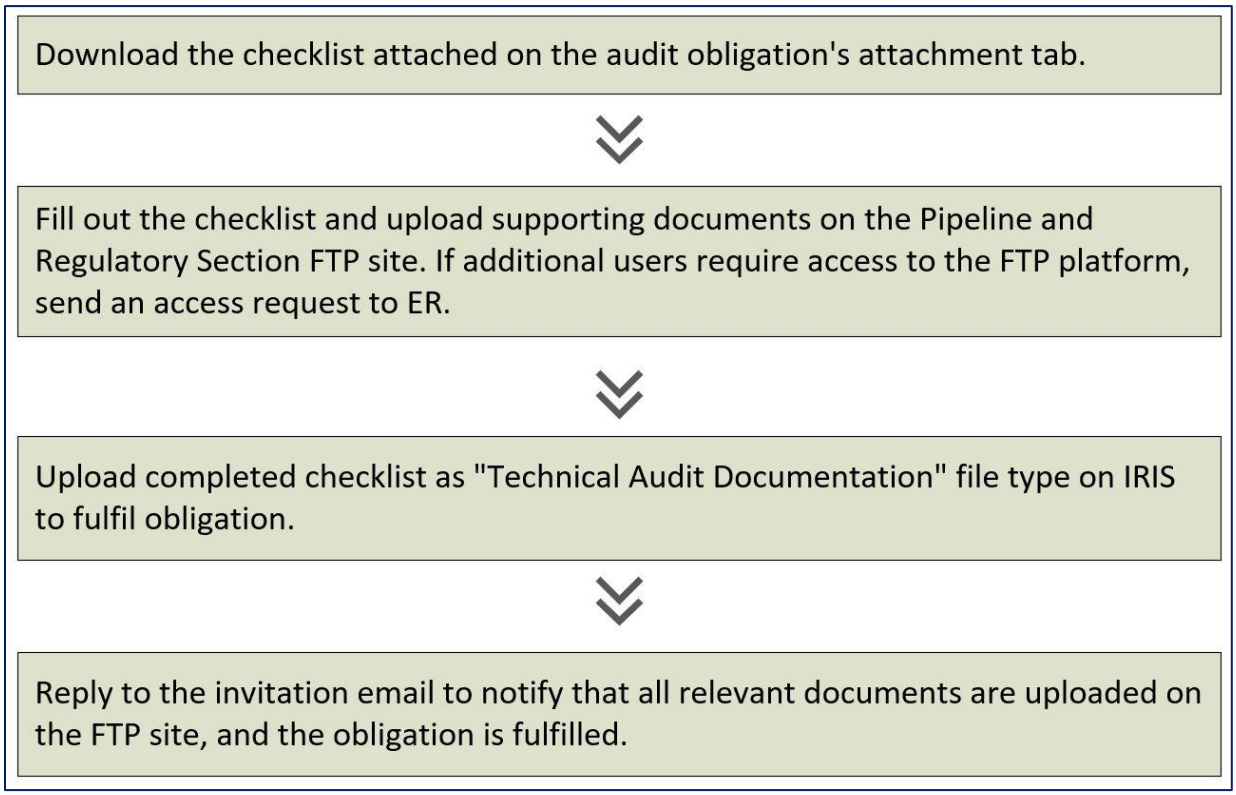
24.4 Technical Submission Audit

Section 24.4 is intended to assist pipeline licence holders with providing the Ministry of Energy and Resources (ER) with the required audit documentation for pipeline technical submission audits.

File Transfer Protocol (FTP) is a technology that transfers files between servers and clients on a computer network. In the technical submission audit project, the FTP site is a secure platform for the collection of information from the licensee for audit purposes.

The following three sub-sections will guide licensee from accessing audit obligation and checklist to upload requested documents to FTP site. And finally, fulfill the obligation and notify ER. Figure 24.1 below illustrates the process for licensee in technical submission audit.

Figure 24.1 Process Flow Diagram for Licensee in Technical Submission Audit



24.4.1 Access Audit Obligation and Checklist

An obligation will be created when a segment is selected for technical submission audit. The obligation can be found under the 'Obligation' tab on the 'Segment Details' page. Click the magnifier icon to load more details.

Figure 24.2 illustrates an 'Unfulfilled' obligation #000000, 'Submit Technical Audit Documentation' with 30 days due date associated with Segment - SK PS 00000000.

Figure 24.2 Example Audit Obligation under the Obligation tab on the Segment Details page

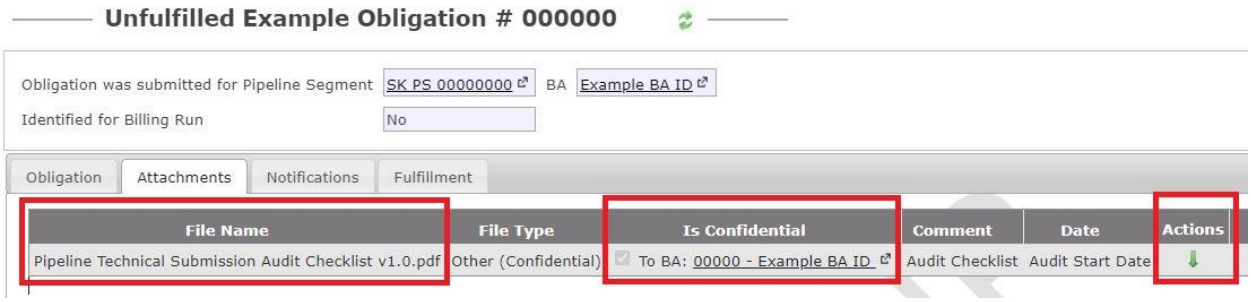
Figure 24.3 illustrates the details of audit obligations, such as the obligation description, obligation fulfillment type and due date. The audit checklist can be downloaded from the 'Attachments' tab.

Figure 24.3 Detail Page of Unfulfilled Example Obligation

Figure 24.4 illustrates the attachment page of an example obligation. Click the arrow icon to download the 'Pipeline Technical Submission Audit Checklist.'

Note: The audit checklist is set to confidential for a specific business association (BA), which will be hidden from other BAs users to ensure data security.

Figure 24.4 Attachment Page of Unfulfilled Example Obligation



24.4.2 Access and Upload of Requested Documents to FTP Site

Section 24.4.2 includes accessing and uploading documents and folders into the ER Pipeline and Regulatory Section FTP site. When a segment is selected for technical submission audit, the licensee will receive an invitation email stating that a segment-specific folder has been shared with them.

Figure 24.5 illustrates invitation email. Click on 'open' to sign in to the FTP site.

Note: If additional users require access to the FTP site, the licensee can reply to the invitation email with the additional user's name and email address.

Figure 24.5 Example Invitation Email

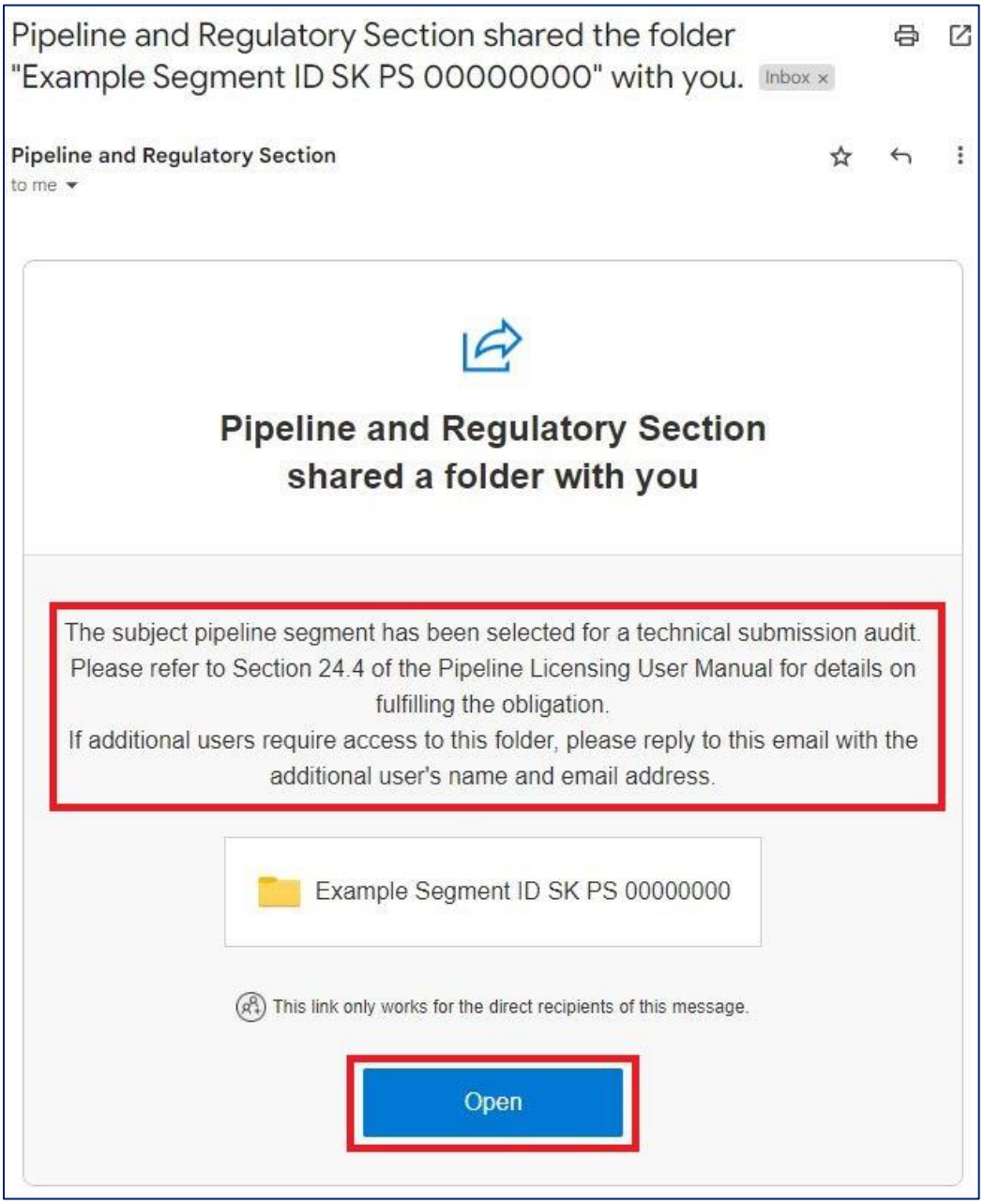


Figure 24.6 illustrates verification page after clicking 'Open' from the previous steps. Click "Send Code" to proceed.

Figure 24.6 Example Verification Page

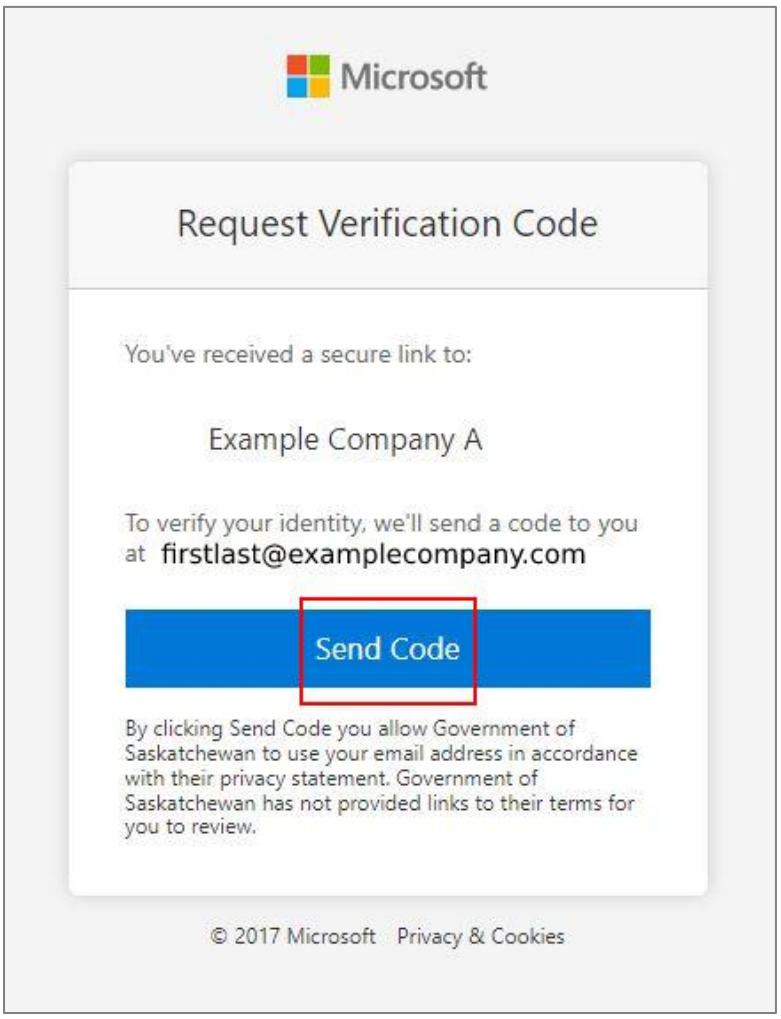


Figure 24.7 illustrates the process of verification. The verification code will be sent to the licensee's email. Enter the verification code in the verification window and click "Verify."

Note: "98988451" and "firstlast@examplecompany.com" are used as an example.

Figure 24.7 Verify with the Account Verification Code

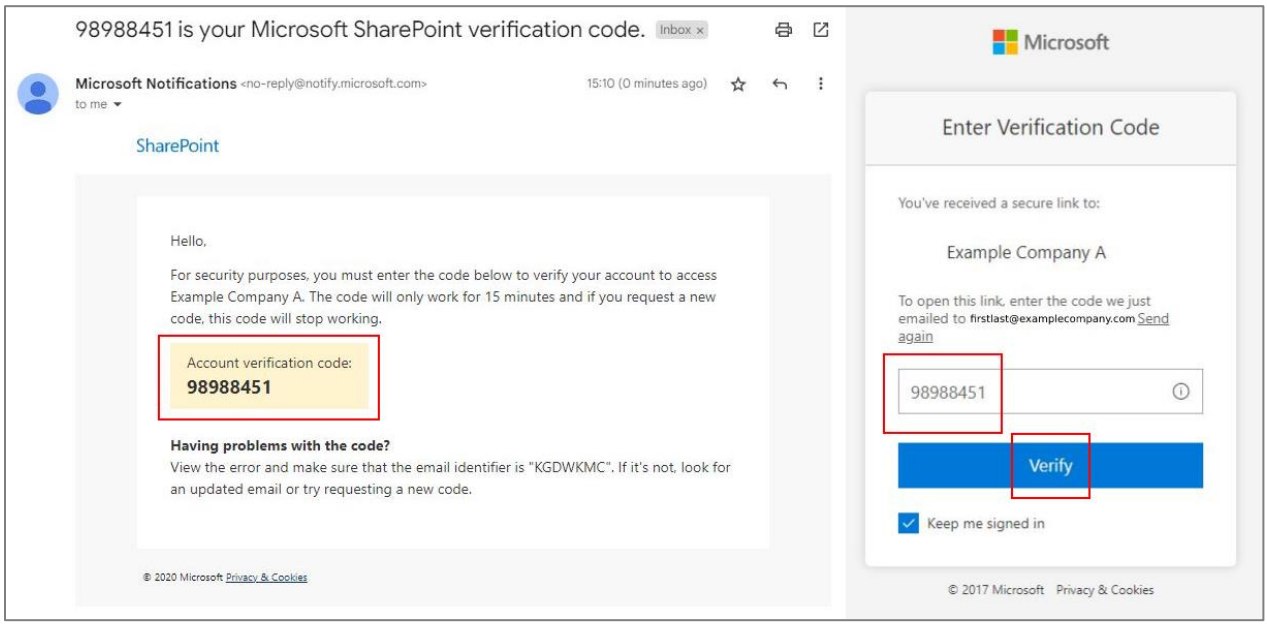
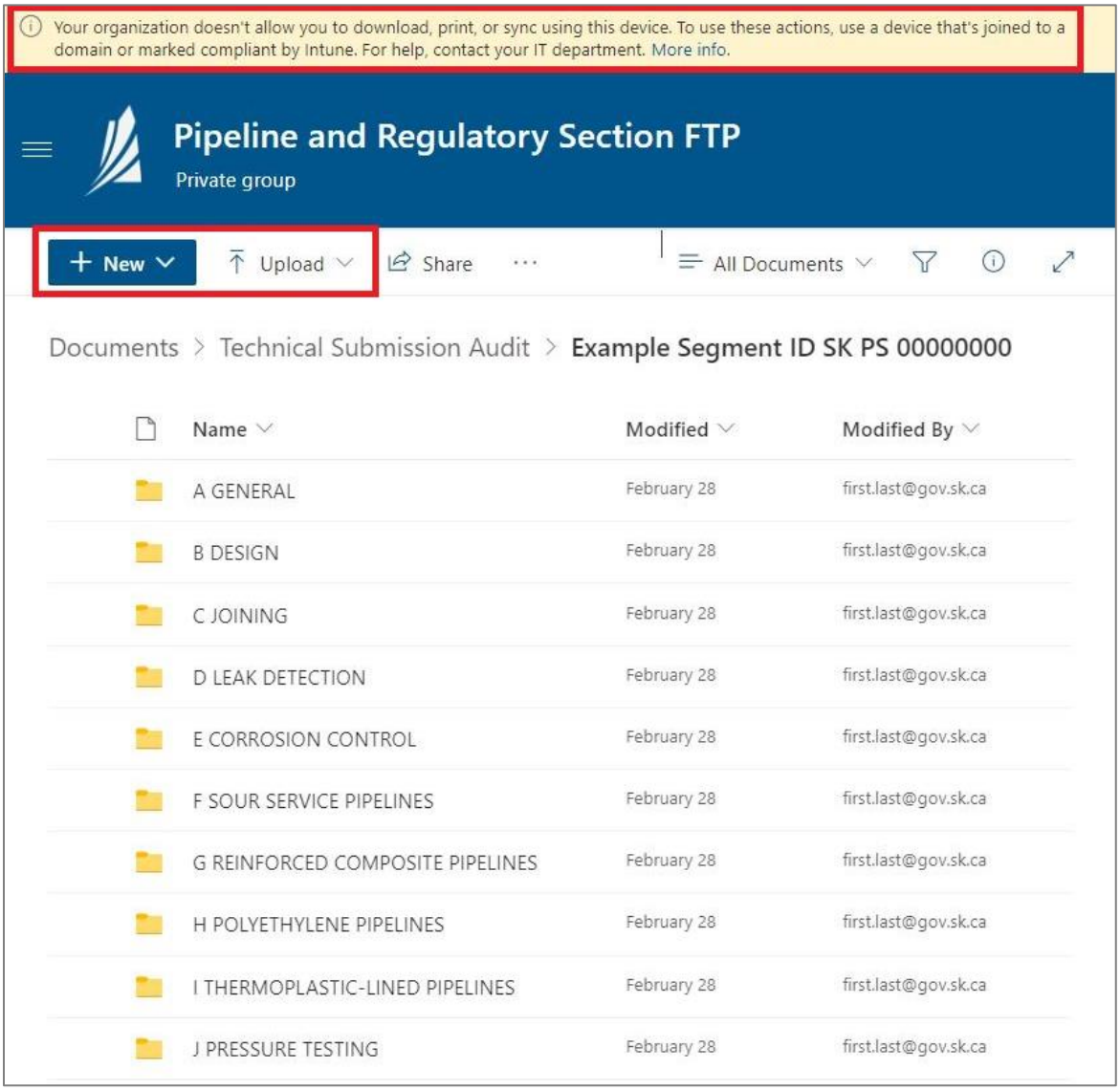


Figure 24.8, illustrates successful verification and licensee now has access to the segment-specific folder in the "Pipeline and Regulatory Section FTP" site. Select "Upload" from the menu to upload applicable documentation. Licensee can upload files or folders.

It is required to organize the documents into folders in accordance with the item numbers provided in the Pipeline Submission Audit Checklist. The upload function will be disabled after the document's submission deadline. Supporting documents are not required for folders that are not applicable.

For example: For Steel Pipelines, Sections G, H and I are not applicable; For Polyethylene Pipelines, Sections G and I are not applicable.

Figure 24.8 Example FTP Site for Technical Submission Audit



Note: On top of the window, there is a warning message stating user's device is unregistered. However, it will not affect the functionality for technical submission audit purposes; therefore, registering a device is not required.

24.4.3 Obligation Fulfillment and ER Notification

Once the checklist is complete and all requested documents are uploaded to the FTP site, the audit obligation can be fulfilled in IRIS. As illustrated in Figure 24.9, click 'Fulfill' under the 'Fulfilment' tab. The IRIS will lead the licensee to the 'Attachments' tab under the Segment Detail page.

Figure 24.9 Fulfill in Obligation Fulfillment Tab

Figure 24.10, click 'Add Industry Pipelines Segment Documents' in the' Attachments' tab to upload the completed audit checklist. A new window, 'Add Documents', will pop up.

Figure 24.10 Attach the complete checklist in the 'Attachments' Tab

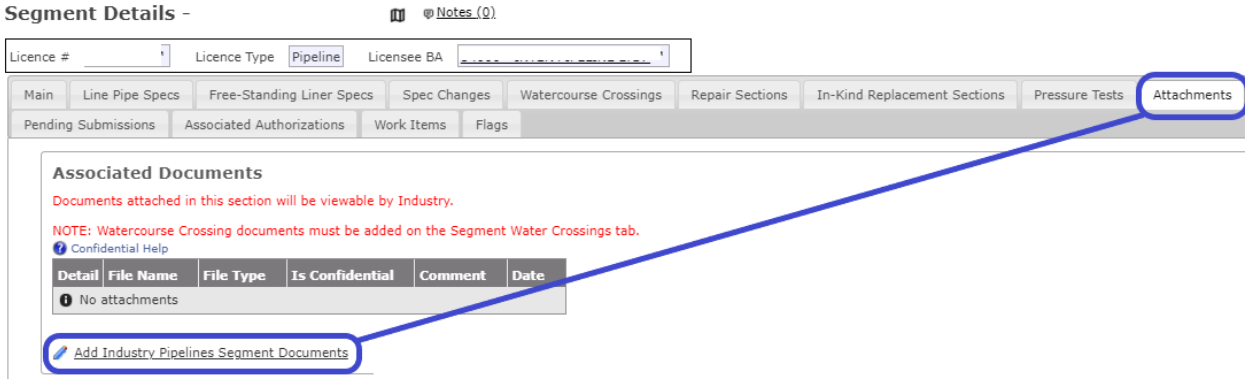


Figure 24.11, in the, select 'No' for 'Are all of the attachments related to a pre-existing Event?' After uploading the completed checklist, select 'Technical Audit Documentation (Confidential)' as 'Document Type.' Also, enter 'Completed Checklist' in the 'Comments' section. Click save and close the window.

Figure 24.11 Select the Right Document Type to Fulfill Audit Obligation

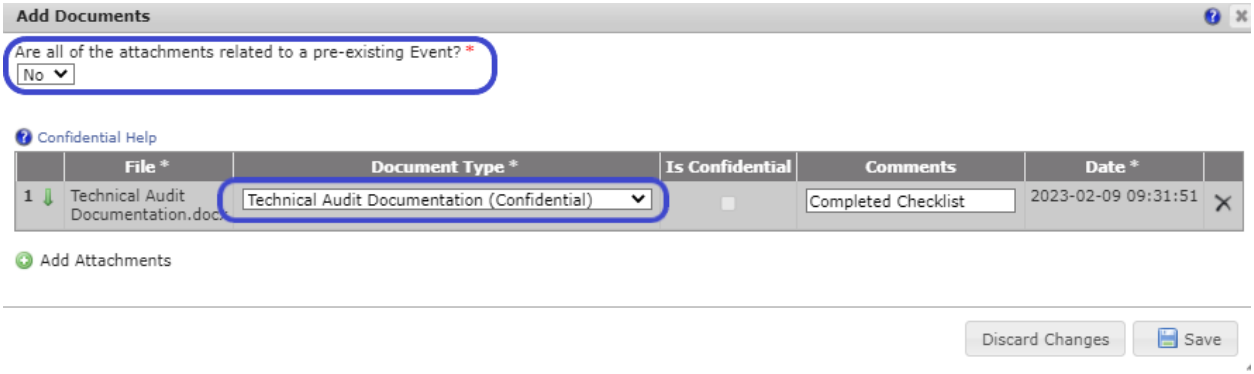
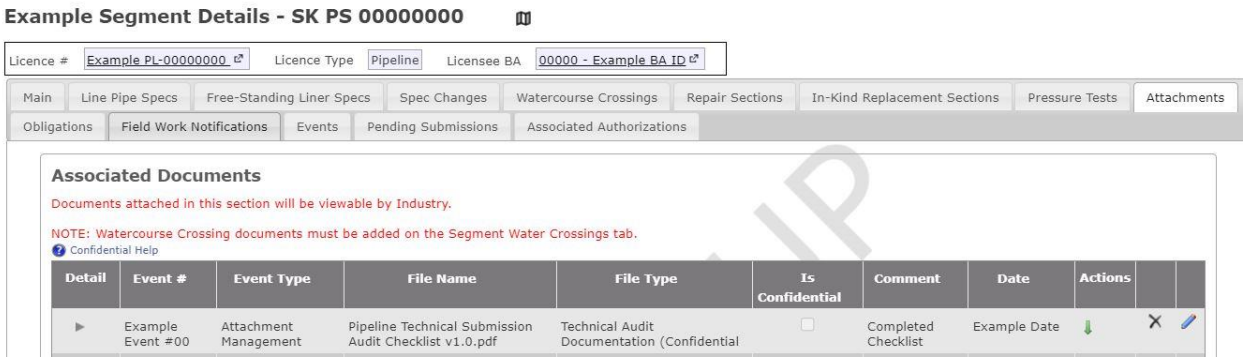


Figure 24.12 illustrates the 'Attachment' tab after uploading the completed checklist.

Figure 24.12 Attachment Tab after Uploading Completed Checklist



As illustrated in Figure 24.13, after uploading the completed checklist to the respective obligation type, the status of example obligation #000000 has been marked as 'Fulfilled.' Click the magnifier icon to load more details.

Figure 24.13 Obligation Tab in the Segment Details Page

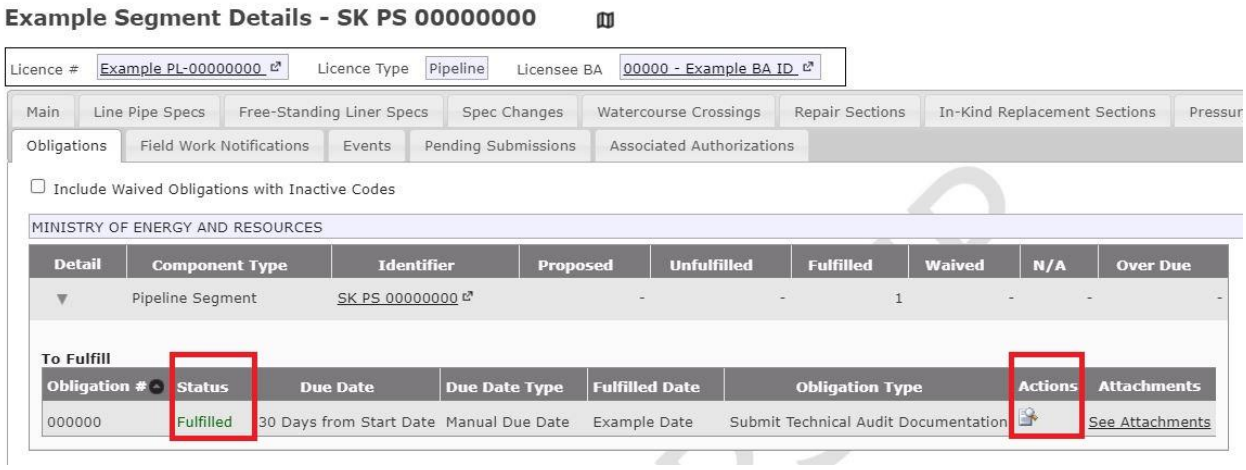
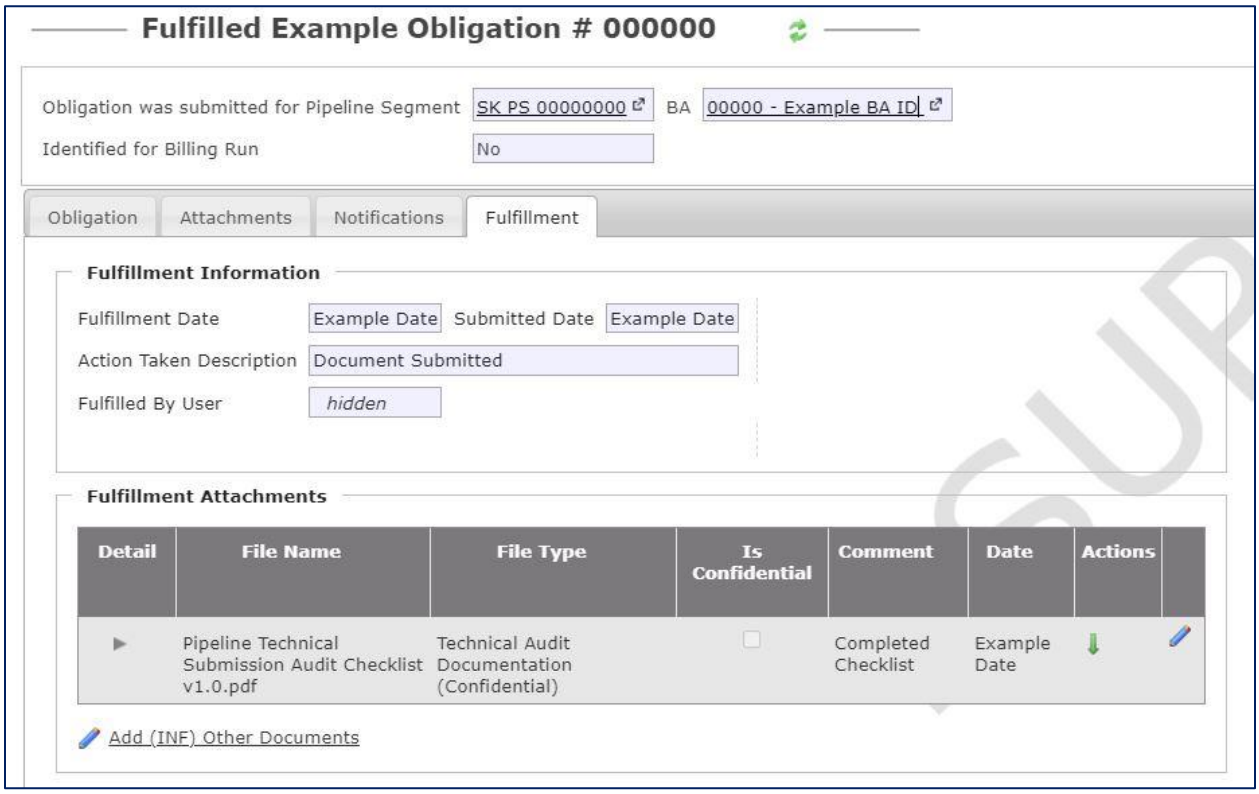


Figure 24.14 demonstrates an example of fulfilled obligation #000000, the completed and uploaded checklist. The technical audit obligation is fulfilled successfully.

Note: Uploading the completed checklist to the 'Attachments' tab under 'Obligation' will not fulfill this technical audit obligation. Instead, follow the procedure listed at the start of Section 24.4.3.

Figure 24.14 'Fulfillment' tab of the Fulfilled Example Obligation # 000000



As illustrated in Figure 24.15, licensees should notify ER Pipeline and Regulatory Section after successfully fulfilling the technical audit obligation by responding to the FTP site invitation email and Carbon Copy (CC): pipeline@gov.sk.ca.

Figure 24.15 Example email to notify ER Pipeline and Regulatory Section

From: First Last <first.last@examplecompany.com>
To: Pipeline and Regulatory Section <first.last@gov.sk.ca>
Cc: Pipelines ER <pipelines@gov.sk.ca>
Subject: Re: Pipeline and Regulatory Section shared the folder "Example Segment ID SK PS 00000000" with you.

Hello ER Pipeline and Regulatory Section,

All requested documents are uploaded to the FTP site.
The example obligation #000000 is fulfilled with the complete audit checklist.

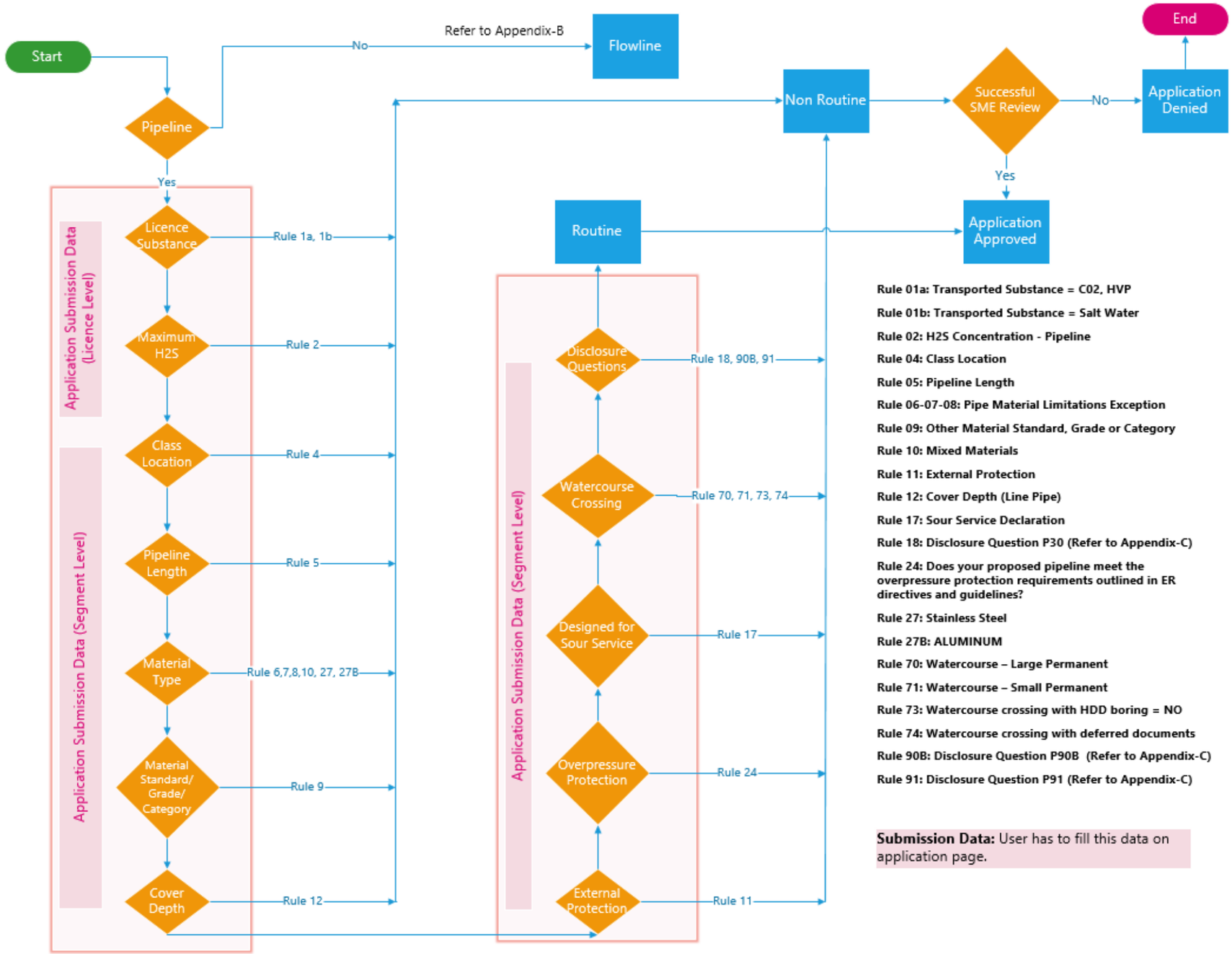
Thank you,
First Last

Appendix A: Risk Rules for Pipelines

Appendix A will outline the logic related to the risk rules associated with all application processes for Pipelines.

Note: Since the risk rule engine is dynamic, it means that it can change over time. To confirm if the rules found in the diagrams below are active, please refer to the Business Rules Table under the Support tab in IRIS.

New Licence/New Segment



Rule 01a: Transported Substance = C02, HVP

Rule 01b: Transported Substance = Salt Water

Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 10: Mixed Materials

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 70: Watercourse – Large Permanent

Rule 71: Watercourse – Small Permanent

Rule 73: Watercourse crossing with HDD boring = NO

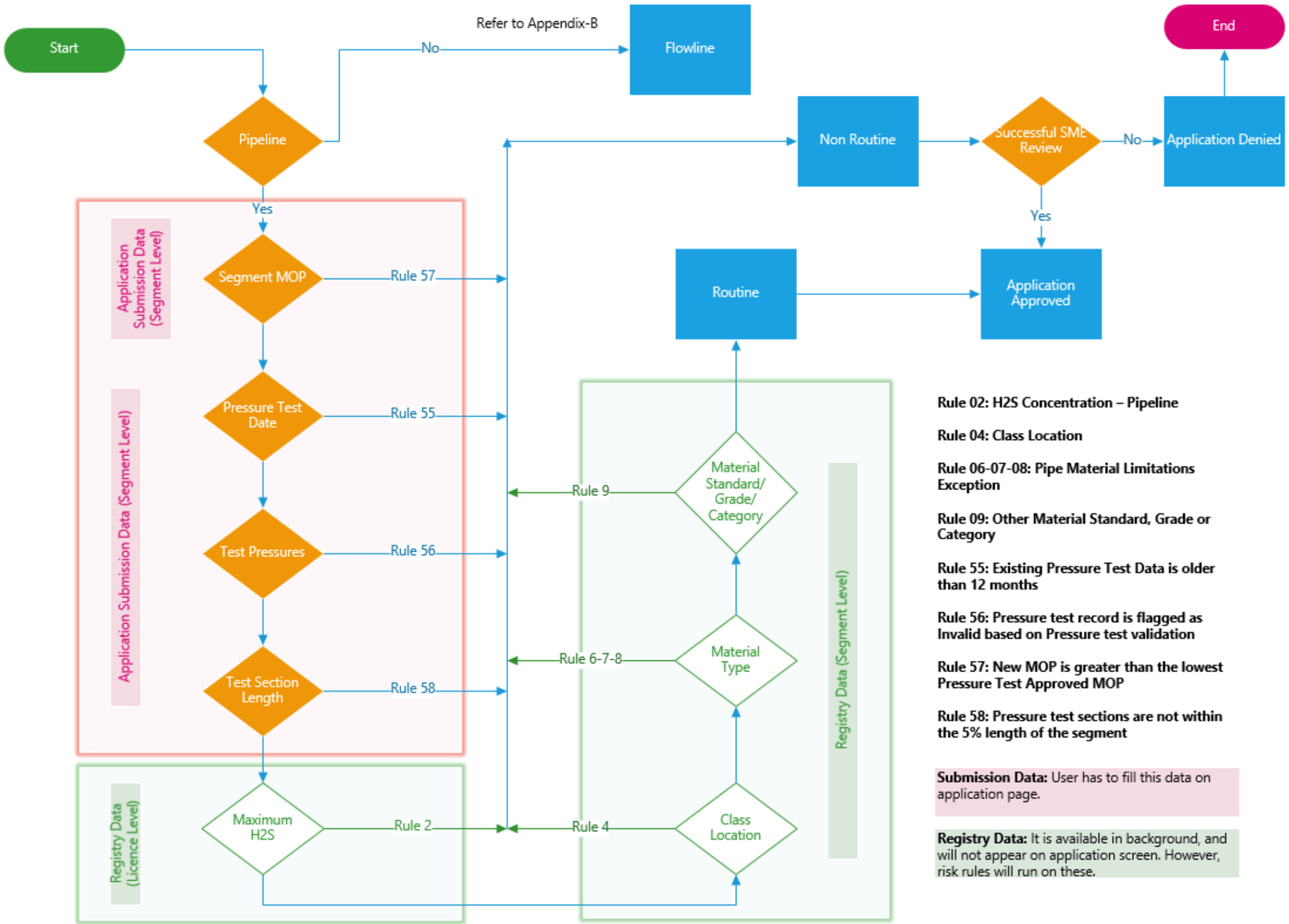
Rule 74: Watercourse crossing with deferred documents

Rule 90B: Disclosure Question P90B (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Leave to Open



Rule 02: H2S Concentration – Pipeline

Rule 04: Class Location

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 55: Existing Pressure Test Data is older than 12 months

Rule 56: Pressure test record is flagged as Invalid based on Pressure test validation

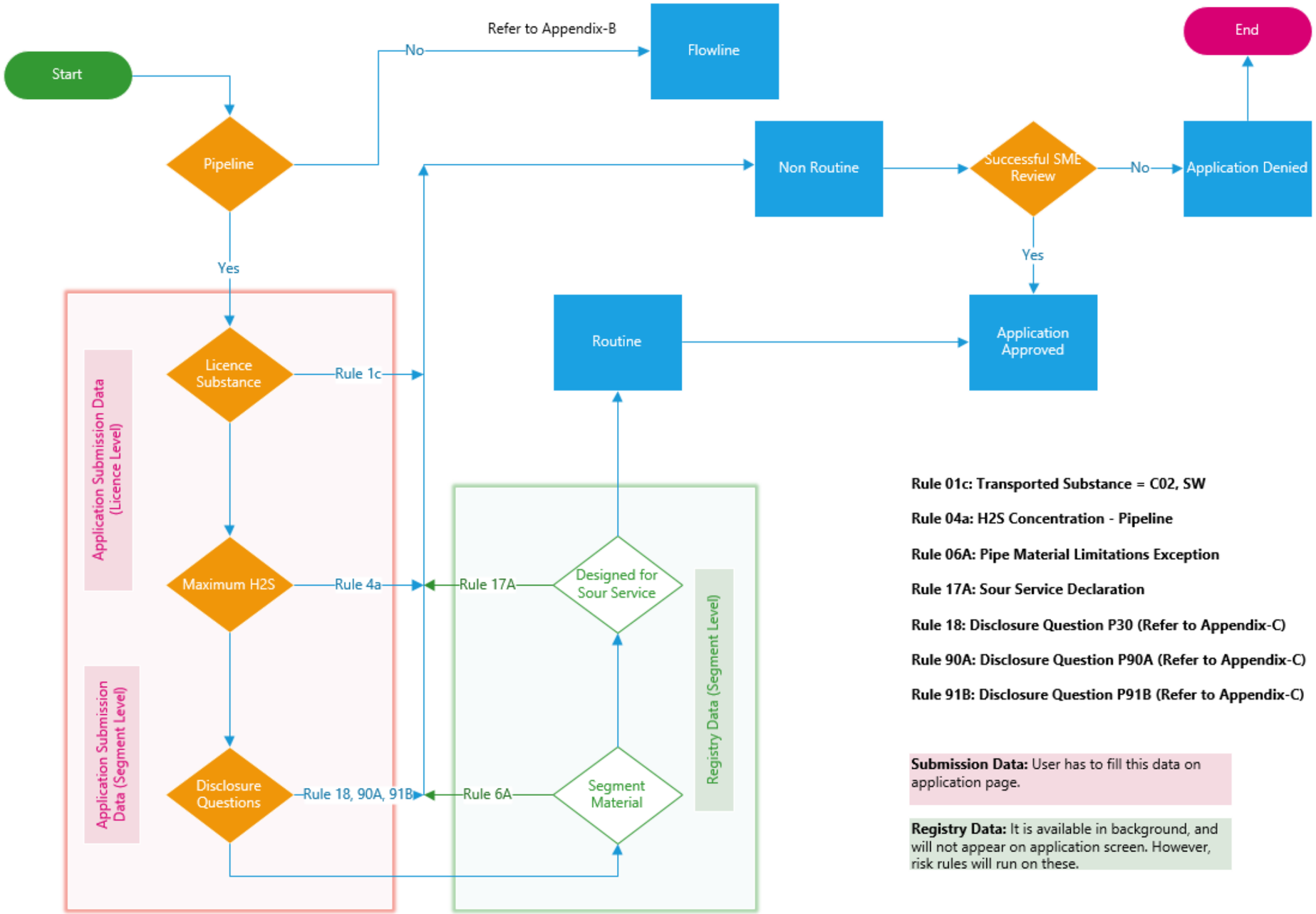
Rule 57: New MOP is greater than the lowest Pressure Test Approved MOP

Rule 58: Pressure test sections are not within the 5% length of the segment

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Licence Data Amendment



Rule 01c: Transported Substance = C02, SW

Rule 04a: H2S Concentration - Pipeline

Rule 06A: Pipe Material Limitations Exception

Rule 17A: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

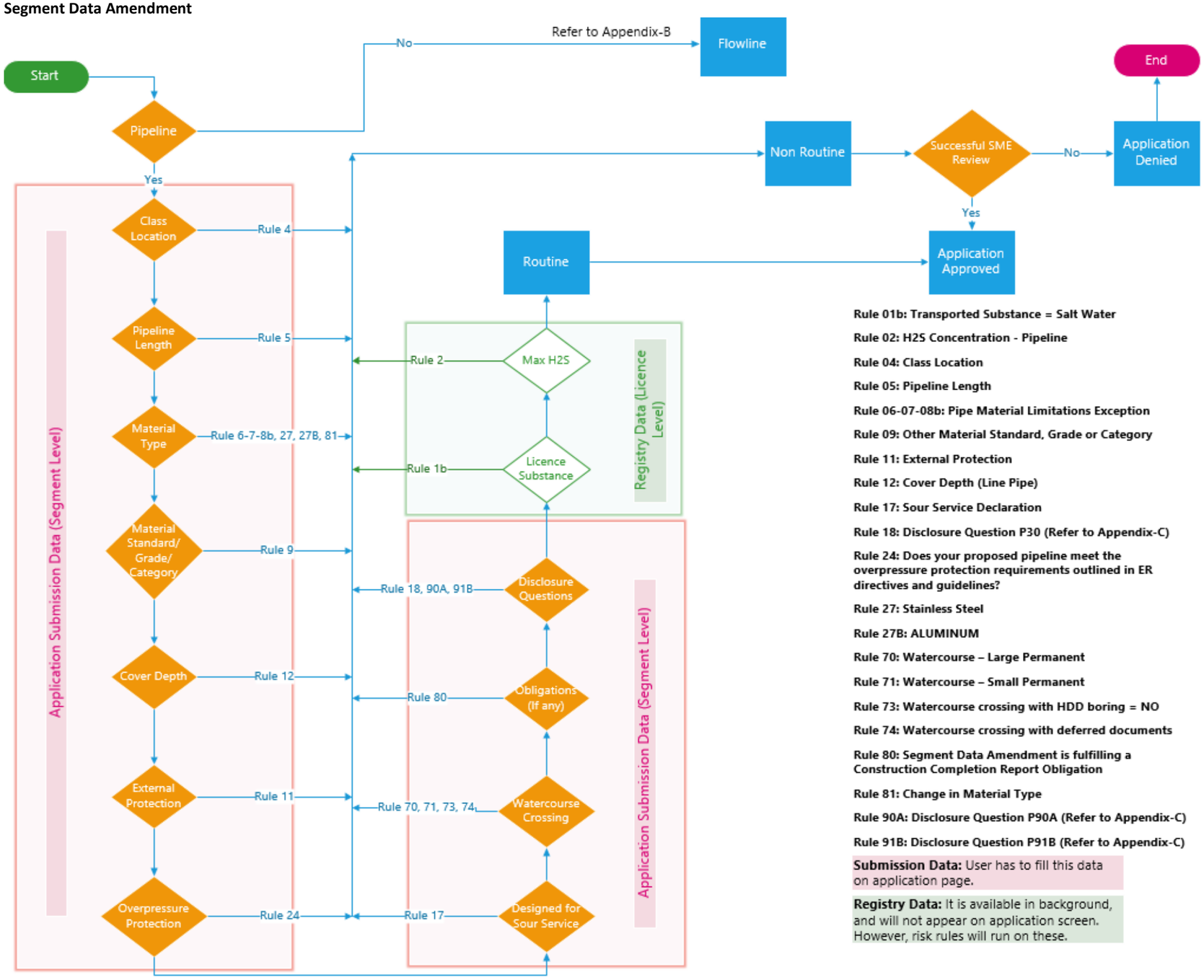
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91B: Disclosure Question P91B (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Segment Data Amendment



Rule 01b: Transported Substance = Salt Water

Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08b: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 70: Watercourse – Large Permanent

Rule 71: Watercourse – Small Permanent

Rule 73: Watercourse crossing with HDD boring = NO

Rule 74: Watercourse crossing with deferred documents

Rule 80: Segment Data Amendment is fulfilling a Construction Completion Report Obligation

Rule 81: Change in Material Type

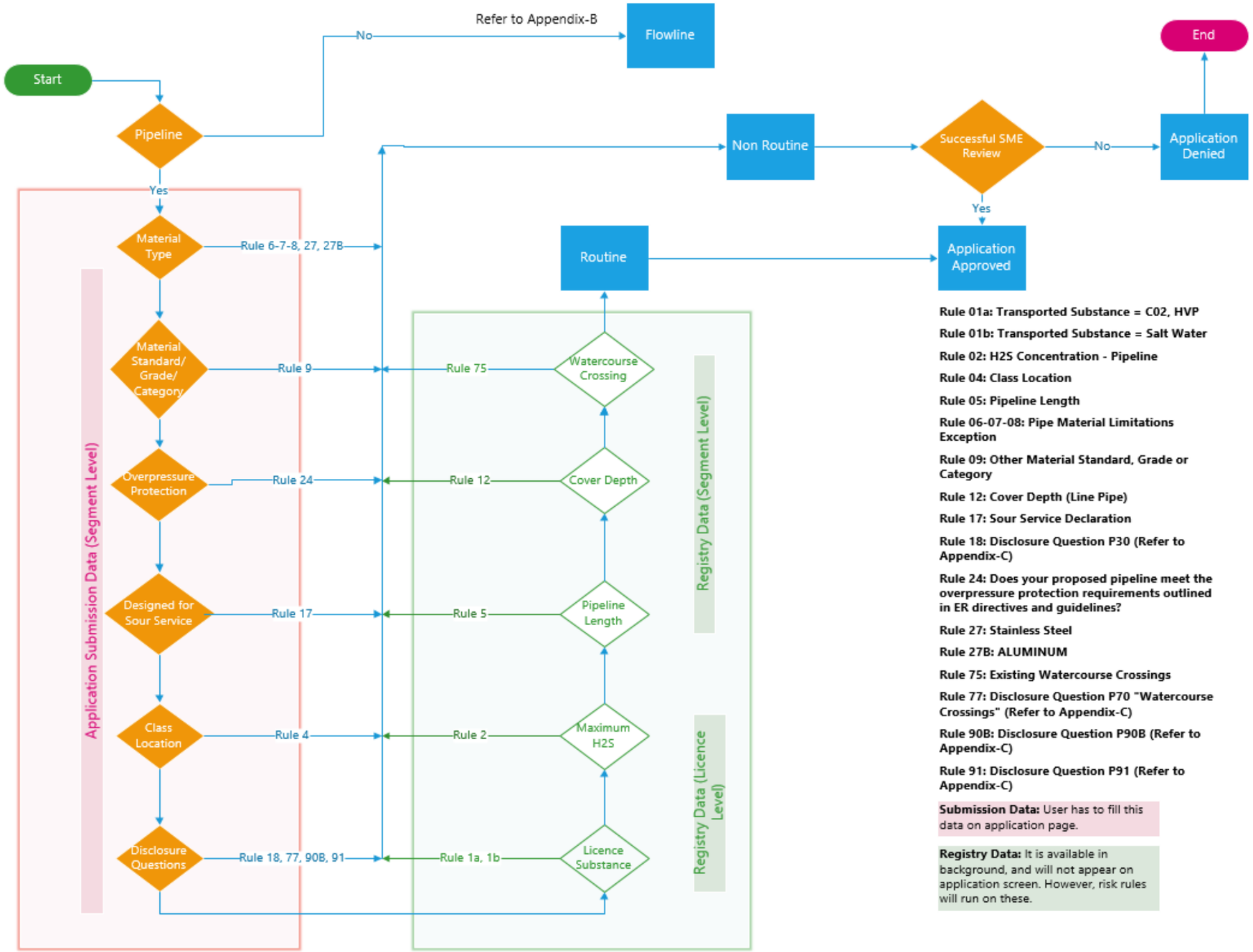
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91B: Disclosure Question P91B (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Liner Installation



Rule 01a: Transported Substance = C02, HVP

Rule 01b: Transported Substance = Salt Water

Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

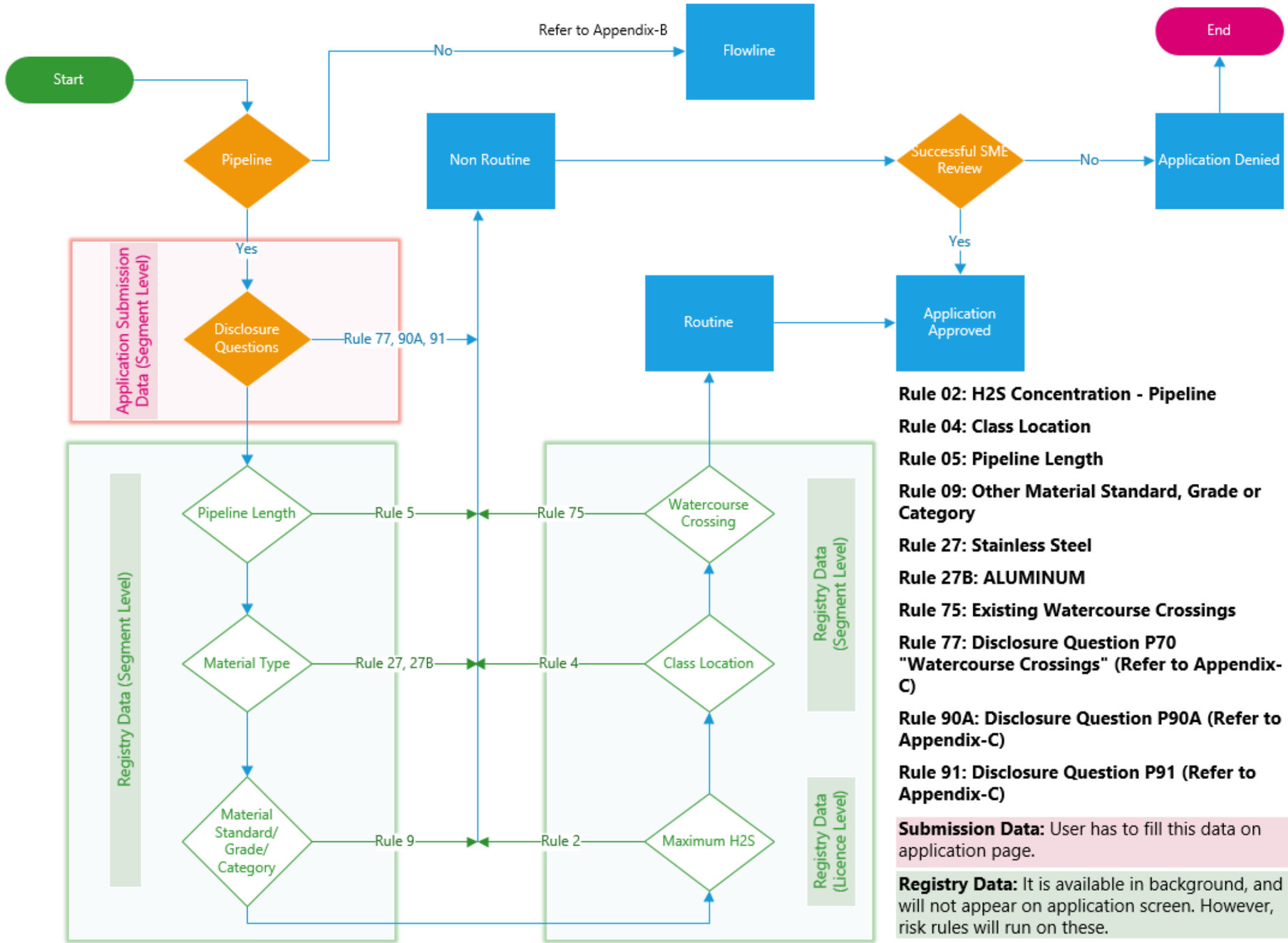
Rule 90B: Disclosure Question P90B (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Liner Removal



Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 09: Other Material Standard, Grade or Category

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

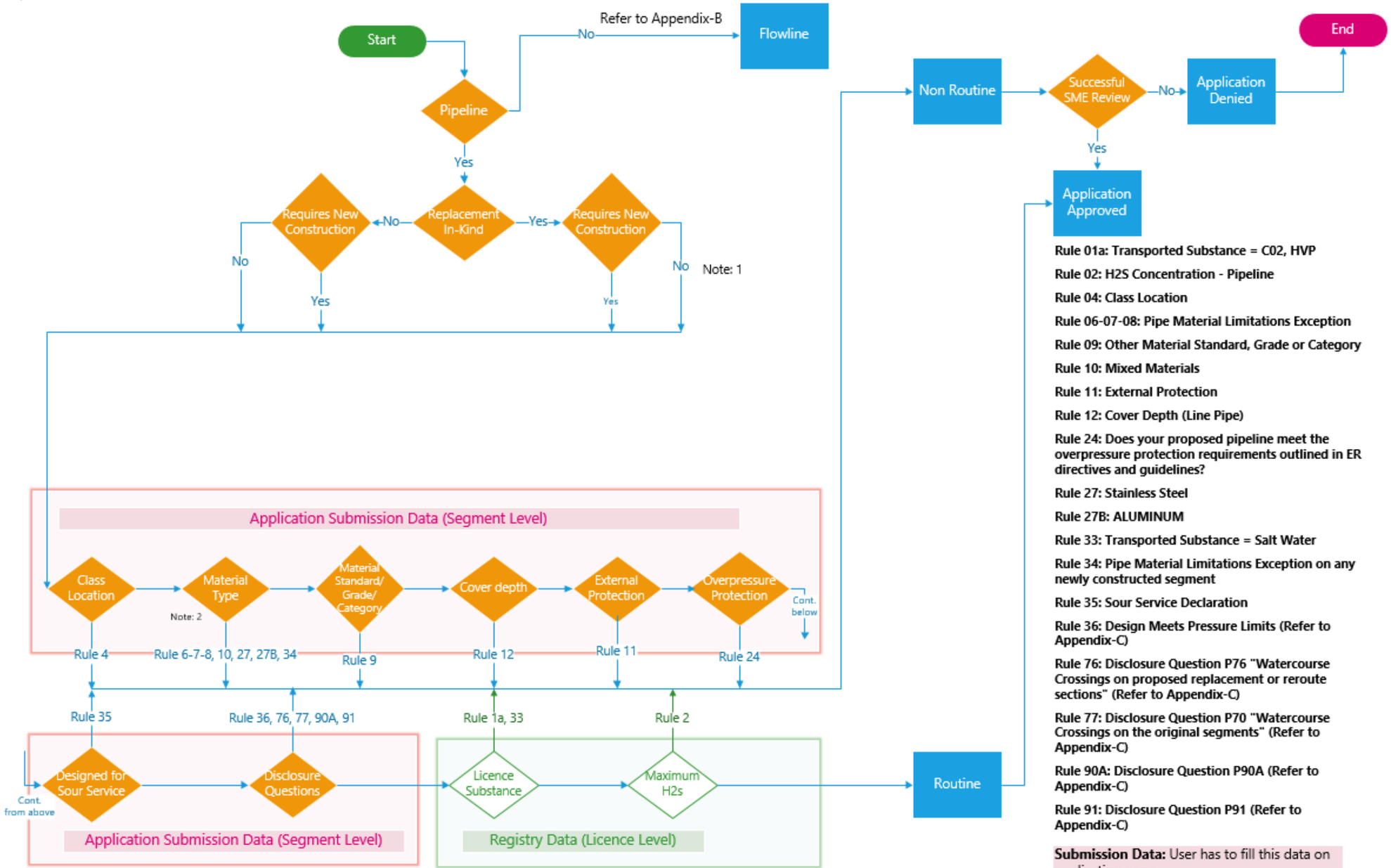
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

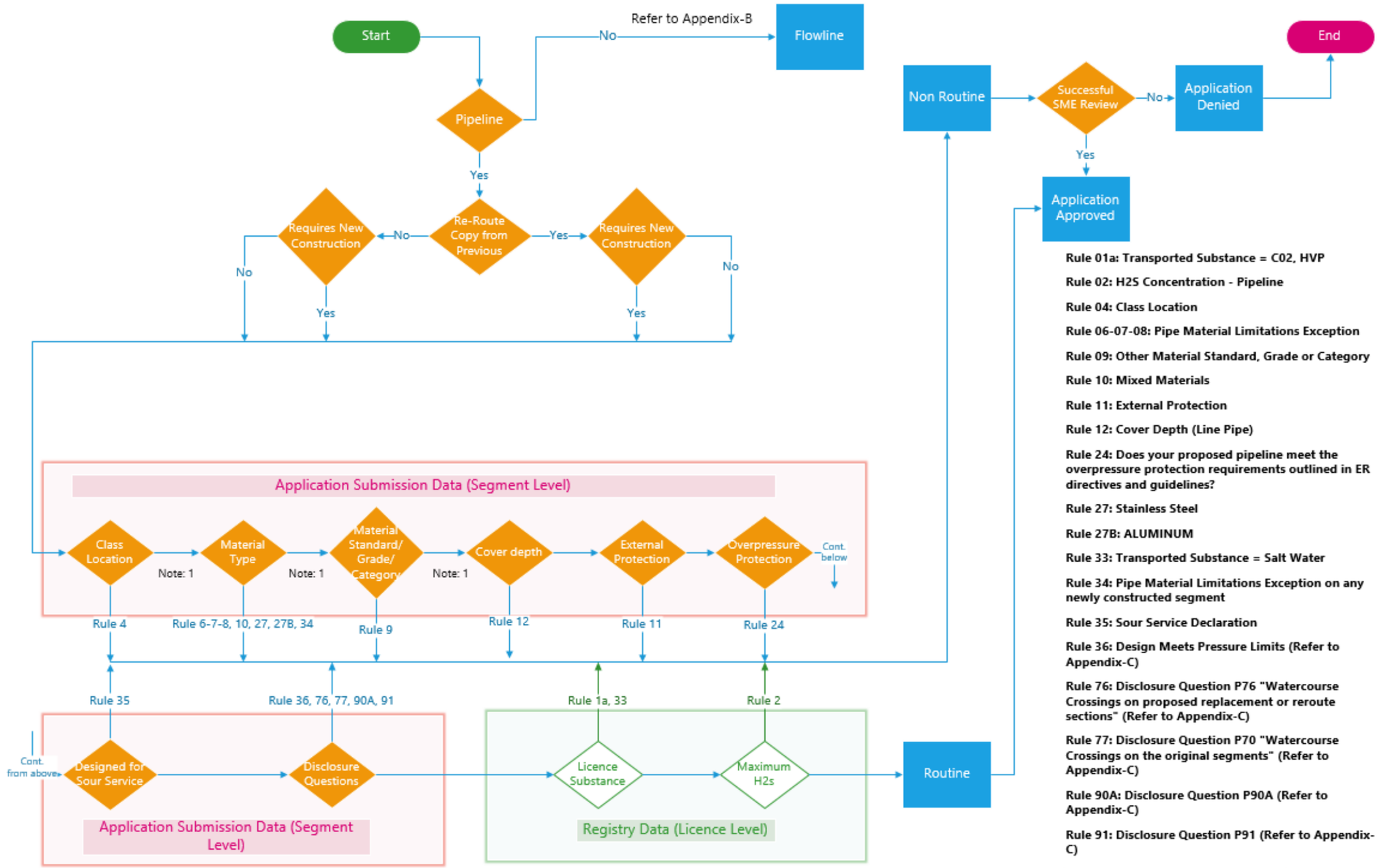
Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Replacement



Re-Route



Rule 01a: Transported Substance = C02, HVP

Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 10: Mixed Materials

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 33: Transported Substance = Salt Water

Rule 34: Pipe Material Limitations Exception on any newly constructed segment

Rule 35: Sour Service Declaration

Rule 36: Design Meets Pressure Limits (Refer to Appendix-C)

Rule 76: Disclosure Question P76 "Watercourse Crossings on proposed replacement or reroute sections" (Refer to Appendix-C)

Rule 77: Disclosure Question P70 "Watercourse Crossings on the original segments" (Refer to Appendix-C)

Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

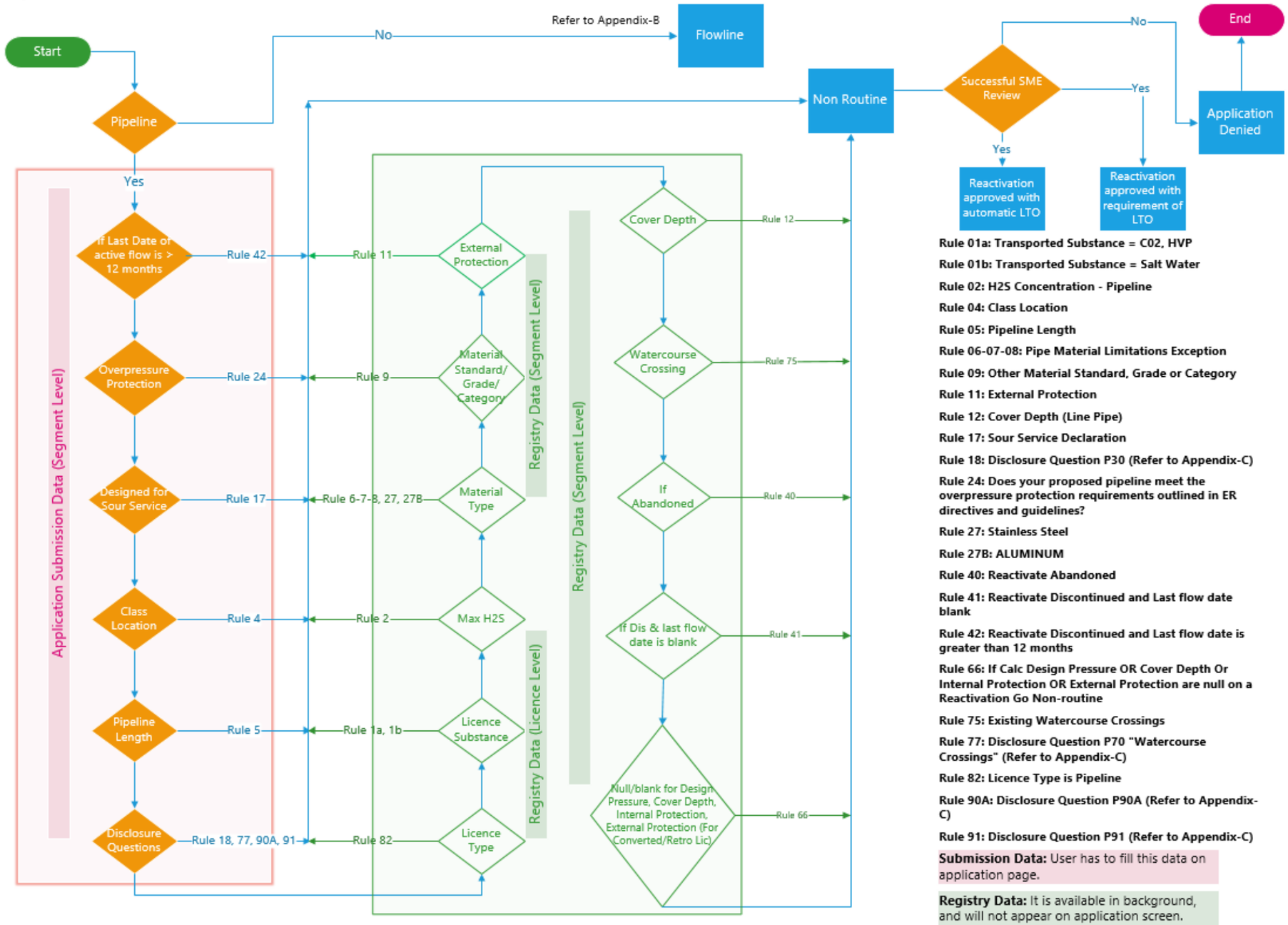
Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Note: 1
For Copy from Previous, with and without New Construction Date case, these fields are not editable and following risk rules (Rule 6-7-8, 10, 27, 27B, 34, Rule 9, Rule 11, and Rule 12) will be triggered from Registry Data instead of Application Submission Data.

Segment Reactivation



Rule 01a: Transported Substance = C02, HVP

Rule 01b: Transported Substance = Salt Water

Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 40: Reactivate Abandoned

Rule 41: Reactivate Discontinued and Last flow date blank

Rule 42: Reactivate Discontinued and Last flow date is greater than 12 months

Rule 66: If Calc Design Pressure OR Cover Depth Or Internal Protection OR External Protection are null on a Reactivation Go Non-routine

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

Rule 82: Licence Type is Pipeline

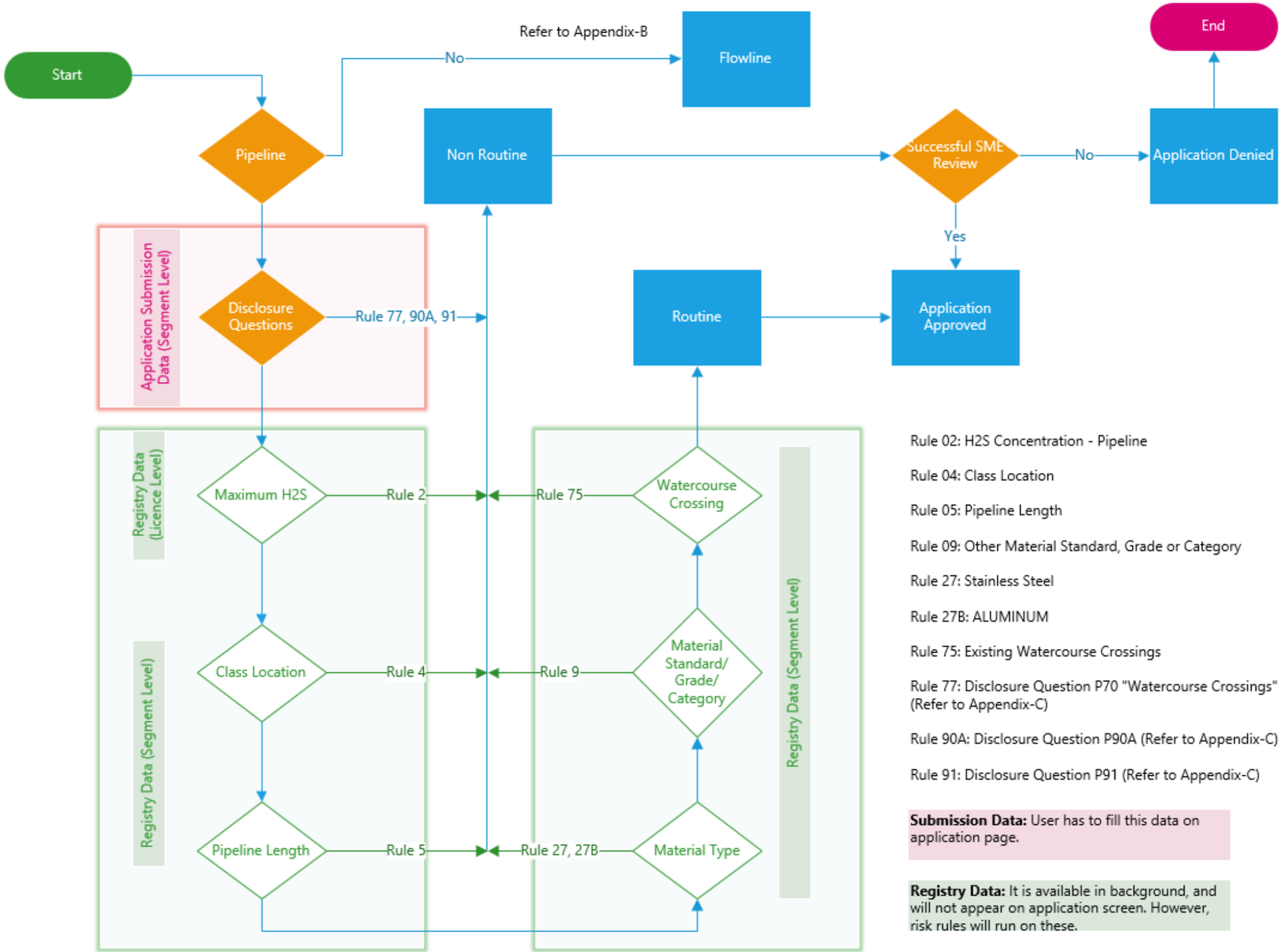
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Segment Removal



Rule 02: H2S Concentration - Pipeline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 09: Other Material Standard, Grade or Category

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

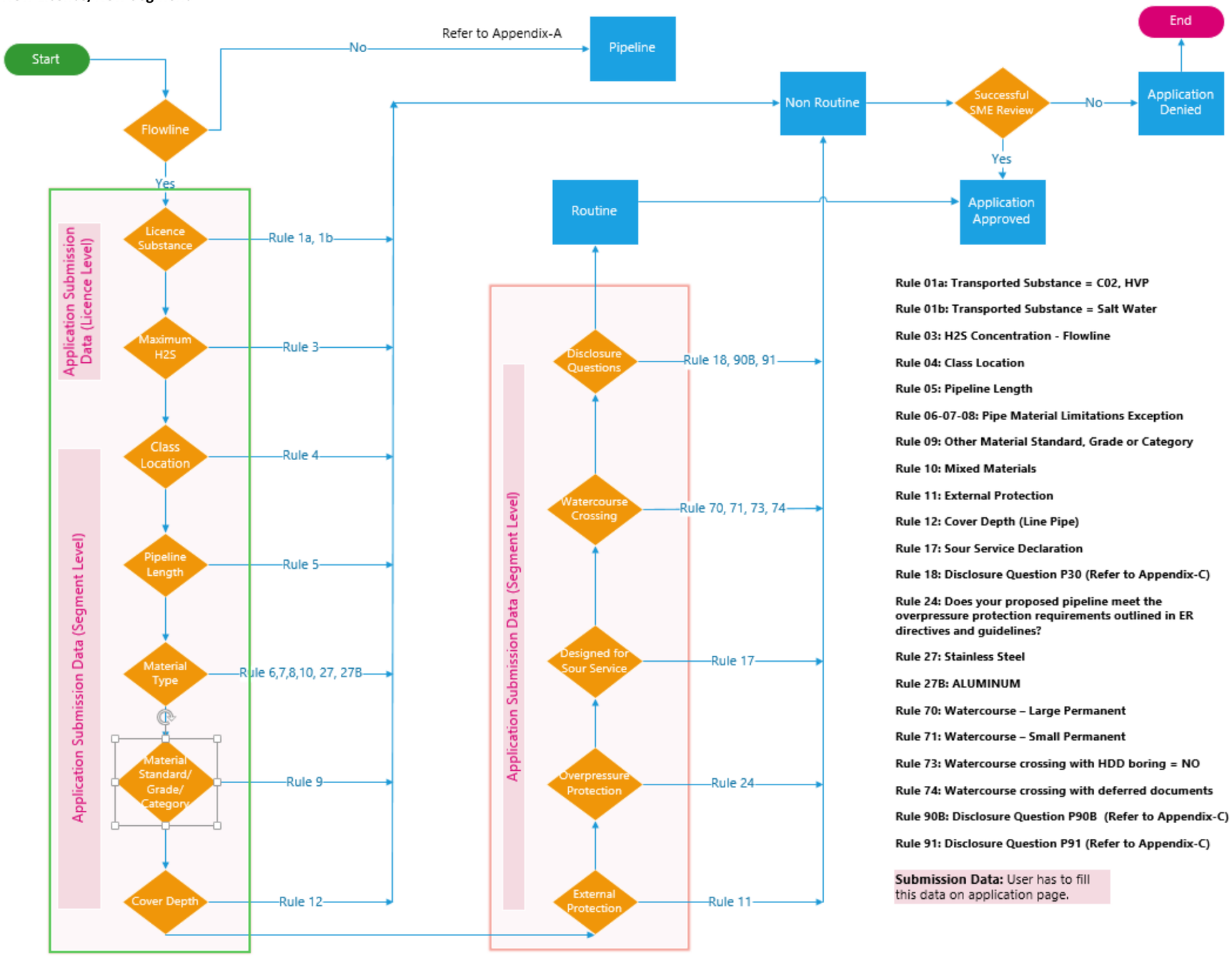
Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Appendix B: Risk Rules for Flowlines

Appendix B will outline the logic related to the risk rules associated with all application processes for Flowlines.

Note: Since the risk rule engine is dynamic, it means that it can change over time. To confirm if the rules found in the diagrams below are active, please refer to the Business Rules Table under the Support tab in IRIS.

New Licence/New Segment



Rule 01a: Transported Substance = C02, HVP

Rule 01b: Transported Substance = Salt Water

Rule 03: H2S Concentration - Flowline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 10: Mixed Materials

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 70: Watercourse – Large Permanent

Rule 71: Watercourse – Small Permanent

Rule 73: Watercourse crossing with HDD boring = NO

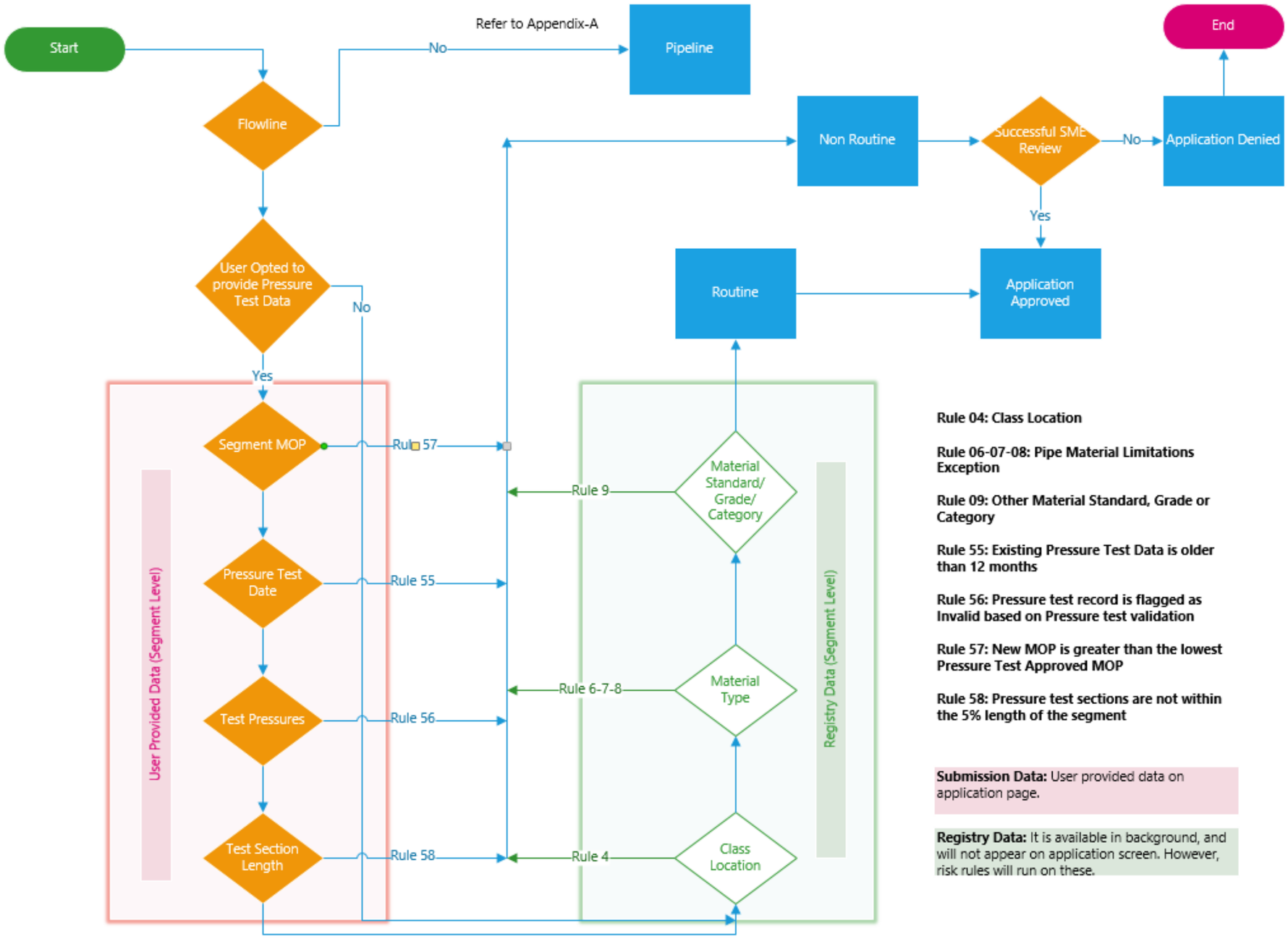
Rule 74: Watercourse crossing with deferred documents

Rule 90B: Disclosure Question P90B (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Leave to Open



Rule 04: Class Location

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 55: Existing Pressure Test Data is older than 12 months

Rule 56: Pressure test record is flagged as Invalid based on Pressure test validation

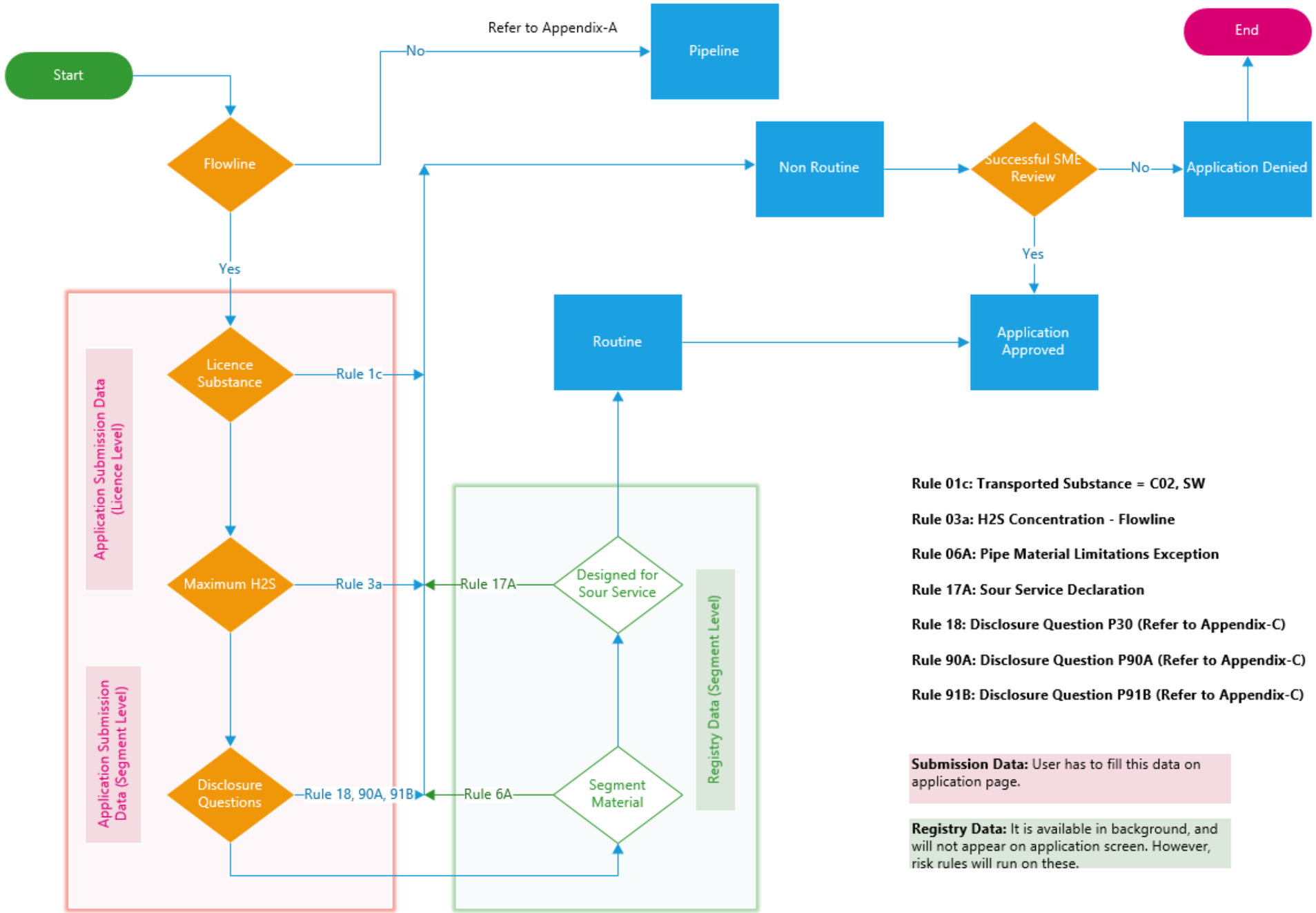
Rule 57: New MOP is greater than the lowest Pressure Test Approved MOP

Rule 58: Pressure test sections are not within the 5% length of the segment

Submission Data: User provided data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Licence Data Amendment



Rule 01c: Transported Substance = C02, SW

Rule 03a: H2S Concentration - Flowline

Rule 06A: Pipe Material Limitations Exception

Rule 17A: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

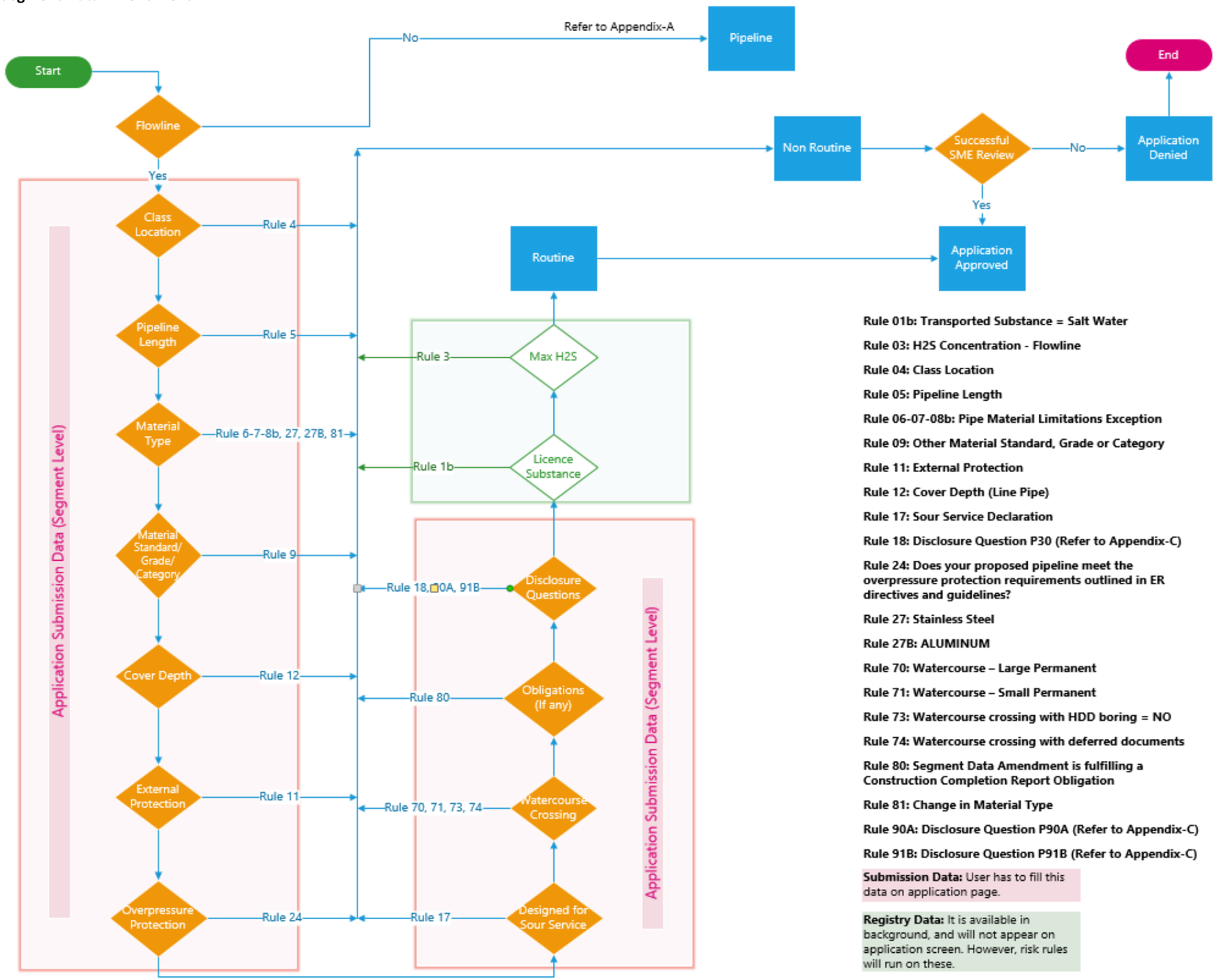
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91B: Disclosure Question P91B (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Segment Data Amendment



Rule 01b: Transported Substance = Salt Water

Rule 03: H2S Concentration - Flowline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08b: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 70: Watercourse – Large Permanent

Rule 71: Watercourse – Small Permanent

Rule 73: Watercourse crossing with HDD boring = NO

Rule 74: Watercourse crossing with deferred documents

Rule 80: Segment Data Amendment is fulfilling a Construction Completion Report Obligation

Rule 81: Change in Material Type

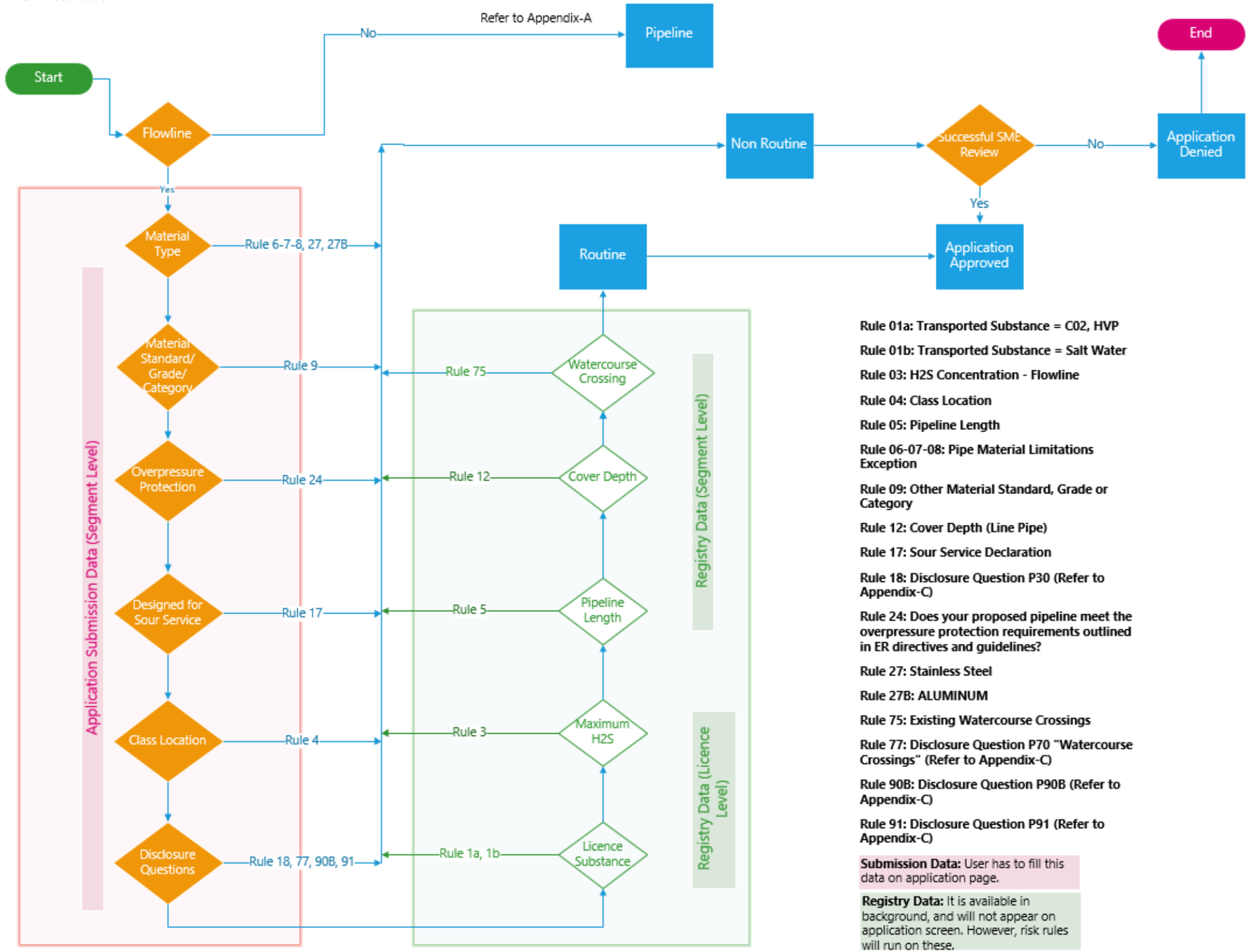
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91B: Disclosure Question P91B (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Liner Installation



Rule 01a: Transported Substance = C02, HVP

Rule 01b: Transported Substance = Salt Water

Rule 03: H2S Concentration - Flowline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 12: Cover Depth (Line Pipe)

Rule 17: Sour Service Declaration

Rule 18: Disclosure Question P30 (Refer to Appendix-C)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

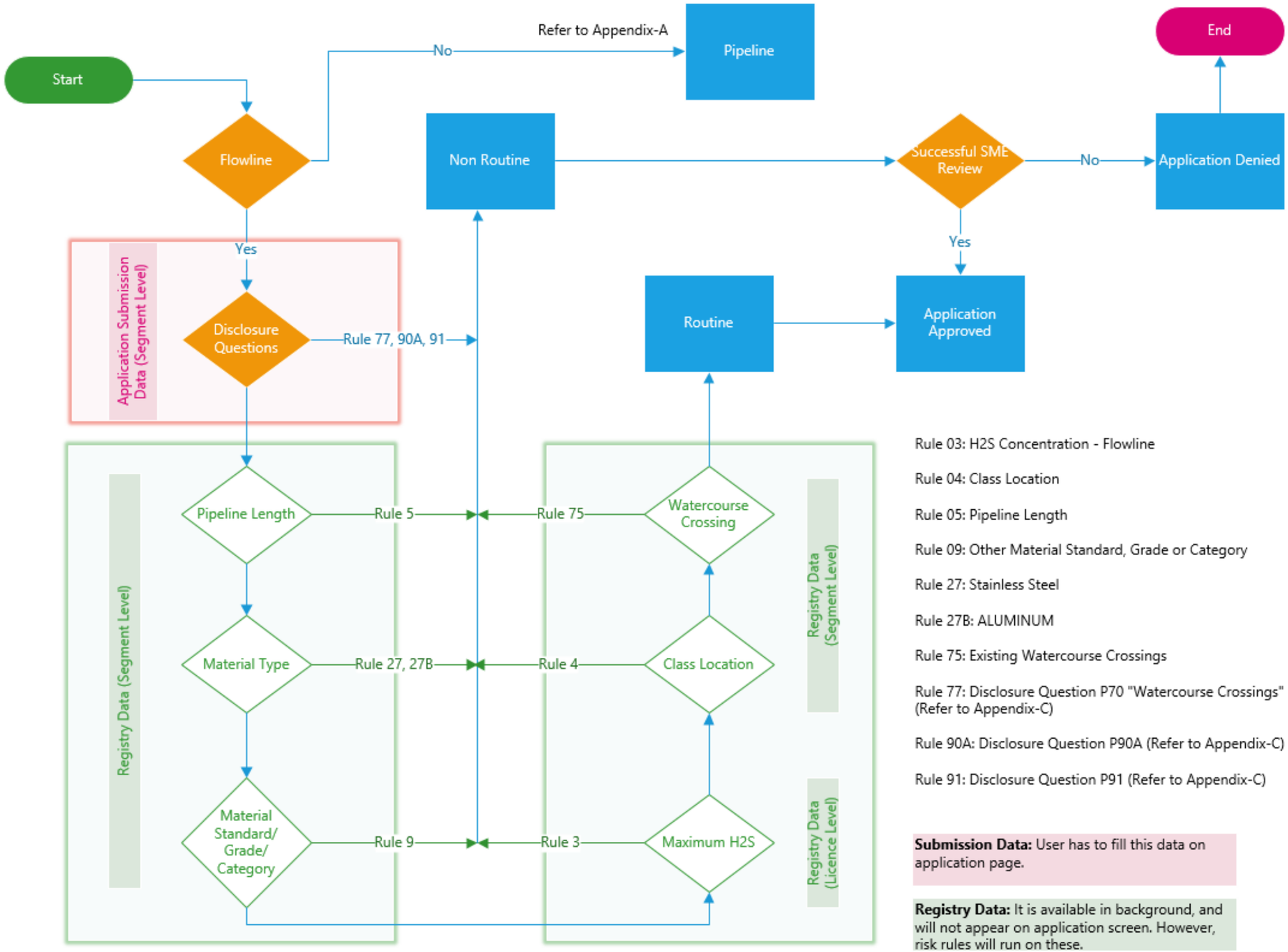
Rule 90B: Disclosure Question P90B (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Liner Removal



Rule 03: H2S Concentration - Flowline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 09: Other Material Standard, Grade or Category

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

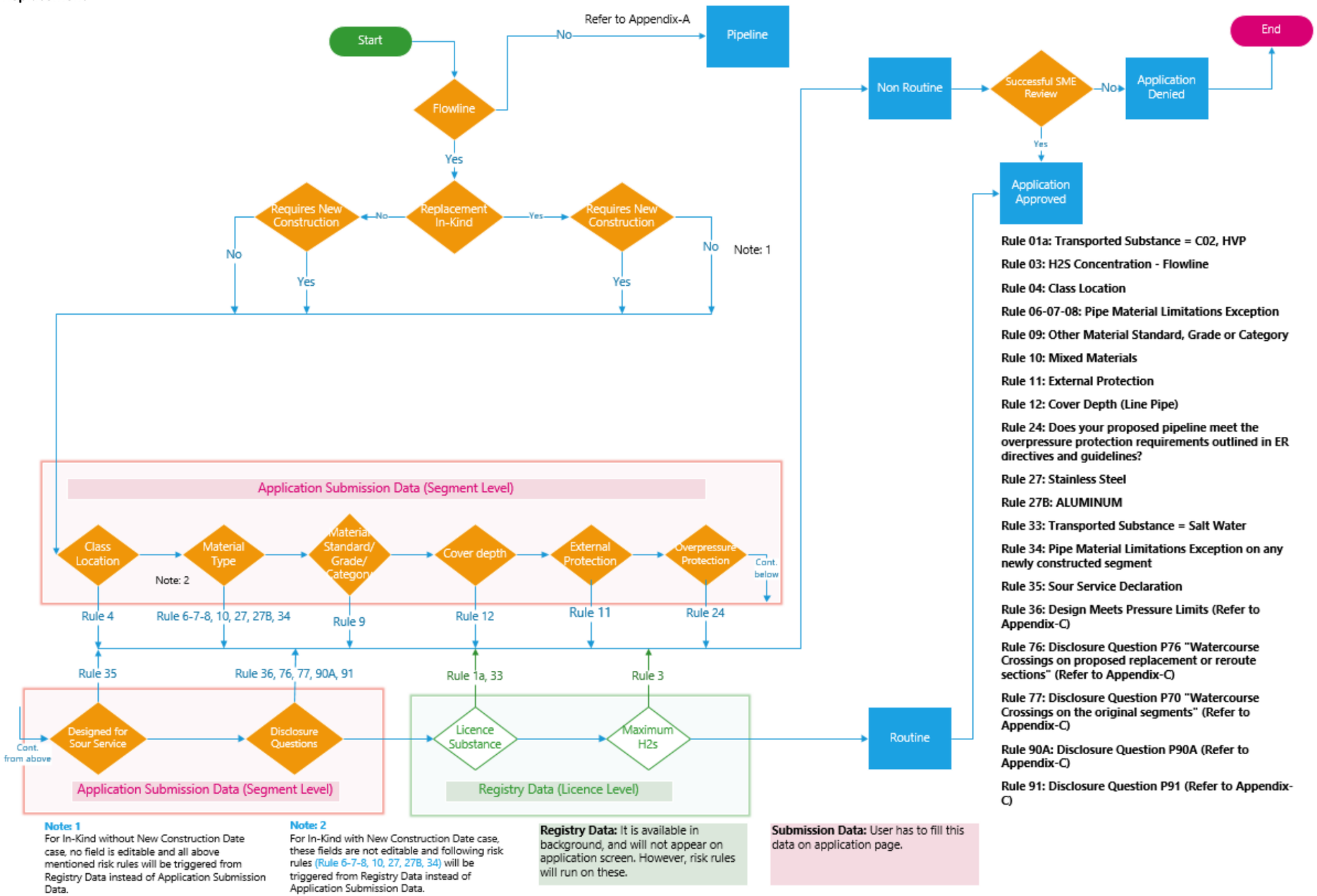
Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

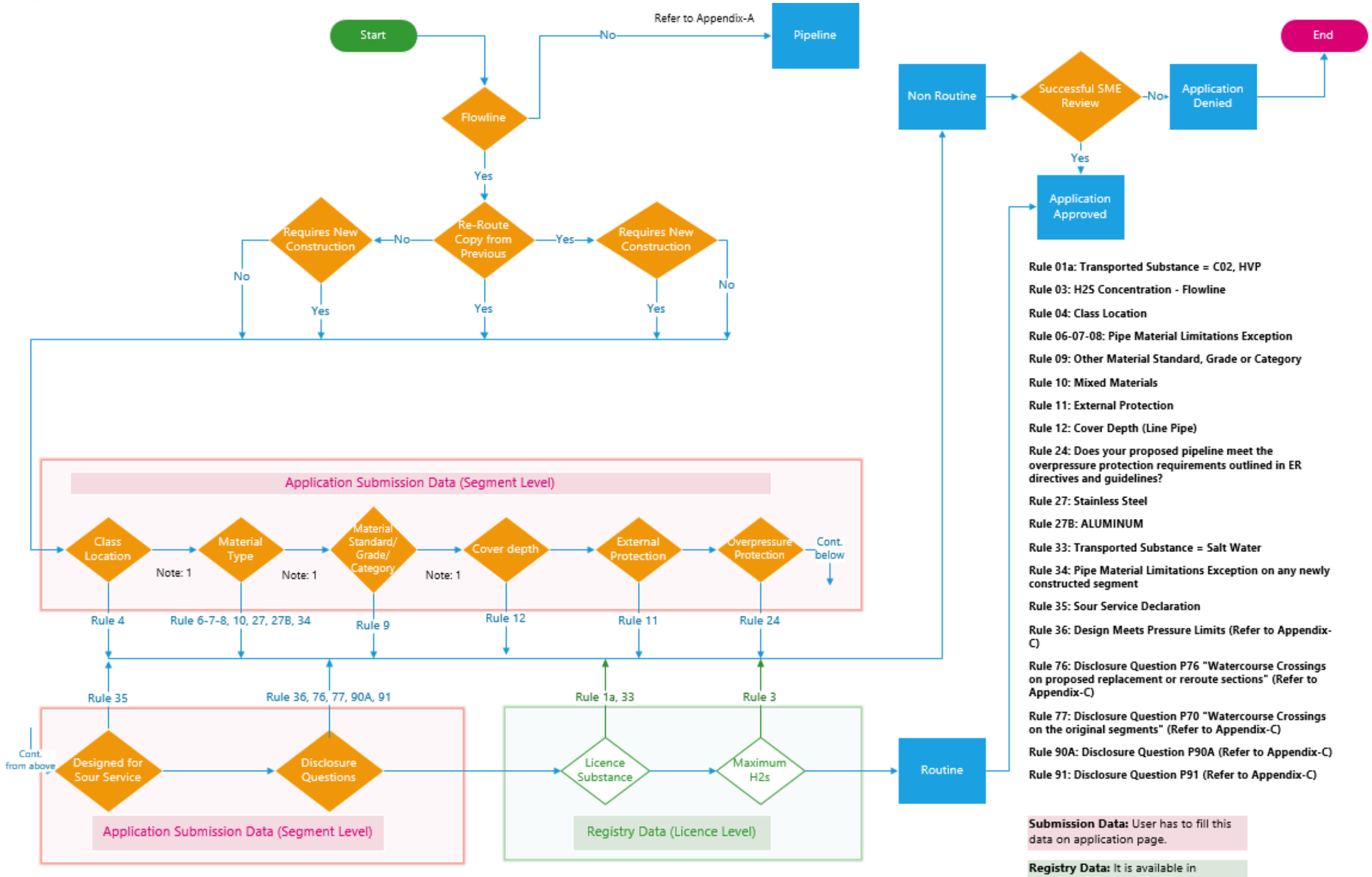
Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Replacement



Re-Route



Rule 01a: Transported Substance = C02, HVP

Rule 03: H2S Concentration - Flowline

Rule 04: Class Location

Rule 06-07-08: Pipe Material Limitations Exception

Rule 09: Other Material Standard, Grade or Category

Rule 10: Mixed Materials

Rule 11: External Protection

Rule 12: Cover Depth (Line Pipe)

Rule 24: Does your proposed pipeline meet the overpressure protection requirements outlined in ER directives and guidelines?

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 33: Transported Substance = Salt Water

Rule 34: Pipe Material Limitations Exception on any newly constructed segment

Rule 35: Sour Service Declaration

Rule 36: Design Meets Pressure Limits (Refer to Appendix-C)

Rule 76: Disclosure Question P76 "Watercourse Crossings on proposed replacement or reroute sections" (Refer to Appendix-C)

Rule 77: Disclosure Question P70 "Watercourse Crossings on the original segments" (Refer to Appendix-C)

Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

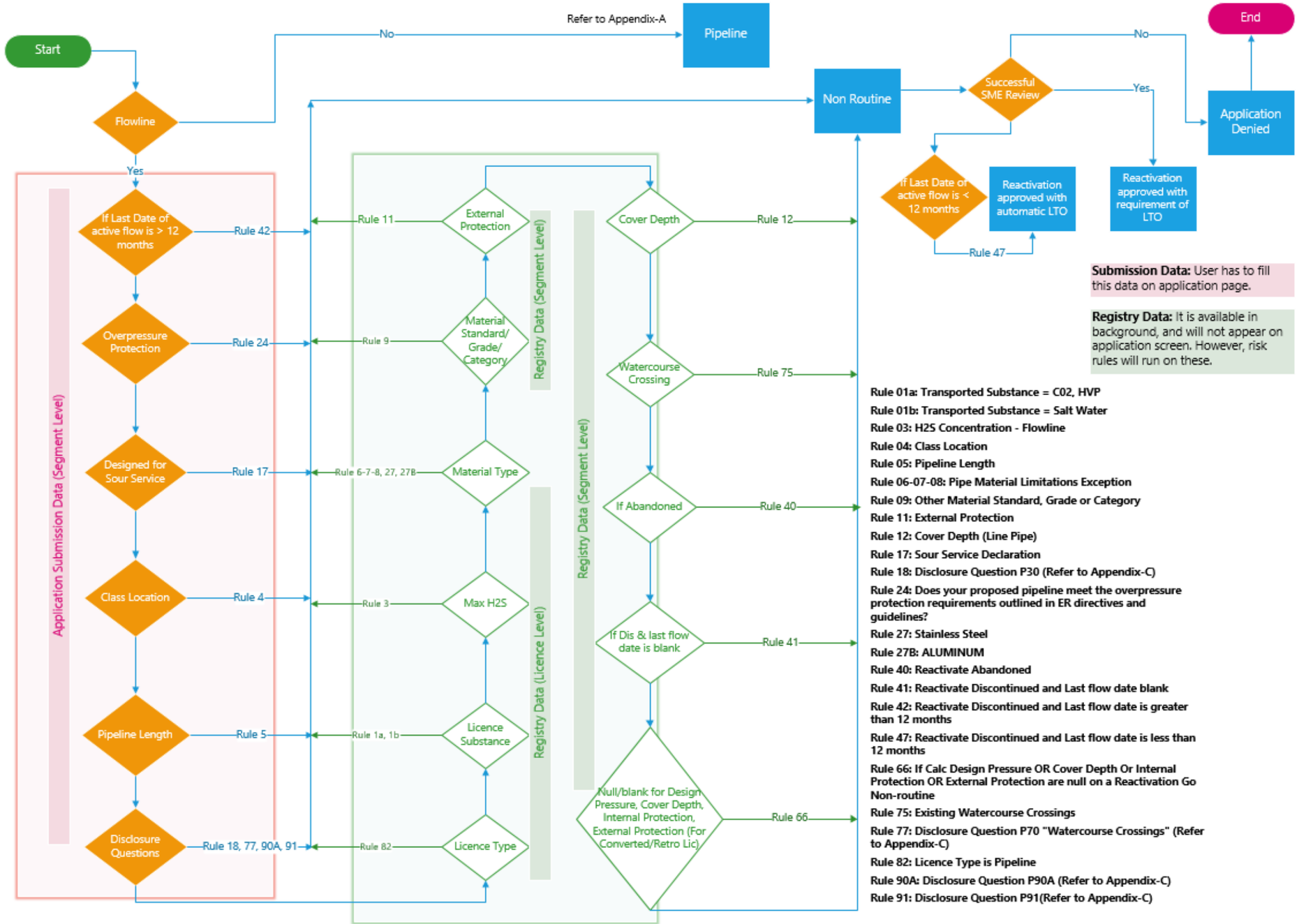
Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

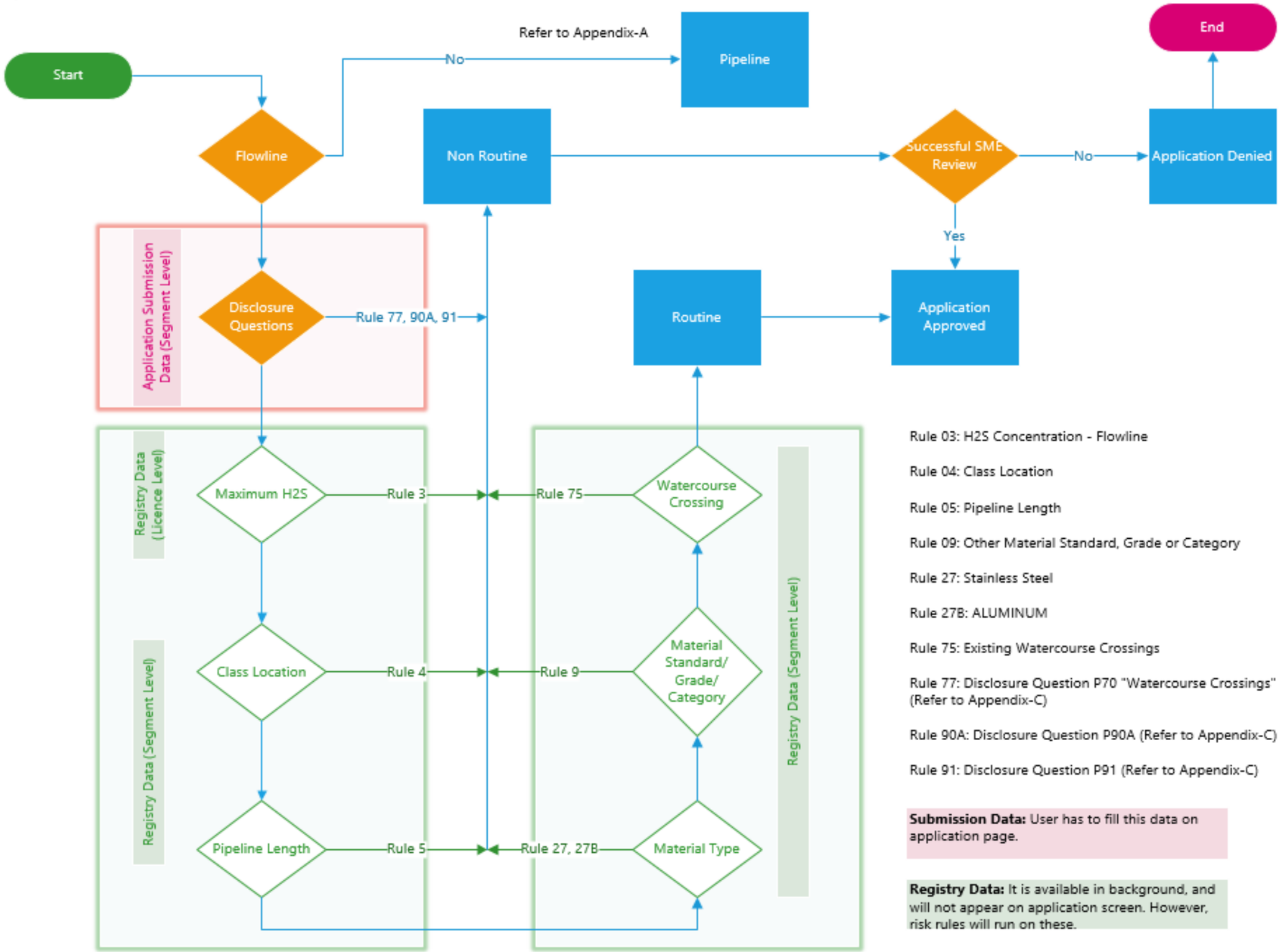
Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Note: 1
For Copy from Previous, with and without New Construction Date case, these fields are not editable and following risk rules (Rule 6-7-8, 10, 27, 27B, 34, Rule 9, Rule 11, and Rule 12) will be triggered from Registry Data instead of Application Submission Data.

Segment Reactivation



Segment Removal



Rule 03: H2S Concentration - Flowline

Rule 04: Class Location

Rule 05: Pipeline Length

Rule 09: Other Material Standard, Grade or Category

Rule 27: Stainless Steel

Rule 27B: ALUMINUM

Rule 75: Existing Watercourse Crossings

Rule 77: Disclosure Question P70 "Watercourse Crossings" (Refer to Appendix-C)

Rule 90A: Disclosure Question P90A (Refer to Appendix-C)

Rule 91: Disclosure Question P91 (Refer to Appendix-C)

Submission Data: User has to fill this data on application page.

Registry Data: It is available in background, and will not appear on application screen. However, risk rules will run on these.

Appendix C: Disclosure Questions

Appendix C will outline the disclosure questions associated with the following application processes for pipelines and flowlines:

- New Licence/New Segment
- Licence Data Amendment
- Segment Data Amendment
- Liner Installation
- Liner Removal
- Replacement
- Re-Route
- Reactivation
- Segment Removal

Please note that pipelines and flowlines will have the same disclosure questions associated with them.

The following business processes do not have disclosure questions associated with them, and therefore, will be excluded from this section:

- Retroactive Licence
- Leave to Open
- Repair
- Discontinuation
- Abandonment
- Field Work Notification
- Construction Completion Report
- Licence Split
- Segment Split
- Licence Transfer
- Segment Cancellation

New Licence/New Segment

Table C.0.1 outlines the disclosure questions that will be populated for New Licence and New Segment applications.

Table C.0.1: New Licence/New Segment Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Do you have a CSA Z662 Compliant Safety and Loss Management System in place, and has it been implemented?[1]	P01	Yes/No
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90B	Yes/No
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Has the proposed segment(s) been designed to meet the pressure limits of the system, including downstream components?	P30	Yes/No
Disclosure Questions for Utilities		
Does the proposed segment(s) cross or is within 30 meters of other pipelines, railways and/or utilities?	P24	Yes/No

[1] This question will only appear if your BA has not answered 'Yes' to this question in a previous application. Once P01 is answered 'Yes', the question no longer appears for the BA.

Licence Data Amendment

Table C.0.2 outlines the disclosure questions that will be populated for the Licence Data Amendment application.

Table C.0.2: Licence Data Amendment Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Has the proposed segment(s) been designed to meet the pressure limits of the system, including downstream components?	P30	Yes/No
Other Disclosure Questions		
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90A	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91B	Yes/No/NA

Segment Data Amendment

Table C.0.3 outlines the disclosure questions that will be populated for the Segment Data Amendment application.

Table C.0.3: Segment Data Amendment Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Has the proposed segment(s) been designed to meet the pressure limits of the system, including downstream components?	P30	Yes/No
Other Disclosure Questions		
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90A	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91B	Yes/No/NA

Liner Installation

Table C.0.4 outlines the disclosure questions that will be populated for the Liner Installation application.

Table C.0.4: Liner Installation Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Has the proposed segment(s) been designed to meet the pressure limits of the system, including downstream components?	P30	Yes/No
Do any of the existing registry segments, associated with this application, cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, Converted from the Ministry's legacy database; and, (2) Has no system records regarding watercourses.	P70	No/Yes
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90B	Yes/No
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Disclosure Questions for Utilities[1]		
Does the proposed field work cross or is within 30 meters of other pipelines and/or utilities?	P54	Yes/No

[1] The disclosure question for utilities will not appear if the liner installation activities will not involve ground disturbance.

Liner Removal

Table C.0.5 outlines the disclosure questions that will be populated for the Liner Removal application.

Table C.0.5: Liner Removal Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90A	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Do any of the existing registry segments, associated with this application, cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, Converted from the Ministry's legacy database; and, (2) Has no system records regarding watercourses.	P70	No/Yes
Disclosure Questions for Utilities[1]		
Does the proposed field work cross or is within 30 meters of other pipelines and/or utilities?	P54	Yes/No

[1] The disclosure question for utilities will not appear if the liner removal activities will not involve ground disturbance.

Replacement

Table C.0.6 outlines the disclosure questions that will be populated for the Replacement applications.

Table C.0.6: Replacement Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Replacements/Re-Routes		
Has the proposed replacement been designed to meet pressure limits of the system, including downstream components?	P32	Yes/No
Do any of the existing registry segments, associated with this application, cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, Converted from the Ministry's legacy database; and, (2) Has no system records regarding watercourses.	P70	No/Yes

Will any of the proposed replacement or reroute sections cross a permanent watercourse?	P76	No/Yes
Will any of the proposed replacement or reroute sections occur in an area where the Class Location is greater than 2?	P77	No/Yes
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Disclosure Questions for Utilities		
Does the proposed field work cross or is within 30 meters of other pipelines and/or utilities?	P54	Yes/No

Re-Route

Table C.0.7 outlines the disclosure questions that will be populated for Re-Route applications.

Table C.0.7: Re-Route Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Replacements/Re-Routes		
Has the proposed replacement been designed to meet pressure limits of the system, including downstream components?	P31	Yes/No
Do any of the existing registry segments, associated with this application, cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, Converted from the Ministry's legacy database; and, (2) Has no system records regarding watercourses.	P70	No/Yes
Will any of the proposed replacement or reroute sections cross a permanent watercourse?	P76	No/Yes
Will any of the proposed replacement or reroute sections occur in an area where the Class Location is greater than 2?	P77	No/Yes
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90A	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Disclosure Questions for Utilities		
Does the proposed field work cross or is within 30 meters of other pipelines and/or utilities?	P54	Yes/No

Reactivation

Table C.0.8 outlines the disclosure questions that will be populated for Reactivation applications.

Table C.0.8: Reactivation Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90A	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Has the proposed segment(s) been designed to meet the pressure limits of the system, including downstream components?	P30	Yes/No
Do any of the existing registry segments, associated with this application, cross a large or small permanent watercourse as defined in PNG034: Saskatchewan Pipelines Code? This question is appearing because this segment was: (1) Retroactively licenced, or, Converted from the Ministry's legacy database; and, (2) Has no system records regarding watercourses.	P70	No/Yes
Disclosure Questions for Utilities		
Does the proposed field work cross or is within 30 meters of other pipelines and/or utilities?	P54	Yes/No

Segment Removal

Table C.0.9 outlines the disclosure questions that will be populated for Segment Removal applications.

Table C.0.9: Segment Removal Disclosure Questions

Description	Number	Response Available
Disclosure Questions for all Pipelines/Flowlines		
Has a professional engineer registered in Saskatchewan certified the engineering design used for this submission?	P90A	Yes/No/NA
Is there a plan in place to carry out the relevant field work in accordance with the latest version of CSA Z662, Oil and gas pipeline systems?	P91	Yes/No
Disclosure Questions for Utilities		
Does the proposed field work cross or is within 30 meters of other pipelines and/or utilities?	P54	Yes/No

Appendix D: Field Office Area Map