

Frequently Asked Questions

Pipeline Application Audit Submissions (Technical)

March 2016

This document clarifies and supports the submission of audit documentation for the technical requirements of *Directive 056: Energy Development Applications and Schedules (Directive 056)* pipeline applications. The questions below identify areas of concern resulting from common omissions or errors within audit submissions. Clarification has been provided to reduce the number of supplemental information requests in the audit process.

This document supplements the audit requirements as outlined in *Directive 056*, Section 6.11.

Q1. Q1. Where in *Directive 056* do I find a list of the documentation required for a technical pipeline audit?

A1. *Directive 056*, section 6.11, outlines the required audit documentation to be submitted for a technical audit of a pipeline application. The table below outlines the appropriate sections in *Directive 056*.

Schedule 3.2	Pipeline requirements
Step 2: Question 1 – H ₂ S content requirements	6.11.2.1
Step 2: Question 3 – CSA Z662	6.11.2.3
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Step 3: Questions 1, 2, and 3 – Release volume and level designations	6.11.3.1
Step 3: Question 4 – Injection	6.11.3.2
Step 4: Question 1 – Substance change	6.11.4.1
Step 4: Question 1 – MOP change / H ₂ S change	6.11.4.2
Step 4: Question 2 – Liner Installation	6.11.4.3
Step 5: Questions 1a and 1b – Pipeline resumption	6.11.5.1
Step 5: Question 2 – Pipeline discontinuation	6.11.5.2
Step 5: Question 3 – Pipeline abandonment	6.11.5.3
Step 6: Question 4 – Transportation utility corridor	6.11.6.2

Q2. What documentation needs to be submitted in response to a technical pipeline audit request?

A2. When compiling documentation for submission in response to a technical well audit request, the AER recommends the following for the steps noted above.

Schedule 3.2

Step 2: Question 1 – H₂S Content Requirement

Audit Documentation Required

- A representative gas analysis

Provide
<ul style="list-style-type: none"> • Analyses that can be linked to the application by location, and H₂S • Analyses that include the sample point, well/facility, pool, source, and date of sample

Step 2: Question 3 – CSA Z662

Audit Documentation Required

- A description of the methodology used to ensure CSA standards are met
- A list of the licensed substance and maximum operating pressure (MOP) of the pipelines into which the proposed pipeline is tied
- A description of pressure control and overpressure protection
- Mill certificates or other documentation to confirm the pipe is suitable for the product being transported
- Specifications for the valves, flanges, and fittings
- Documentation of a quality assurance program to ensure material is suitable for sour service
- A description or map showing valve locations and spacing

Provide	Do not provide
<ul style="list-style-type: none"> • Concise statements when dealing with any of the above requirements • The nominal pressure class (PN class) for valves, flanges, and fittings • Simple representative maps showing valve spacing, including the distance between emergency shut down 	<ul style="list-style-type: none"> • Canadian Standards Association (CSA) plan documents—a short statement committing to follow CSA is acceptable • American Society of Mechanical Engineers (ASME) ratings for valves flanges and fittings • Specifications that do not relate to the

Provide	Do not provide
<p>devices (ESDs)</p> <ul style="list-style-type: none"> • Only include mill certifications specific to the application • Clear description of overpressure and pressure controls that meet the requirements found in the <i>Reference Tool for Interpreting Pipeline Pressure Control and Overpressure Protection Requirements</i> on the AER website • The depth of cover and class location for high vapour pressure (HVP) applications • The tie-in licence numbers 	<p>application; please highlight relevant specifications</p> <ul style="list-style-type: none"> • The entire mill certification. Auditors are looking for sour service certification which is normally found on the first page • Any documents or specifications that do not directly relate to the application

Step 2: Question 4 – Corrosion

Audit Documentation Required

- If the licensee has indicated appropriate corrosion mitigation is in place, the licensee must be able to provide the evaluation performed to assess the corrosivity of the pipeline and the need for corrosion mitigation.
- If a corrosion mitigation plan has been deemed necessary, the licensee must provide the following:
 - A detailed summary of the corrosion mitigation plan that outlines the scheduled actions that will be conducted
 - A detailed summary of the monitoring plan that outlines the scheduled actions that will be conducted
 - A description of the scheduled actions that will be conducted to review the monitoring results and assess mitigation plan performance

Provide	Do Not Provide
<ul style="list-style-type: none"> • Concise statements when dealing with any of the above requirements • Statements about what if any external coating is being used • Confirmation that cathodic protection will be used (if metallic pipe or risers are in use) • Confirmation if coupons or other measures are being used 	<p>The entire pipeline integrity management plan</p>

Step 2: Question 5 – Leak Detection

Audit Documentation Required

- A detailed description of the procedures for leak detection including frequency of right-of-way inspections, material balance parameters, and confirmation that employees have or will receive training. (NOTE: This documentation only applies to pipelines that fall under annex E requirements)

Provide	Do not provide
Concise statement confirming how <i>CSA Z662-15</i> – clause 10.3.6 and annex E.3 and E4 and <i>Pipeline Regulations</i> sections 43 and 44 are being met	The entire pipeline integrity manual or plans

Step 2: Question 6 – Steam Pipelines

Audit Documentation Required

- The licensee must submit documentation verifying that the pipeline design was registered with the Alberta Boilers Safety Association (ABSA).

Provide	Do not provide
The ABSA registration number	The entire ABSA application

Step 2: Question 8 – Pipeline Installations

Audit Documentation Required

- All pipeline installations
 - A wellhead or inlet gas analysis that is representative of the inlet stream
 - A process flow diagram that meets the requirements of *Directive 056*, section 6.9.26.1
 - A site-specific plot plan showing the placement of and distances between equipment
 - A list of each type of meter proposed for each measurement point and their locations
- Compressor/pump stations
 - Everything listed under “All Pipeline Installations”
 - Manufacturer's specifications for the proposed unit that confirms emission ratings, unit size, and driver type
 - A noise impact assessment prepared in accordance with *Directive 038*
 - A breakdown and total of all sources of NO_x emissions in kg/h and CO₂ emissions in t/d

- Documentation to demonstrate the exhaust stack height requirements of ID 96-02 (previously IL 88-05) are met if total NOx emissions are less than 16 kilograms per hour (kg/h). Check *Directive 060* for these requirements.
- Tank farms / oil loading and unloading terminals
 - A list of materials that will be stored and a description of the storage methods, including details of
 - everything listed under “All Pipeline Installations,”
 - design and construction,
 - leak detection,
 - secondary containment,
 - weather protection, and
 - primary containment device and size.
- Line Heaters
 - Documentation verifying the line heater is designed to *Alberta Boilers Safety Codes Act (B31.3)* requirements

Step 3: Questions 1, 2, and 3 – Release Volume and Level Designations

Audit Documentation Required

- For natural gas and oil effluent pipelines greater than 10 mol/kmol H₂S, the licensee must submit
 - the input parameters used to calculate the potential H₂S release volume,
 - representative tie-in schematics of ESD valves, and
 - a system map showing ESD and check-valve locations.

Provide	Do not provide
<ul style="list-style-type: none"> • Accurate maps to determine ESD spacing for release rate calculations • Calculations that used the licenced H₂S values 	Calculations that used the expected H ₂ S values

Step 3: Question 4 – Injection

Audit Documentation Required

- If injecting into a producing reservoir, the licensee must give an explanation as to the impact the scheme operation will have on the pipeline material and operating parameters.

Step 4: Question 1 – Substance Change

Audit Documentation Required

- The licensee must submit documentation that
 - confirms the pipe, valves, flanges, and fittings are suitable for the new substance;
 - confirms that the depth of cover is sufficient (HVP pipelines only); and
 - demonstrates the integrity and suitability of the pipeline for the proposed change and the proposed procedure for implementing the change.

Provide
<ul style="list-style-type: none"> • Concise statements when dealing with any of the above requirements • Mill certifications, if required • Only include mill certifications specific to the application

Step 4: Question 1- MOP Change / H₂S Change

Audit Documentation Required

- Documentation verifying that the pipe, valves, flanges, and fittings are suitable for the new MOP (MOP increase)
- A detailed evaluation of the integrity and suitability of the pipeline for the proposed change, and the proposed procedure for implementing the change
- Pressure test charts (MOP increase)

Provide	Do not provide
<ul style="list-style-type: none"> • Legible pressure-test charts • PN ratings for the valves, flanges, and fittings • A summary of the engineering assessment, or the engineering evaluation of the integrity and suitability of the pipeline • Only specifications that pertain to the application 	<ul style="list-style-type: none"> • Specifications for pipelines not in the application • Full engineering assessments • ASME ratings for the valves, flanges, and fittings

Step 4: Question 2 – Liner Installation

Audit Documentation Required

- Liner specifications and pressure-test charts if available

Provide	Do not provide
Legible pressure tests	Specifications for pipelines not in the application

Step 5: Questions 1a and 1b – Pipeline Resumption

Audit Documentation Required

- Pressure-test charts
- Documentation to verify depth of cover (HVP only)
- Provide a record of cathodic protection (cathodic protection survey).
- Provide a record of the medium left in pipelines.
- Provide the pipeline external coating integrity results.
- Ensure sour-service requirements are met (e.g., mill certificates).
- Sour-service requirements on mill certificates (should be 359 11S YJ 2K coating)
- Submit a detailed evaluation of the integrity and suitability of the pipeline for the proposed change and the proposed procedure for implementing the change (e.g., does the engineering assessment meet current code [CSA clause 3.3] and regulation requirements?).

Provide	Do Not Provide
<ul style="list-style-type: none"> • Legible pressure-test charts • Annual cathodic-protection surveys • The field discontinuation report • An explanation for any missing items • Only include mill certifications specific to the application • Pictures (if provided) must be legible • A summary of the engineering assessment, or the engineering evaluation of the integrity and suitability of the pipeline • The last date the line saw active flowing service and the date of field discontinuation 	<p>Engineering assessments</p>

Step 5: Question 2 – Pipeline Discontinuation

Audit Documentation Required

- A description of the method used to discontinue the pipelines
- A record of the medium left in the pipelines
- Documentation to confirm that cathodic protection (CP) will be maintained

Provide

- The discontinuation report
- The last date the line saw active flowing service and the date of field discontinuation
- A statement confirming that CP will be maintained
- Pictures (if provided) must be legible
- An explanation of any missing items and a description of how the requirements are still being met

Step 5: Question 3 – Pipeline Abandonment

Audit Documentation Required

- A description of the method used to abandon the pipelines
- A record of the medium left in the pipelines

Step 6: Question 4 – Transportation Utility Corridor

Audit Documentation Required

- Documentation confirming the pipeline/installation has received ministerial consent from Alberta Infrastructure

Provide

Consent from Alberta Infrastructure including the signed and stamped right-of-way plans