



# DIRECTIVE 2011-01

January 17, 2011



## Integrity Management Programs Self Assessment Protocols and Regulatory Process

**To:** Industry Clients

**Effective Date:** Immediately

### **Background:**

In September 2009, the BC Oil and Gas Commission (Commission) informed industry clients of plans to implement a self assessment process for pipeline Integrity Management Programs (IMPs). Comments were sought and received on draft protocols for self assessment of IMPs.

In addition to the comments received, the Commission undertook a series of four trial assessments with permit holders to further identify improvements and refinements to the self assessment protocols and the planned implementation of the Commission's IMP assessment and monitoring program.

The results of these efforts are reflected in the Commission's Self Assessment Protocol – Integrity Management Programs for Pipeline Systems (Self Assessment Protocol) and the Commission Assessment Report for the Evaluation of Integrity Management Programs for Pipeline Systems (Assessment Tool).

### **Requirement:**

Beginning in January 2011, the Commission will contact selected pipeline permit holders and request that they complete and file a self assessment of their IMP using the Self Assessment Protocol. The Commission will review all submissions and assess the conformance of each submission using the Assessment Tool. Permit holders are invited to review and complete their own assessment using the Assessment Tool, but this is not required for submission.

Submissions will be reviewed by the Commission and permit holders will receive a draft of the Commission's Assessment Report a minimum of four weeks in advance of a meeting with the permit holder to review the assessment findings (Assessment Review meeting).

During the Assessment Review meeting, the Commission will explain the rationale supporting the draft Assessment Report, allowing the permit holder to provide additional information should they wish to do so. If required, a second meeting will be established to allow the permit holder additional time to prepare a submission to the Commission to provide additional information or evidence supporting the permit holder's position.

**For oil and gas incidents and emergencies, please contact the Commission at:  
1-800-663-3456 (24 hours).**

The permit holder may be subject to further supplemental follow-up activities and/or additional compliance assurance activities before the Assessment Report is finalized.

The aggregated findings of all Assessment Reports will be presented and published in the Pipeline Performance Report for each calendar year.

A completed sample for Sections 3 and 4 of the Self Assessment Protocol and the comments received regarding the Self Assessment Protocol as well as the IMP assessment process are attached in the Frequently Asked Questions at the end of this directive. View the Self Assessment Protocol [here](#).

**Should you have any questions regarding this directive, please contact:**

Ken Paulson

Chief Engineer and Deputy Commissioner

Engineering Division

BC Oil and Gas Commission

[Ken.Paulson@gov.bc.ca](mailto:Ken.Paulson@gov.bc.ca)

250-419-4404



## Integrity Management Programs (IMP) Self Assessment Protocols and Regulatory Process

**Question 1:** *The document mirrors CSA Z662 Annex N but also asks for narrative statements to demonstrate conformance. We have a Pipeline Integrity Management Program (IMP) manual that complies with CSA Z662 Annex N and outlines our programs in detail. Since the narrative statement cannot fully capture the details contained in the full IMP manual, what benefit does the narrative statement provide?*

**Answer 1:** The Commission is using the Self Assessment process as a screening tool to prioritize additional activities, such as follow up meetings, integrity focused inspections and audits. At this time, the Commission does not require the submission of complete IMPs. The narrative statements summarize how the permit holder's IMP meets the requirements and expectations outlined in the Protocol.

A sample of a completed Self Assessment Protocol for **Section 3.1 Format** and **Section 4 Program Scope** is provided on the following page. (Please note the information in this sample assessment protocol is for reference purposes only. Permit holders should not limit their IMP to the elements listed below. The structure and content of an IMP will vary for different permit holders.)

### 3. Program Requirements

#### 3.1 Format

IMPs must be documented in a format suitable for submission and review by the Commission upon request and during follow-up and verification activities. IMPs are preferred in electronic format; however, hard copies will also be accepted. **Note that the submission of IMPs to the Commission is not required as part of the self-assessment program unless specifically requested by the Commission.**

A specific program (for example, Risk Management Program, Management of Change Program) may be developed by the permit holder to address a particular element within the IMP. The location of the documentation for these programs shall be referenced within the IMP. Repetition of information is not required in the IMP. Those programs and records shall, however, be reviewed and updated along with the IMP.

#### Protocol Requirements

- Permit holders must have a documented program for integrity management.

#### Regulatory References

- *CSA Z662 – Clause 10.14*
- *CSA Z662 – Annex N – Clause N.3*
- *Pipeline and Liquified Natural Gas Facility Regulation*

#### Permit Holder Documents and References

The permit holder is required to complete this section listing in point form all internal permit holder documents and referenced or incorporated external documents which demonstrate the permit holder's program meets the Protocol Requirements and/or Protocols Expectations.

[ABC Energy Inc. Pipeline Integrity Manual](#)  
[ABC Energy Inc. Pipeline Operations and Maintenance Manual](#)  
[ABC Energy Inc. Change of Management Program](#)  
[ABC Energy Inc. Pipeline database](#)

## Permit Holder Statement

The permit holder is required to provide:

- A narrative description of how their program meets the Protocol Requirements and/or Protocol Expectations.
- A summary of any deficiencies.
- The timeframe for corrective actions where appropriate.

A narrative description of how their program meets the Protocol Requirements:

The Integrity Manual of ABC Energy Inc. covers the integrity management of all the pipelines and pipeline facilities owned and/or operated by ABC Energy Inc. It is revised annually. The Manual is documented electronically in a common drive and hard copies of the Manual are also stored in the ABC Energy Inc. head office and all the field offices in BC. The Integrity Manual is structured based on CSA Z662 Annex N. All locations of the data, documents and programs are clearly referenced in the Integrity Manual if the information does not reside in the Manual.

Summary of any deficiencies:

There is no deficiency identified in this section.

Timeframe for corrective actions where appropriate:

Not applicable.

## 4. Program Scope

IMPs must encompass the entire pipeline system under the permit holder's authority which is regulated by the Commission. Program requirements may vary between individual pipeline segments and facilities but must be documented within the IMP. A description of the entire pipeline system and the scope of the integrity management program must be included within the program documentation.

### Protocol requirements:

- The IMP documentation must include a description of the entire pipeline system.
- The pipeline system description shall consider inclusion of, but be not limited to:
  - (a) A general description of the pipeline including its purpose, capacity and location.
  - (b) Dimensions and material characteristics of the pipeline, the types of coating and the location and function of any ancillary equipment.
  - (c) An estimate of the condition of the pipeline, its coatings and any ancillary equipment.
  - (d) The operating conditions of the pipeline, including service fluids, operating pressure and temperature range.
  - (e) Physical surrounding along the pipeline route.

### Protocol expectations:

- Where a permit holder has contracted operation of a pipeline system to a third party, the permit holder should reference the third party IMP where applicable. The permit holder remains responsible for the integrity management of the entire pipeline system.

### Regulatory References:

*CSA Z662 – Clause 10.14*

*CSA Z662 – Annex N – Clause N.4*

*Pipeline and Liquefied Natural Gas Facility Regulation*

### Permit Holder Documents and References:

The permit holder is required to complete this section listing in point form all internal permit holder documents and referenced or incorporated external documents which demonstrate the permit holder's program meets the Protocol Requirements and/or Protocol Expectations.

[ABC Energy Inc. Pipeline Integrity Manual Section 1](#)  
[ABC Energy Inc. Pipeline database](#)  
[XYZ Corp. Pipeline Integrity Management Program](#)

## Permit Holder Statement

The permit holder is required to provide:

- A narrative description of how their program meets the Protocol Requirements and/or Protocol Expectations.
- A summary of any deficiencies.
- The timeframe for corrective actions where appropriate.

### A narrative description of how their program meets the Protocol Requirements:

A single system map which encompasses the entire pipeline system is stored in ABC Energy Inc.'s head office and all the field offices. The pipeline system description is summarized in the table below:

<b>Line Type</b>	Flow, injection and transmission
<b>Total length of pipelines (km)</b>	Approximately 2,350
<b>Field area pipelines situated in</b>	Buick Creek, Noel, Kelowna
<b>Products flowing in the pipeline</b>	Natural gas, crude oil and produced water
<b>Pipeline dimensions</b>	Ranged from 4" to 12"
<b>Pipeline materials</b>	Steel, fiberglass, PE, composite
<b>External coating</b>	Mainly fusion bonded epoxy and extruded polyethylene (YJ)
<b>Internal coating</b>	Polymer liners, pigging and other anomalies detection techniques are used for most bare pipelines

The condition of the pipeline system is monitored in the ABC Energy Inc. pipeline database. Any pipeline facilities (for example, pig barrels) along the pipeline route and the physical boundaries of the risk analysis are also tracked in the database. Maintenance and repair activities are scheduled based on the change in operating conditions. Please refer to the Permit Holder Statement in Section 8 of this self assessment for details about the management of change in operating conditions.

### Summary of any deficiencies:

The current edition of the Pipeline Integrity Manual does not have a description for the entire pipeline system.

### Timeframe for corrective actions where appropriate:

The description similar to the above one will be added in the 2011 edition of the IMP.

Q2: *The assessment process together with the rigid protocol seems to reflect the Commission's vision of an IMP rather than allowing a permit holder to create an IMP on its own vision, and ensuring that it meets CSA Z662. This could open the door to a Commission auditor defaulting to what they interpret as "correct" versus understanding how a company is meeting the intent of CSA Z662.*

A2: The Protocol incorporates the contents of CSA Z662-07 Oil and Gas Pipeline Systems. The Requirements and Expectations within the Protocol have been developed based on feedback from stakeholders, the results of the trial assessments and dialog with industry working groups.

The Protocol is not intended to form a template for the development of a Permit Holder's IMP. It is a self assessment tool designed to provide a consistent framework by which permit holders may evaluate their IMPs for conformance with regulatory requirements.

The Protocols are intended to provide a basis for discussion with Permit Holders on how conformance is achieved. The Commission recognizes that different permit holders have different IMP structures and there is no requirement for a common framework.

Q3: *In **Section 3.2 – Information Management** it is written: "All information required for the IMP must be summarized in written form within the program documentation." Is a hardcopy required for all IMPs?*

A3. IMPs must be documented as required under Annex N. The format may be either written hard copy or electronic.

Q4: *Regarding **Section 4 – Program Scope**, for pipelines which are operated by someone other than the permit holder, whose IMPs apply?*

A4: The Commission has regulatory authority over the Permit Holder. As such, it is the Permit Holder's IMP which will be assessed for conformance. The Permit Holder's IMP may reference or adopt the practices of a third party where appropriate, but remains accountable for the conformance of the IMP.

Q5: *In **Section 6 – Records**, how does the permit holder meet the record requirements when some of the information on older pipelines, or pipelines that were purchased from others, is simply not available?*

A5: Permit Holders are responsible for their pipeline systems. Many of the required records for IMPs are required under the design, materials, construction and operations clauses of CSA Z662. The Commission is aware that in some cases, the required records may be incomplete. In these situations, Permit Holders should identify where records may not conform to the requirements of CSA Z662. In addition to acknowledgement of any records



deficiencies, Permit Holders should identify how they operate their pipeline systems in the absence of complete records, as well as all assumptions and systems in place to deal with the absence of complete records.

*Q6: In **Section 6 – Records** it is written: “The following records (as a minimum) must be considered within the IMP.” Many of these items are not specifically “included within the IMP” and are part of the construction files or part of our Pipeline Operating & Maintenance manuals. Most of these items can be accessed and reviewed in other areas of the company and are collectively part of the IMP, but do not reside with the IMP document itself. Please clarify what “considered within the IMP” practically means.*

A6: Permit holders are not required to rewrite their IMPs to include information found in other manuals. Referencing the location of records (for example, Management of Change manual) will suffice as a record included within the IMP.

*Q7: In regards to **Section 8 – Change Management**, some companies have a change management process which includes all changes for not only pipelines, but wellsites and facilities. It would not be practical to establish a separate process for pipeline IMP.*

A7: Permit holders are not required to rewrite their IMPs to include information found in other manuals. Referencing the location of records (for example, Management of Change manual) will suffice as a record included within the IMP.