



National Energy Board Pipeline Patrol Audit Protocol

Appendix I –Evaluation of Sub-element 4.1

4.0 CHECKING AND CORRECTIVE ACTION

4.1 Inspection, Measurement and Monitoring

The company shall have an established, implemented and effective process for inspecting and monitoring the company's activities and facilities to evaluate the adequacy and effectiveness of the protection programs and for taking corrective and preventive actions if deficiencies are identified. The evaluation shall include compliance with legal requirements.

The company shall have an established, implemented and effective process for evaluating the adequacy and effectiveness of the company's management system, and for monitoring, measuring and documenting the company's performance in meeting its obligations to perform its activities in a manner that ensures the safety and security of the public, company employees and the pipeline, and protection of property and the environment.

The company shall have an established, maintained and effective data management system for monitoring and analyzing the trends in hazards, incidents and near-misses. The company shall have documentation and records resulting from the inspection and monitoring activities for its programs.

The company management system shall ensure coordination between its protection programs, and the company should integrate the results of its inspection and monitoring activities with other data in its hazard identification and analysis, risk assessments, performance measures and annual management reviews, to ensure continual improvement in meeting the company's obligations for safety, security and protection of the environment.

Regulatory Requirements

National Energy Board Onshore Pipeline Regulations (OPR) s. 6.5(1)(u): A company shall, as part of its management system and the programs referred to in section 55, establish and implement a process for inspecting and monitoring the company's activities and facilities to evaluate the adequacy and effectiveness of the programs referred to in section 55 and for taking corrective and preventive actions if deficiencies are identified.

OPR s. 39: A company shall develop a surveillance and monitoring program for the protection of the pipeline, the public and the environment.

National Energy Board Pipeline Damage Prevention Regulations – Obligations of Pipeline Companies (DPR-O) s.16: The damage prevention program that a pipeline company is required to develop, implement and maintain under section 47.2 of the *National Energy Board Onshore Pipeline Regulations* must include ...

- (b) ongoing monitoring of any changes in the use of the land on which a pipeline is located and the land that is adjacent to that land;
- (c) ongoing monitoring of any change in the landowner of the land on which a pipeline is located.

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1.0 Surveillance and Monitoring

Question for discussion

1. Describe the company's surveillance and monitoring program and activities it conducts in accordance with the above requirements.

Documentation and records to provide:

- Documents and records related to the company's overarching surveillance and monitoring program.
- Documents relating to monitoring land and conditions on the right-of-way (ROW).
- Examples of records demonstrating the implementation of the applicable processes and procedures.

1.1 Right of Way Patrols

Regulatory Requirements

DPR-O s. 16(b): The damage prevention program that a pipeline company is required to develop, implement and maintain under section 47.2 of the *National Energy Board Onshore Pipeline Regulations* must include...ongoing monitoring of any changes in the use of the land on which a pipeline is located and the land that is adjacent to that land.

CSA Z662-15, Clause 10.6.1.1, Pipeline patrolling:

Operating companies shall periodically patrol their pipelines in order to observe conditions and activities on and adjacent to their rights-of-way that can affect the safety and operation of the pipelines. Particular attention shall be given to the following:

- a) construction activity;
- b) dredging operations;
- c) erosion;
- d) ice effects;
- e) scour;
- f) seismic activity;
- g) soil slides;
- h) subsidence;
- i) loss of cover;
- j) evidence of leaks; and
- k) unauthorized activities.

CSA Z662-15, Clause 10.6.1.2:

The frequency of pipeline patrolling shall be determined by considering such factors as

- a) operating pressure;
- b) pipeline size;
- c) population density;
- d) service fluid;
- e) terrain;
- f) weather; and
- g) agricultural and other land use.



Questions for discussion

1. Describe the company's ROW patrol activities including the various types or purposes of patrols conducted.
2. What is the patrol schedule for each region/ area/ section?
3. How does your company monitor any changes in the use of the land and/or landowners on which a pipeline is located, and the land that is adjacent to it?
4. Describe how the patrol program (including the ROW patrol program) is developed and implemented.
5. How is frequency of patrol determined? What are the company's criteria for determining the frequency of patrols?
6. Describe how the patrol program has been re-evaluated to determine if any changes are required.

Documents Requested:

- Documented processes and procedures for conducting and managing ROW patrols.
- Process for determining patrol frequency including documented criteria.
- Records demonstrating the implementation of the applicable processes and procedures.
- Documented processes and procedures for the planning and execution of ROW patrol activities including abnormal conditions (such as emergency events).

Records Requested:

- Records demonstrating the implementation of the applicable processes and procedures.
- ROW patrol reports (all patrols for the last 2 years).
- All unauthorized activity reports (noted by patrols).

2.0 Reporting

Regulatory Requirements

OPR s. 52 (1): A company shall immediately notify the Board of any incident relating to the construction, operation or abandonment of its pipeline and shall submit a preliminary and detailed incident report to the Board as soon as practicable.

DPR-O s. 7: Even if the condition set out in paragraph 13(1)(a) of the *National Energy Board Pipeline Damage Prevention Regulations – Authorizations* is met, when the operation of vehicles or mobile equipment across a pipeline at specific locations for the purposes of performing an agricultural activity could impair the pipeline's safety or security, the pipeline company must identify those locations and notify the following persons in writing of those locations:

- (a) landowners of the specific locations in question; and
- (b) persons that are engaged in agricultural activities, rent or lease the land or work as service providers or employees at the specific locations in question.

DPR-O s. 11(1): The pipeline company must immediately report to the Board



- (a) every contravention of the *National Energy Board Pipeline Damage Prevention Regulations – Authorizations*;
- (b) all damage to its pipe caused or identified during the construction of a facility across, on, along or under a pipeline, the operation, maintenance or removal of a facility, an activity that caused a ground disturbance within the prescribed area or the operation of vehicles or mobile equipment across the pipeline; and
- (c) any activity related to the construction of a facility across, on, along or under a pipeline, an activity that caused a ground disturbance within the prescribed area or the operation of vehicles or mobile equipment across a pipeline that the pipeline company considers could impair the safety or security of the pipe.

Questions for Discussion

1. Describe the processes/procedures related to the above requirements.
2. Describe the methods used [ROW Patrol] to identify specific locations for the purposes of performing an agricultural activity that could impair the pipeline's safety or security.
3. What is your procedure for reports on issues on the ROW received from external parties (landowners/public).
4. What, if any, trending is done that includes ROW patrols?

Documents and records requested:

- Documented processes and procedures for follow up on issues reported from ROW patrols.
- All investigation reports related to conditions on the ROW, near-misses and incidents (ROW patrol) for 2015 and 2016.