Suite 210, 517 Tenth Avenue SW Calgary, AB T2R 0A8

Final Audit Report

Maritimes and Northeast Pipeline Management Ltd.
Audit Topic: Damage Prevention
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Executive Summary

The Canada Energy Regulator (**CER**) expects pipelines and associated facilities within the Government of Canada's jurisdiction to be constructed, operated, and abandoned in a safe and secure manner that protects people, property, and the environment. To this end, the CER conducts a variety of compliance oversight activities, such as audits.

Section 103 of the *Canadian Energy Regulator Act* (S.C. 2019, c.28, s.10) (**CER Act**) authorizes inspection officers to conduct audits of regulated companies. The purpose of these audits is to assess compliance with the CER Act and its associated Regulations.

The purpose of operational audits is to ensure that regulated companies have established and implemented both a management system and its associated programs, as specified in the *Canadian Energy Regulator Onshore Pipeline Regulations* (SOR/99-294) (**OPR**).

The CER conducted an audit of Maritimes and Northeast Pipeline Management Ltd. (**M&NP**) between 15 September 2022 and 22 December 2022. The topic of the audit was damage prevention.

The objectives of this audit were to assess whether M&NP's damage prevention program:

- is effectively integrated within the company's management system as per section 6 of the OPR; and,
- is able to anticipate, prevent, manage, and mitigate damage to its pipeline as per section 47.2 of the OPR and section 16 of the Canadian Energy Regulator Pipeline Damage Prevention Regulations Obligations of Pipeline Companies (SOR/2016-133) (DPR-O).

Of ten audit protocol (AP) items that were assessed, nine were deemed no issues identified, while one was found to be non-compliant.

The area where the company's damage prevention program was found to be non-compliant is in the requirement to manage requests for consent. Specifically, section 2.1 of M&NP's guideline document for construction near company pipelines allows for passenger-sized vehicles to cross the pipeline without requiring consent, which does not meet the requirements of paragraph 16(f) of the DPR-O. In addition, the document was found to be out of date because it contained references to National Energy Board (**NEB**) regulations from 2018, it contained a broken hyperlink, and referenced a 2018 NEB document that has subsequently been replaced. This non-compliance is discussed in the assessment of AP-07, in the report below. And, although outside the scope of the audit, M&NP's guideline document does not address the requirements of subsection 338(1) of the CER Act.

Detailed assessments explaining the CER's rationale for audit findings can be found in Appendix 1. Note that all findings are specific to the information assessed at the time of the audit as related to the audit scope.

Within 30 calendar days of receiving the Final Audit Report, the auditee shall file with the CER a Corrective and Preventive Action (CAPA) Plan that outlines how the non-compliant finding will be resolved. The CER will monitor and assess the implementation of this CAPA Plan to confirm that it is completed in a timely manner.

Although a non-compliant finding exists, the CER believes that in this case, M&NP can still construct, operate, and abandon pipelines in a manner that will preserve the safety of persons, the environment, and property.

The Final Audit Report will be made public on the CER website.



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1.0 Background

1.1 Introduction

The CER expects pipelines and associated facilities within the Government of Canada's jurisdiction to be constructed, operated, and abandoned in a safe and secure manner that protects people, property, and the environment.

Section 103 of the CER Act authorizes Inspection Officers to conduct audits of regulated companies. The purpose of these audits is to assess compliance with the CER Act and its associated Regulations.

The purpose of operational audits is to ensure that regulated companies have established and implemented both a management system and its associated programs, as specified in the OPR.

The CER conducted an audit of M&NP between 15 September 2022 and 22 December 2022. The topic of the audit was damage prevention.

1.2 Description of Audit Topic

This audit focuses on the auditee's damage prevention program, for several reasons:

- damage prevention regulations came into force in 2016, as a tool to support the safe execution of activities occurring near a pipeline;
- damaged pipelines pose a significant hazard to the safety of people, property, and the environment; and
- several incidents of third-party damage to pipelines have occurred across CER-regulated companies over the last few years which have resulted in situations with the potential for severe consequences.

Section 47.2 of the OPR requires companies to develop, implement, and maintain a damage prevention programs that anticipate, prevent, manage, and mitigate damage to their pipelines. Thus, this audit assesses activities relating to:

- depth of cover:
- clearly identifying pipeline locations;
- company liaison/ education activities aimed at potential groups that conduct activities near pipelines including contractors, municipalities, and landowners;
- · monitoring and surveillance; and
- · response to notifications.

1.3 Company Overview

M&NP was commissioned in December 1999 and currently delivers natural gas from the United States to customers in Nova Scotia and New Brunswick. CER-regulated assets include approximately 880 km of operating pipeline and various auxiliary infrastructure.

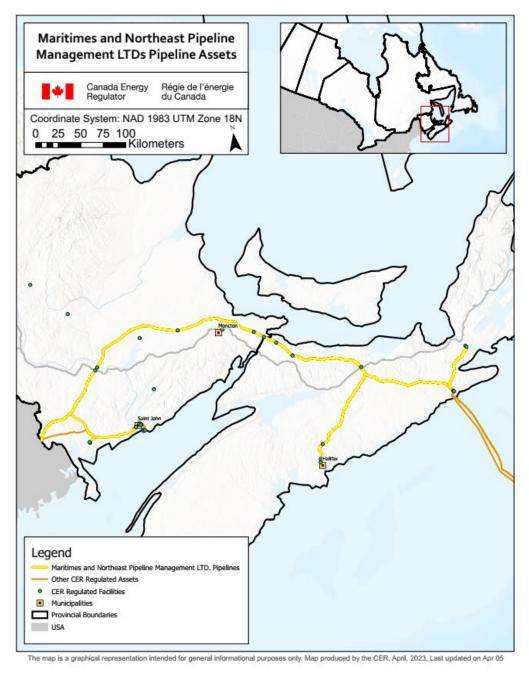
Prior to 2018, M&NP transported natural gas produced in Canada from the Sable Offshore Energy Project and the Deep Panuke offshore Nova Scotia platforms to markets in New Brunswick, Nova Scotia, and the U.S. Northeast. Since 2007, M&NP has also been transporting supply from the McCully natural gas field in New Brunswick.

A key point on M&NP is an import/export interconnect with the US portion of M&NP at the Canada-U.S. border near St. Stephen, New Brunswick. At the Canada-U.S. border, the M&NP pipeline is



also connected to the Emera Brunswick pipeline, which transports re-gasified liquid natural gas from Canaport.

The map below depicts M&NP's CER-regulated assets in relation to other CER-regulated assets.



You can see all CER-regulated pipelines on the CER's Interactive Pipeline Map.



2.0 Objectives and Scope

The objectives of this audit are to assess whether M&NP's damage prevention program:

- is effectively integrated within the company's management system as per section 6 of the OPR; and
- is able to anticipate, prevent, manage, and mitigate damage to its pipeline as per section 47.2 of the OPR and section 16 of the Canadian Energy Regulator Pipeline Damage Prevention Regulations Obligations of Pipeline Companies (SOR/2016-133) (DPR-O).

The table below outlines the scope selected for this audit.

Audit Scope	Details
Audit Topic	Damage Prevention
Lifecycle Phases	☑ Construction☑ Operations☑ Abandonment
OPR section 55 Programs	 □ Emergency Management □ Integrity Management □ Safety Management □ Security Management □ Environmental Protection ☑ Damage Prevention
Time Frame	Not Applicable

3.0 Methodology

The CER Auditors conducted a sampling of M&NP's management system processes, procedures, work instructions, and training documents related to the topics being assessed in the audit. However, the auditors did not review and assess all management system documentation, nor did they review all damage prevention documentation. The auditors assessed compliance through document reviews, record sampling and interviews.

As part of the audit, the CER Auditors reviewed 174 documents and records provided by M&NP and conducted ten interviews with various M&NP staff. The list of documents reviewed, records sampled, and interviews conducted are retained on file with the CER.

An audit notification letter was sent to M&NP on 15 September 2022 advising the auditee of the CER's plans to conduct an audit of its damage prevention. The Lead Auditor provided the audit protocol and initial information request to the company on 19 September 2022 and followed up on 29 September 2022 with an opening meeting with M&NP staff to discuss the plans and schedule for the audit. Document review began on 17 November 2022 and interviews were conducted between 30 November 2022 and 8 December 2022.

Although the objectives of the audit were to evaluate if M&NP's damage prevention program is effectively integrated within its management system, meets the requirements of section 47.2 of the OPR and section 16 of the DPR-O, the CER auditors did not evaluate the company's entire management system or its entire damage prevention program. Only certain aspects of its management system and damage prevention program were assessed. For example, as can be seen



in Table 1 and Appendix 1, only three aspects of section 16 of the DPR-O were assessed, which included:

- Paragraph 16(b) Monitoring for change in land use
- Paragraph 16(c) Monitoring for change in land owner
- Paragraph 16(f) Managing requests for consent

For the specific legal requirements of paragraphs 16(b), 16(c), and 16(f), please refer to the DPR-O regulations.

In accordance with the established CER audit process, the Lead Auditor shared a pre-closeout summary of the audit results on 22 December 2022. At that time, M&NP was advised that there was one potential non-compliant finding and was given 13 calendar days to provide any additional documents or records to help resolve the identified non-compliance. Normally, after a pre-closeout summary, the CER gives an auditee seven calendar days to provide any additional information to resolve any potential non-compliances, but due to the holiday season, additional time was allocated. After the pre-closeout meeting, M&NP advised the CER that it had no additional information to provide to the audit team. As a result, the Lead Auditor advised the company that the pre-closeout meeting would serve as the final closeout meeting.

4.0 Summary of Findings

The Lead Auditor has assigned a finding to each audit protocol. A finding can be either:

- No issues identified No non-compliances were identified during the audit, based on the information provided by the auditee, and reviewed by the CER Auditors within the context of the audit scope; or
- Non-compliant The auditee has not demonstrated that it has met the legal requirements. A
 corrective and preventive action plan shall be developed and implemented to resolve the
 deficiency.

All findings are specific to the information assessed at the time of the audit, as related to the audit scope. The table below summarizes the finding results. See Appendix 1: Audit Assessment for more information.

Table 1: Summary of Findings

Audit Protocol (AP) Number	Regulation	Regulatory Reference	Topic	Finding Status	Finding Summary
AP-01	OPR & DPR-O	OPR s. 6; OPR s. 47.2; and DPR-O s. 16	Damage Prevention Program	No Issues Identified	Within the scope and objectives of this audit, the CER Auditors determined that M&NP's damage prevention program meets the requirements of sections 6 and 47.2 of the OPR. The CER Auditors also found that M&NP fulfilled the requirements of the three



Audit Protocol (AP) Number	Regulation	Regulatory Reference	Торіс	Finding Status	Finding Summary
					paragraphs of section 16 of the DPR-O regulations that were assessed during this audit, which were either clearly documented or referenced within the damage prevention program document. There was one issue of concern in fulfilling the requirements of paragraph 16(f) of the DPR-O, which is discussed in AP-07. The CER Auditors had no other issues of concern with the aspects of M&NP's damage prevention that were assessed through this audit.
AP-02	OPR	6.5(1)(c)	Establish and implement a process for identifying and analyzing hazards	No Issues Identified	Within the scope and objectives of this audit, the CER Auditors determined that M&NP has established and implemented the required hazard identification and risk analysis process and meets the expected outcomes.
AP-03	OPR	6.5(1)(f)	Establish and implement a process for developing and implementing controls	No Issues Identified	Within the scope and objectives of this audit, the CER Auditors determined that M&NP has a process for developing and implementing controls to prevent, manage and mitigate the identified hazards, potential hazards and risks and for communicating those controls to anyone who is exposed to the risks.
AP-04	OPR	6.5(1)(i)	Establish and implement a process for identifying and managing change	No Issues Identified	The CER Auditors determined that within the scope and objectives of this audit, M&NP has the necessary process to manage changes to its assets, documents,



Audit Protocol (AP) Number	Regulation	Regulatory Reference	Торіс	Finding Status	Finding Summary
					organization and regulatory requirements including changes to hazards and risks. The process has been established and implemented and is being maintained.
AP-05	DPR-O	16(b)	Damage Prevention Program – Minimum Content – Monitoring – Change in Land Use	No Issues Identified	Within the scope and objectives of this audit, the CER Auditors determined that M&NP fulfilled the requirements of paragraph 16(b) of the DPR-O regulations, which were either clearly documented or referenced within the damage prevention program document and included associated standards and procedures.
AP-06	DPR-O	16(c)	Damage Prevention Program – Minimum Content – Monitoring – Change in Land Owner	No Issues Identified	Within the scope and objectives of the audit, the CER Auditors determined that M&NP fulfilled the requirements of paragraph 16(c) of the DPR-O regulations, which were either clearly documented or referenced within the damage prevention program document and included associated standards and procedures.
AP-07	DPR-O	16(f)	Damage Prevention Program – Minimum Content – Managing Requests for Consent	Non- Compliant	The CER Auditors determined that Section 2.1 of M&NP's guideline document for construction near company pipelines does not meet the requirements of paragraph 16(f) of the DPR- O. It allows for a passenger- sized vehicle to cross the pipeline without requiring consent. In addition, the document was found to be out of date because it contained references to



Audit Protocol (AP) Number	Regulation	Regulatory Reference	Topic	Finding Status	Finding Summary
					National Energy Board (NEB) regulations from 2018, it contained a broken hyperlink and referenced a 2018 NEB document that has subsequently been replaced. And although outside the scope of the audit, the guideline does not address the requirements of subsection 338(1) of the CER Act.
AP-08	OPR	6.5(1)(m)	Establish and implement a process for internal and external communication of information	No Issues Identified	Within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process for both internal and external communications. The company demonstrated that it communicates internally and externally on matters related to safety, security and protection of the environment and the communications are adequate for the implementation of the damage prevention program.
AP-09	OPR	6.5(1)(r)	Establish and implement a process for internal reporting of hazards and for taking corrective actions	No Issues Identified	Within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process for the internal reporting of hazards, potential hazards, incidents, and near misses and for taking corrective and preventive actions.
AP-10	OPR	6.5(1)(u)	Establish and implement a process for inspecting and monitoring company activities for effectiveness	No Issues Identified	Within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process to inspect and monitor the company's activities and facilities to evaluate the adequacy and effectiveness of its damage prevention program and for taking



Audit Protocol (AP) Number	Regulation	Regulatory Reference	Topic	Finding Status	Finding Summary
					corrective and preventive actions if deficiencies are identified.

5.0 Discussion

The documents used to assess the ten audit protocol items were those of Enbridge Incorporated's management system.

Enbridge is the majority shareholder and principal operator of the M&NP pipeline and facilities. Enbridge operates in both Canada and the United States through associated entities, which are directly and indirectly owned by Enbridge. One business unit is referred to as Gas Transmission and Midstream (**GTM**).

Maritimes and Northeast Pipeline Management Ltd. General Partnership (**M&NP GP**) is one of the GTM entities. M&NP GP is a Canadian Corporation, is indirectly majority owned by Enbridge Inc., and is the certificate holder for the M&NP pipeline system in Canada. M&NP GP contracts with an Enbridge entity to operate M&NP under an operating and maintenance agreement. As a result, the GTM management system is used to provide oversight over M&NP's protection programs and processes.

The GTM management system is aligned with the Enbridge management system structure. According to Enbridge's management system structure, each business unit must have an integrated management system document that describes how the enterprise minimum requirements are being met. Each business unit must have 6 mandatory management programs, including a Damage Prevention Program.

To understand how the M&NP Damage Prevention Program is integrated into the GTM management system, refer to the assessment in AP-01.

6.0 Next Steps

M&NP is required to resolve its non-compliant finding through the implementation of a CAPA Plan using a template that will be provided by the CER. The next steps of the audit process are as follows:

- Within 30 calendar days of receiving the Final Audit Report, M&NP shall file with the CER, a CAPA Plan that outlines how the non-compliant finding will be resolved, this includes specific details of what will be done to resolve the non-compliant finding, what will be provided to the CER as evidence of this completion and the anticipated date of completion:
- The CER will monitor and assess the implementation of the CAPA Plan to confirm that it is completed:
 - o on a timely basis; and
 - o in a safe and secure manner that protects people, property, and the environment;
- Once implementation is completed, the CER will issue an audit close out letter.



7.0 Conclusion

In summary, the CER conducted an audit of M&NP with the scope specific to damage prevention. Out of a total of ten audit protocols, nine were classified as no issues identified and one was found to be non-compliant, resulting in an audit score of 90 percent.

The deficiency is related to the CER's requirement for pipeline companies to manage requests for consent. Specifically, section 2.1 of M&NP's guideline document for construction near company pipelines allows for a passenger-sized vehicle to cross the pipeline without requiring consent. This does not meet the requirements of paragraph 16(f) of the DPR-O. In addition, the document was found to be out of date because it contained references to NEB regulations from 2018, it contained a broken hyperlink and referenced a 2018 NEB document that has subsequently been replaced. And, although outside the scope of the audit, the guideline does not comply with the requirements of subsection 338(1) of the CER Act. This non-compliance is discussed in AP-07.

M&NP is expected to resolve the non-compliance through the implementation of a CAPA Plan. The CER will monitor and assess the implementation of this CAPA Plan and issue an audit close-out letter upon its completion.



Appendix 1: Audit Assessment

AP-01 Damage Prevention Program

Finding Status	No issues identified				
Regulation	OPR				
Regulatory Reference	47.2				
Regulatory Requirement	A company shall develop, implement and maintain a damage prevention program that anticipates, prevents, manages and mitigates damage to its pipeline and meets the requirements set out in section 16 of the Canadian Energy Regulator Pipeline Damage Prevention Regulations — Obligations of Pipeline Companies.				
Expected Outcome	 A compliant damage prevention program exists; Content in the damage prevention program anticipates, prevents, manages, and mitigates potential damage to the company's pipelines; The damage prevention program has been implemented; and The damage prevention program is maintained. 				
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interview was conducted related to this item: • An interview with the M&NP Damage Prevention Supervisor. • For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.				
Finding Summary	Within the scope and objectives of this audit, the CER Auditors determined that M&NP's damage prevention program meets the requirements of sections 6 and 47.2 of the OPR. The CER Auditors also found that M&NP is fulfilling the requirements of the three paragraphs of section 16 of the DPR-O regulations that were assessed during this audit, which were either clearly documented or referenced within the damage prevention program document. There was one issue of concern in fulfilling the requirements of paragraph 16(f) of the DPR-O, which is discussed in AP-07. The CER Auditors had no other issues of concern with the aspects of M&NP's damage prevention that were assessed through this audit.				

Detailed Assessment

As detailed in the expected outcomes section (above), M&NP was asked to demonstrate to the CER Auditors that it has a compliant damage prevention program. To be compliant, the damage prevention program must meet the requirements of sections 6 and 47.2 of the OPR and must also clearly indicate how it meets the requirements of section 16 of the DPR-O.

Section 6 of the OPR requires companies to establish, implement, and maintain a management system that applies to the programs referred to in section 55, which includes a damage prevention



program. It also requires that the management system ensures coordination between the programs referred to in section 55.

To demonstrate compliance with the requirements, M&NP provided the CER Auditors with a copy of the Enbridge GTM damage prevention program document, the GTM damage prevention program organization chart and the process it uses for capability management, which addresses competency and training requirements.

The damage prevention program is one of the management programs that comprise the GTM management system, which is aligned with the Enbridge management system structure. According to the management system structure, each business unit must have an integrated management system document that describes how the enterprise minimum requirements are being met. Each business unit must have six mandatory management programs, including a Damage Prevention Program.

Enbridge's management system framework document describes 11 elements that are built around the Plan-Do-Check-Act cycle, which each business unit's management system must implement. The elements of the GTM management system include:

- Element 1: Leadership and Governance;
- Element 2: Risk Management;
- Element 3: Requirements Management;
- Element 4: Performance Management;
- Element 5: Operational Controls;
- Element 6: Management of Change;
- Element 7: Capability Management;
- Element 8: Documents and Records:
- Element 9: Assurance:
- Element 10: Stakeholder Engagement; and
- Element 11: Management Review.

Within the 11 Elements, there are 30 individual processes which align with the requirements of subsection 6.5(1) of the OPR. The CER Auditors confirmed that corresponding processes within the damage prevention program document were linked to the GTM management system processes and meet the requirements of section 6 of the OPR.

Section 16 of the DPR-O lists six specific requirements of a damage prevention program, which are:

- an ongoing Public Awareness (**PA**) Program:
- ongoing monitoring of any changes in the use of land on which a pipeline is located and the land that is adjacent to that land;
- ongoing monitoring of any change in the landowner of the land on which a pipeline is located;
- a process to ensure a timely response to locate requests;
- standards for locating a pipeline; and
- a process for managing requests for the consent to construct a facility across, on, along or under a pipeline to engage in an activity that causes a ground disturbance within the prescribed area or to operate a vehicle or mobile equipment across the pipeline.



For the objectives and scope of this audit, the CER auditors only assessed three aspects of section 16 of the DPR-O, which included:

- Paragraph 16(b) Monitoring for change in land use
- Paragraph 16(c) Monitoring for change in land owner
- Paragraph 16(f) Managing requests for consent

For the exact legal requirements of section 16 of the DPR-O and specifically, paragraphs 16(b), 16(c), and 16(f), please refer to the DPR-O regulations.

Within the damage prevention program document, there are six components, which are:

- public awareness;
- land use & ownership monitoring;
- locates:
- field surveillance and monitoring;
- crossings; and
- ground disturbance.

As explained in the assessments of AP-05, AP-06, AP-07, and AP-08, the CER Auditors reviewed the documents associated with the above listed components. Overall, the documents, records, and activities assessed for the six components demonstrate that M&NP has the necessary processes in place to anticipate, prevent, manage, and mitigate potential damage to the company's pipelines.

In summary, within the scope and objectives of this audit, the CER Auditors determined that M&NP's damage prevention program meets the requirements of sections 6 and 47.2 of the OPR. The CER Auditors also found that M&NP fulfilled the requirements of the three paragraphs of section 16 of the DPR-O regulations that were assessed during this audit, which were either clearly documented or referenced within the damage prevention program document. There was one issue of concern in fulfilling the requirements of paragraph 16(f) of the DPR-O, which is discussed in AP-07 and resulted in a finding of non-compliance. The CER Auditors, as a practice, do not typically find an auditee non-compliant twice for one issue and since the non-compliance will be addressed in AP-07, it will not be duplicated here. The CER Auditors had no other issues of concern with the aspects of M&NP's damage prevention that were assessed through this audit.



AP-02 Establish and implement a process for identifying and analyzing hazards

Finding Status	No issues identified		
Regulation	OPR		
Regulatory Reference	6.5(1)(c)		
Regulatory Requirement	A company shall, as part of its management system and the programs referred to in section 55 establish and implement a process for identifying and analyzing all hazards and potential hazards.		
Expected Outcome	 The expected outcomes are as follows: The company has a compliant process that is established and implemented; The methods for identification of hazards and potential hazards are appropriate for the nature, scope, scale, and complexity of the company's operations, activities, and the damage prevention program; The identification of hazards and potential hazards must include the full life cycle of the pipeline; The company has comprehensively identified and analyzed all relevant hazards and potential hazards; The hazards and potential hazards have been identified for the company's scope of operations through the lifecycle of the pipelines; and The identified hazards and potential hazards have been analyzed for the type and severity of their consequences. 		
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interview was conducted related to this item: • An interview with the Hazard Identification and Inventory Process Owner. • For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.		
Finding Summary	Within the scope and objectives of this audit, the CER Auditors determined that M&NP has established and implemented the required hazard identification and risk analysis process and meets the expected outcomes.		

Detailed Assessment

To demonstrate compliance with the requirements of paragraph 6.5(1)(c) of the OPR, M&NP provided the CER Auditors with documents and records to demonstrate the use of the process and the training provided to staff related to the process.

The GTM management system - risk management document provides details on the maintenance of a high-level risk register including risk exposure, details on objective and consistent risk analysis, and evaluation of how each risk is to be treated and thereafter reviewed. It also provides details on



how it integrates with other processes such as the management of change. It references and links to two subordinate documents, which are:

- the GTM management system hazard Identification document; and
- the GTM management system operational risk management document.

Together the two documents provide an approach for managing the hazards and risks across GTM.

The GTM management system – operational risk management document defines the roles and responsibilities for the process as well as the review requirements for the process documents. The document defines the difference between hazard and risk as well as how process owners are to use an operational risk matrix to assess the consequence levels and likelihood levels for each outcome. The document describes the difference between the inherent risk, residual risk (after controls are applied) and the target risk, which is the level of risk that the GTM would like to achieve.

A review of the GTM management system - hazard identification document indicates that it is the primary document for hazard identification and risk assessment. It is used to identify and maintain a detailed and comprehensive inventory of known and potential hazards, assigning owners for controls and for ensuring controls and performance standards are identified for each hazard. Thereafter, it lists requirements for periodic review of controls to ensure they are meeting performance expectations against established standards. The process leads to the development of the GTM hazard inventory and corresponding high-level controls.

The GTM management system – operational risk management document provides an approach for identifying and assessing risk in GTM. It addresses the four stages of risk management, which are:

- risk identification;
- risk analysis;
- risk evaluation; and
- risk treatment.

The GTM management system - risk management document describes how the GTM management system - hazard identification document integrates with related processes to assess risks and implement controls.

The three main types of hazards within the scope of the hazard identification process are:

- safety hazards;
- · operational reliability hazards; and
- environmental hazards.

As explained in Section 9 of the damage prevention program document, the document complies with the requirements of the two GTM processes listed above. The GTM risk register is maintained within an enterprise risk management application.

M&NP demonstrated that the hazard identification process has been implemented and the identified hazards and potential hazards have been identified and the risks analyzed for the type and severity of their consequences. The company also demonstrated that the process applies to the full lifecycle of the pipeline.

The process documents provided by M&NP detail the roles, responsibilities, and accountabilities, as well as the document control and review requirements. M&NP provided examples of the training it



provides to its staff on the process. The company demonstrated that the documents are regularly reviewed and updated.

In summary, within the scope and objectives of this audit, the CER Auditors determined that M&NP has established and implemented the required hazard identification and risk analysis process and meets the expected outcomes.



AP-03 Establish and implement a process for developing and implementing controls

Finding Status	No issues identified
Regulation	OPR
Regulatory Reference	6.5(1)(f)
Regulatory Requirement	A company shall, as part of its management system and the programs referred to in section 55 establish and implement a process for developing and implementing controls to prevent, manage and mitigate the identified hazards, potential hazards and risks and for communicating those controls to anyone who is exposed to the risks.
Expected Outcome	 The expected outcomes are as follows: The company has a compliant process for developing and implementing controls; The method(s) for developing controls are appropriate for the nature, scope, scale, and complexity of the company's operations and activities and the damage prevention program; Controls are developed and implemented; Controls are adequate to prevent, manage and mitigate the identified hazards and risks; Controls are monitored on a periodic basis and as needed and reevaluated for changing circumstances; and Controls are communicated to those exposed to the risks.
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interview was conducted related to this item: • An interview with the Operational Risk Management Process Owner. • For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in the file directory associated with this audit.
Finding Summary	Within the scope and objectives of this audit, the CER Auditors determined that M&NP has a process for developing and implementing controls to prevent, manage and mitigate the identified hazards, potential hazards and risks and for communicating those controls to anyone who is exposed to the risks.



Detailed Assessment

To demonstrate compliance with the requirements of paragraph 6.5(1)(f) of the OPR, M&NP provided the CER Auditors with documents and records to demonstrate the use of the process and the training provided to staff related to the process.

Within the GTM management system - risk management document provides details on the maintenance of a high-level risk register including risk exposure, details on objective and consistent risk analysis, and evaluation of how each risk is to be treated (i.e., controlled) and thereafter reviewed.

According to the company, the identification and management of controls for the damage prevention program are carried out through the use of the GTM management system – hazard identification process; the GTM legal register; and the GTM management system – operational risk management document.

The GTM management system – hazard identification document is used to proactively manage risk by facilitating a systematic identification and periodic review of hazards and associated controls. The process is intended to provide governance and oversight of controls and control performance. It is used to identify and maintain a detailed and comprehensive inventory of known and potential hazards, assigning owners for controls and for ensuring controls and performance standards are identified for each hazard. Thereafter, it lists requirements for periodic review of the performance of controls against the established standards. Through this process, as referenced in Section 9.0 of the damage prevention program document, applicable controls are linked to the damage prevention program.

The GTM management system - operational risk management document provides an approach for identifying and assessing risk in GTM. It addresses the four stages of risk management, which are:

- risk identification;
- risk analysis;
- risk evaluation; and
- risk treatment.

The GTM legal register is a database of applicable regulatory requirements and lists the respective high-level controls which are used to address those requirements.

The adequacy of controls is based on a operational risk matrix, which is found in Appendix B of the GTM management system - operational risk management document.

Each process details the roles, responsibilities and accountabilities, document control and review requirements. The CER Auditors verified that the document control and review processes are being followed. M&NP also provided several documents to demonstrate the type of training provided to staff related to the processes.

Also, within the GTM management system - operational controls document provides a means to manage operational asset work across all regions and consists of four subordinate processes, listed below. The purpose of these processes is to ensure coordination of personnel activities and ensure work is carried out safely and in a coordinated manner through the application of appropriate controls:



- GTM management system normal and abnormal operational controls document
- GTM management system work management document
- GTM management system contractor management document
- GTM management system operational readiness document

The management of change process addresses how to identify and analyze new, potential or altered hazards arising from changes to company operations and activities, including the adjustment of controls.

The CER Auditors reviewed the supplied documents and records and conducted an interview with process owners and were satisfied that the processes have been implemented as established.

In summary, within the scope and objectives of this audit, the CER Auditors determined that M&NP has a process for developing and implementing controls to prevent, manage and mitigate the identified hazards, potential hazards and risks and for communicating those controls to anyone who is exposed to the risks.



AP-04 Establish and implement a process for identifying and managing change

Finding Status	No issues identified				
Regulation	OPR				
Regulatory Reference	6.5(1)(i)				
Regulatory Requirement	A company shall, as part of its management system and the programs referred to in section 55 establish and implement a process for identifying and managing any change that could affect safety, security or the protection of the environment, including any new hazard or risk, any change in a design, specification, standard or procedure and any change in the company's organizational structure or the legal requirements applicable to the company.				
Expected Outcome	 The expected outcomes are as follows: The company has a compliant process for identifying and managing change; Methods are defined to identify and manage change; and Impacts to the company management system the damage prevention program are identified and assessed. 				
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interviews are related to this finding: • An interview with the Management of Change Process Owner • For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.				
Finding Summary	The CER Auditors determined that within the scope and objectives of this audit, M&NP has the necessary process to manage changes to its assets, documents, organization and regulatory requirements including changes to hazards and risks. The process has been established and implemented and is being maintained.				

Detailed Assessment

To demonstrate compliance with paragraph 6.5(1)(i) of the OPR, M&NP provided the CER Auditors with copies of documents, forms, and records and a PowerPoint presentation to demonstrate the implementation of the process and related training.

Within the GTM management system - management of change document the minimum process requirements that shall be followed by each of the protection programs in order to manage change within GTM. It is the overarching document that describes the requirements for four types of change management. The GTM management system - management of change document also addresses how to identify and analyze new, potential or altered hazards arising from changes to company operations and activities.

Within Section 13 of the damage prevention program document, the four types of change subprocesses are referenced, which include:



- GTM management system asset management of change document: used whenever there
 is an alteration or adjustment to a pipeline, station or other facility required for measurement,
 processing, storage, gathering, transportation or distribution of oil or gas. The asset
 management of change document includes direction on how to manage asset changes that
 are either permanent, temporary, emergency, or replacement-in-kind;
- GTM management system document management of change document: applies to governance documents, such as process documents, asset-related records, drawings and data;
- GTM management system regulatory management of change document: used to manage changes to legal requirements; and
- GTM management system organizational management of change document: applies to changes in people leaders and to changes in organizational restructuring, key personel changes and transition of accountabilities and/or roles for an individual or a team.

The GTM management system - management of change document provided by M&NP detailed the roles, responsibilities and accountabilities, and document control and review requirements. The CER Auditors verified that the document control and review processes are being followed. M&NP also demonstrated how training is conducted for the different management of change types and that the overall process has been in use for a minimum of three months.

The GTM management system - management of change document addresses how to identify and analyze new, potential or altered hazards arising from changes to company operations and activities. As indicated in the document, each change must be evaluated for potential risks and hazards. This is reflected in the GTM management system - asset management of change document where one of the stated purposes of the process is to ensure that changes to an asset do not introduce new hazards or increase risk of existing hazards.

Through document review and interviews and a sampling of records and checklists, the CER Auditors determined that within the scope and objectives of this audit, M&NP has the necessary process to manage changes to its assets, documents, organization and regulatory requirements including changes to hazards and risks. The process has been established and implemented and is being maintained.



AP-05 Damage Prevention Program – Minimum Content – Monitoring – Change in Land Use

Finding Status	No issues identified		
Regulation	DPR-O		
Regulatory Reference	16(b)		
Regulatory Requirement	The damage prevention program that a pipeline company is required to develop, implement and maintain under section 47.2 of the <i>Canadian Energy Regulator Onshore Pipeline Regulations</i> 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.		
Expected Outcome	 The expected outcomes are as follows: The Damage Prevention Program is developed, implemented, and maintained; The Damage Prevention Program references ongoing monitoring of changes to land use, both adjacent and on land within which the pipeline is located; and The company can provide evidence to demonstrate ongoing monitoring of land use is occurring. 		
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interview was conducted related to this issue: • Damage Prevention Supervisor • Lands & ROW Administration Supervisor • DP SME • For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.		
Finding Summary	Within the scope and objectives of the audit, the CER Auditors determined that M&NP fulfilled the requirements of paragraph 16(b) of the DPR-O regulations, which were either clearly documented or referenced within the damage prevention program document and included associated standards and procedures.		

Detailed Assessment

To demonstrate compliance with the regulatory requirement listed above, M&NP provided the CER Auditors with a copy of the damage prevention program document which describes the framework and requirements of the damage prevention program components listed in AP-01, including land use and ownership monitoring. The document describes the connection to related departments in the process such as public awareness, lands and right-of-way, aviation, regional operations, and operational compliance. It provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. It also discusses review requirements in accordance with M&NP's document management process.

The land use/ownership monitoring governance document provides company requirements for monitoring and maintaining landowner lists in the vicinity of pipelines to effectively prevent pipeline



damage by identifying hazards and manage risks related to land use and ownership. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The aerial patrol governance document provides company requirements for completing aerial patrols, including the mandatory use of a pipeline patrol checklist to meet the requirements of the Canadian Standards Association Standard Z662:2019 – Oil and gas pipeline systems (CSA Z662:19) frequency of patrols, and required observations to be documented and reported. The document provides roles and responsibilities, accountabilities and the training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The pipeline patrol checklist is to be used by the right-of-way patrol observer and completed for every scheduled or additional aerial patrol. It provides a list of items required to be documented and reported including changes in land use and other related items. The document provides the training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The unauthorized activity reporting document provides company requirements for investigation, reporting and follow-up on unauthorized activity in the vicinity of the company pipelines. Unauthorized activity reports can also point to changes in land use. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The one-call ticket management document details the steps required to screen one-call locate requests and respond appropriately. It includes the roles, responsibilities, and accountabilities for the process. The document provides the training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per M&NP's document management process.

The guideline document for construction near company pipelines provides the technical guidelines required by section 15 of the DPR-O that companies must provide to persons planning the construction of a facility across, on, along or under the pipeline or a ground disturbance activity in the prescribed area.

The Canada class determination document provides the processes performed to identify, document, publish and maintain class location ranges along the pipeline alignment. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the company's document management process.

The related damage prevention program document procedures, standards, and guidelines provide both proactive and active measures to monitor land use change in the proximity of the company's pipelines. These are discussed below.

Proactive Monitoring

The damage prevention team works with regional operations, lands and crossings teams, aviation, and other departments to proactively monitor for changes in land use in the proximity of the company's pipelines. Land use change is defined as a permanent change in the classification of the types of occupancy and land use an area can support. M&NP has divided land use changes into 10 categories to aid in identification, investigation, and response.



Active Monitoring

In the event a land use change has occurred without the company's notification or consent (where required), the damage prevention team, with support from the regional operations team, lands and crossings and other departments identify and report potential land use changes within the prescribed area via unauthorized activity reporting. Investigation of unauthorized activities can identify changes in land use and determine if the changes have the potential to damage the pipeline, the public or the environment, and implement mitigation where necessary.

The damage prevention team has recently initiated the use of a geographic information systems (GIS) to collect aerial imagery to map and monitor land use along the company asset system. If new structures are identified within 660 feet (200 metres) of the company assets through field surveillance reporting or a digital imagery review, internal processes are used to determine the impact a land use change has on the class location and recommend mitigation to maintain the safety and security of the assets. Increased monitoring of growth areas along the pipeline alignment assists the damage prevention program in identifying changes in land use.

Upon confirmation of a change in land use where the company did not receive notification, damage prevention and lands and crossings as part of the unauthorized activity investigation process may issue a letter to the offending party providing the regulatory requirements, potential administrative monitory penalties, and instructions on how to avoid any concerns in the future. The public awareness program may also initiate supplementary messaging intended to prevent such issues in the future.

The CER Auditors reviewed the process documents and interviewed M&NP employees to evaluate the degree to which the damage prevention program is meeting the requirements of section 47.2 of the OPR and paragraph 16 (b) of the DPR-O. It was found that all the requirements were either documented or referenced within the damage prevention program document. M&NP also demonstrated through evidence provided and through employee interviews that training requirements have been identified and executed.

In summary, within the scope and objectives of this audit, the CER Auditors determined that M&NP fulfilled the requirements of paragraph 16(b) of the DPR-O regulations, which were either clearly documented or referenced within the damage prevention program document and included associated standards and procedures.



AP-06 Damage Prevention Program – Minimum Content – Monitoring – Change in Land Owner

Finding Status	No issues identified
Regulation	DPR-O
Regulatory Reference	16(c)
Regulatory Requirement	The damage prevention program that a pipeline company is required to develop, implement and maintain under section 47.2 of the <i>Canadian Energy Regulator Onshore Pipeline Regulations</i> must include ongoing monitoring of any change in the landowner of the land on which a pipeline is located.
Expected Outcome	 The expected outcomes are as follows: The Damage Prevention Program is developed, implemented, and maintained; The Damage Prevention Program references ongoing monitoring of changes of landowners, for both adjacent land and on land within which the pipeline is located; and The company can provide evidence to demonstrate ongoing monitoring of landowners is occurring.
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interview was conducted related to this issue: Damage Prevention Supervisor Lands & ROW Administration Supervisor DP SME For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.
Finding Summary	Within the scope and objectives of the audit, the CER Auditors determined that M&NP fulfilled the requirements of paragraph 16(c) of the DPR-O regulations, which were either clearly documented or referenced within the damage prevention program document and included associated standards and procedures.

Detailed Assessment

To demonstrate compliance with the regulatory requirement listed above, M&NP provided the CER Auditors with a copy of the damage prevention program document which describes the framework and requirements of the damage prevention program components listed in AP-01, including land use and ownership monitoring. The document describes the connection to related departments in the process such as public awareness, lands and right-of-way, aviation, regional operations, and operational compliance. It provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. It also discusses review requirements in accordance with M&NP's document management process.



The land use/ownership monitoring governance document provides company requirements for monitoring and maintaining landowner lists in the vicinity of pipelines to effectively prevent pipeline damage by identifying hazards and manage risks related to land use and ownership. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The aerial patrol governance document provides company requirements for completing aerial patrols, including frequency of patrols, and required observations to be documented and reported. The document provides roles and responsibilities, accountabilities and the training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The pipeline patrol checklist provides a list of items required to be documented and reported including changes in land use and other related items. The document provides the training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The unauthorized activity reporting document provides company requirements for investigation, reporting and follow-up on unauthorized activity in the vicinity of the company pipelines. unauthorized activity reports can also point to changes in land use and ownership. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The one-call ticket management document details the steps required to screen one-call locate requests and respond appropriately. It includes the roles, responsibilities and accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per M&NP's document management process.

The guideline document for construction near company pipelines provides the technical guidelines required by section 15 of the DPR-O that companies must provide to persons planning the construction of a facility across, on, along or under the pipeline or a ground disturbance activity in the prescribed area. The date on the document (assumed to be original date of issue) is 02/06/2018.

The Canada class determination document provides the processes performed to identify, document, publish and maintain class location ranges along the pipeline alignment. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the company's document management process.

The GTM management system - external communications document outlines how M&NP communicates and engages with external stakeholders regarding the protection of people, property, and the environment. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. M&NP demonstrated that this document was reviewed within the appropriate timeframe as per the document management process.

The related damage prevention program document procedures, standards, guidelines, etc. provide both proactive and active measures to monitor changes in land ownership and use in proximity of the company pipelines. These are discussed below.



Proactive Monitoring

The damage prevention team works with regional operations, lands and crossings teams, aviation, and other departments to proactively monitor for changes in land ownership and use in the proximity of the company pipelines. A regional operations database contractor performs searches for ownership changes, which are passed on to update the landowner and occupant database.

The lands and right of way department maintains a database of landowner and occupant information for the pipeline right of way, which is periodically revised with new or updated details. Changes to landowner ownership are identified through several mechanisms, including the following:

- public awareness bounce back postcards;
- crossing consent requests;
- land sale communications;
- investigation of undelivered mail from the lands and right-of-way and public awareness;
- outreach activities; and
- periodic land title searches through official sources.

Damage prevention program along with stakeholders perform an annual review of the effectiveness of the land use and ownership monitoring processes and incorporate improvements into the program.

Active Monitoring

In the event a land use change has occurred without the company's notification or consent (where required), the damage prevention team, with support from regional operations, lands and crossings and other departments identify and report potential land use changes within the prescribed area via unauthorized activity reporting. Investigation of unauthorized activities can identify changes in land ownership and determine if the changes have the potential to damage the pipeline, the public or the environment, and implement mitigation where necessary.

The damage prevention team has recently initiated the use of a GIS to collect aerial imagery to map and monitor land use along the company asset system. If new structures are identified within 660 feet (200 metres) of the company assets through field surveillance reporting or a digital imagery review, internal processes are used to determine the impact a change has on the class location and recommend mitigation to maintain the safety and security of the assets. Increased monitoring of growth areas along the pipeline alignment assists the damage prevention program in identifying changes in land ownership and usage.

Upon confirmation of an activity where the company did not receive notification, damage prevention and lands and crossings, as part of the unauthorized activity investigation process, may issue a letter to the offending party providing regulatory requirements, potential administrative monitory penalties, and instruction on how to avoid any concerns in the future. The public awareness program may also initiate supplementary messaging intended to prevent such issues in the future.

The CER Auditors reviewed the corresponding process documents and interviewed M&NP employees to evaluate the degree to which the damage prevention program is meeting the requirements of section 47.2 of the OPR and paragraph 16(c) of the DPR-O. It was found that all the requirements were either documented or referenced within the damage prevention program document. M&NP demonstrated through evidence provided and through employee interviews that training requirements have been identified and executed.



In summary, within the scope and objective of the audit, the CER Auditors determined that M&NP fulfilled the requirements of paragraph 16(c) of the DPR-O regulations, which were either clearly documented or referenced within the damage prevention program document and included associated standards and procedures.



AP-07 Damage Prevention Program – Minimum Content – Managing Requests for Consent

Finding Status	Non-compliant Non-compliant
Regulation	DPR-O
Regulatory Reference	16(f)
Regulatory Requirement	The damage prevention program that a pipeline company is required to develop, implement and maintain under section 47.2 of the Canadian Energy Regulator Onshore Pipeline Regulations must include a process for managing requests for the consent to construct a facility across, on, along or under a pipeline, to engage in an activity that causes a ground disturbance within the prescribed area or to operate a vehicle or mobile equipment across the pipeline.
Expected Outcome	 The expected outcomes are as follows: The company has a compliant process; The process addresses requests for consent to: construct a facility across, on, along, or under a pipeline; engage in an activity that causes ground disturbance within the prescribed area; and operate a vehicle or mobile equipment across the pipeline. The process describes how consent is determined; The process describes how the issuance or denial of consent is communicated to the requestor; and The company can demonstrate the process has been used.
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interviews are related to this finding: Damage Prevention Manager Damage Prevention Supervisor Lands & ROW Crossings and Permitting Supervisor Lands and ROW Analyst Regional Operations Field Technician For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.



Finding Summary

The CER Auditors determined that Section 2.0 of M&NP's guideline document for construction near company pipelines does not meet the requirements of paragraph 16(f) of the DPR-O. It allows for a passenger-sized vehicle to cross the pipeline without requiring consent. In addition, the document was found to be out of date because it contained references to National Energy Board (NEB) regulations from 2018, it contained a broken hyperlink and referenced a 2018 NEB document that has subsequently been replaced. Also, although outside the scope of the audit, the guideline does not address the requirements of subsection 338(1) of the CER Act.

Detailed Assessment

To demonstrate compliance with these requirements, M&NP provided the CER with a copy of its damage prevention program document, which describes the framework and roles and responsibilities of the damage prevention components, including managing consents. The document also highlights the connection to related departments in the process: public awareness, lands and right-of-way, aviation, regional operations, and operational compliance. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. This document was reviewed within the appropriate timeframe as per the document management process.

Crossings and management process – describes the requirements for receiving, reviewing, and responding to requests for consent. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. This document was reviewed within the appropriate timeframe as per the document management process.

On-site approval agreement – document that is used by Regional Operations staff to respond to on-site crossing work. This document describes the requirements and conditions for a company performing crossing activities in the vicinity of the pipeline. It is provided along with the locate documentation. This document was reviewed within the appropriate timeframe as per the document management process.

Guideline document for construction near company pipelines – provides the technical guidelines required as per section 15 of the DPR-O which companies must provide to persons planning the construction of a facility across, on, along or under the pipeline or a ground disturbance activity in the prescribed area. The date on the document (assumed to be original date of issue) is 02/06/2018, more than 5 years ago.

One-call ticket management document – details the steps required to screen one-call locate requests and respond appropriately. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. This document was reviewed within the appropriate timeframe as per the document management process.

Unauthorized activity reporting document – provides company requirements for investigation, reporting and follow-up on unauthorized activity in the vicinity of the company pipelines. Unauthorized activity reports can also point to changes in land use and ownership. The document provides the roles and responsibilities, accountabilities and training requirements for employees engaged in the process. This document was reviewed within the appropriate timeframe as per the document management process.



As a key component of the damage prevention team, lands and right-of-way support the damage prevention program by:

- participating in the implementation of the damage prevention management plan and its components and applicable initiatives;
- receiving third-party crossing and encroachment applications and coordinating assessments with internal stakeholder groups;
- issuing and documenting the crossing and encroachment consents;
- advising, consulting and engaging damage prevention program manager or subject matter experts in changes to the crossing and encroachment process and its supporting documentation; and
- participating in internal stakeholder engagement to monitor, measure and improve the damage prevention program annual goals objectives and targets.

M&NP communicates the importance and requirement of obtaining consents to construct a facility across, on, along or under a pipeline, to engage in an activity that cause ground disturbances within the prescribed area or to operate a vehicle or mobile equipment across the pipeline through its public awareness outreach program, brochures, company website, landowner visits, etc. In addition, they distribute the company's technical requirements for crossing or performing an activity that would create a ground disturbance in the prescribed area. The company has a guidance document that details its requirements for construction near its pipelines which it provides to anyone requesting technical requirements.

Upon receipt of a request for consent, the crossing analyst reviews the request for completeness against a crossing application checklist. If the application is incomplete, the applicant is informed, and the additional information is requested. When all information has been provided, the crossing analyst tracks the time to complete the request. The company has 10 days to respond to the applicant with an approval or denial (including reasons for the denial). If the company exceeds the 10-day limit due to complexity of the proposed work, they remain in communication with the applicant and agree on a reasonable extension.

The crossing is sent to various internal stakeholders (e.g., pipe integrity, regional operations, cathodic protection) to review the request and provide comments. When the review is completed and feedback incorporated, the completed agreement is sent to the applicant for signature. The signed agreement is returned to M&NP for signature and final execution.

Prior to the commencement of construction, the applicant (or contractor) submits a locate request through the local one-call service. The one-call request is reviewed and forwarded to the appropriate regional operations to communicate with the requestor and arrange to provide a locate. The Regional representative monitors and inspects all ground disturbance and construction activity within the prescribed area, and completes as-built documentation of the installation, which is then filed.

M&NP demonstrated that the process has been developed and implemented, employees are appropriately trained, important aspects are monitored for assurance and addressed as necessary and that the process is reviewed regularly, and improvements incorporated (with one exception). M&NP demonstrated through evidence provided and through employee interviews that training requirements have been identified and executed.



The requirements of DPR-O 16(f) were met, with one exception. M&NP provided evidence to demonstrate that the company has a process for managing requests for consent to construct a facility across, on, along or under a pipeline, to engage in an activity that causes a ground disturbance within the prescribed area or to operate a vehicle or mobile equipment across the pipeline. However, there were areas of the damage prevention program that the CER Auditors determined were not in compliance. Referring to M&NP's guideline document for construction near company pipelines, the following issues were noted:

- Section 2.1 states: Crossing with anything larger than a standard passenger vehicle or mobile equipment outside the travelled portion of a highway or public road (requires written permission). This does not align with the requirements of paragraph 16(f) of the DPR-O, which states that all vehicles and mobile equipment require consent. The date on the document (assumed to be original date of issue) is 02/06/2018, which appears to have not been reviewed more than 5 years. During interviews M&NP confirmed that the document is currently being reviewed and updated through the document management of change process. The CER Auditors did not review the draft version of this document.
- The current version of the document has not been updated to reflect the change from the National Energy Board (NEB) to the CER with numerous instances of incorrect references to the NEB.
- Although outside the scope of the audit, the CER Auditors noted that Section 7 Blasting
 appears not to be following Section 338(1) of the CER Act, which requires the authorization
 of a designated officer to conduct certain activities within 40 m of the pipeline.

In summary, the CER Auditors determined that Section 2.1 of M&NP's guideline document for construction near company pipelines does not meet the requirements of paragraph 16(f) of the DPR-O. It allows for a passenger-sized vehicle to cross the pipeline without requiring consent. In addition, the document was found to be out of date because it contained references to NEB regulations from 2018, it contained a broken hyperlink and referenced a 2018 NEB document that has subsequently been replaced. And, although outside the scope of the audit, the guideline does not address the requirements of subsection 338(1) of the CER Act.



AP-08 Establish and implement a process for internal and external communication of information

Finding Status	No issues identified
Regulation	OPR
Regulatory Reference	6.5(1)(m)
Regulatory Requirement	A company shall, as part of its management system and the programs referred to in section 55 establish and implement a process for the internal and external communication of information relating to safety, security and protection of the environment.
Expected Outcome	The expected outcomes are as follows: • The company has a compliant process that is established and
	 implemented; The methods for both internal communication and external communication are defined;
	 The company is communicating internally and externally related to safety, security, and protection of the environment; and Internal and external communication is occurring, and it is adequate for the management system and the damage prevention program implementation.
Relevant Information Provided by the	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER.
auditee	The following interviews are related to this finding:
	 An interview with the Public Awarness Manager and Damage Prevention Supervisor.
	 For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.
Finding Summary	Within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process for both internal and external communications. The company demonstrated that it communicates internally and externally on matters related to safety, security and protection of the environment and the communications are adequate for the implementation of the damage prevention program.

Detailed Assessment

To demonstrate compliance to paragraph 6.5(1)(m) of the OPR, M&NP provided the CER auditors with the following two PowerPoint presentations, titled:

- AP-08 Establish and implement a process for internal communication of information; and
- CER Audit MNP AP-08 External communications public awareness.

The GTM management system – communication process establishes, implements, and maintains links to sub-processes and associated plans for communication and engagement with internal and



external stakeholders relating to safety, security, and protection of the environment. Included in this are the GTM management system - internal communication process and the GTM management system - external communication process; both of which detail the roles and responsibilities, as well as document control and review requirements which were confirmed to be performed as planned.

The communication process establishes minimum requirements when communicating about the management system and programs to internal and external stakeholders. It is applicable to all types of communications, including those applicable to the damage prevention program. Section 16 of the damage prevention program document shows its integration with the GTM management system – communication process.

A GTM damage prevention communication plan is developed annually pursuant to the communication process. It identifies objectives, internal and external stakeholders, message content, delivery method, frequency, and channels of communication to enable the systematic delivery of damage prevention related information. It also specifies that the program manager (or designate) will review and update the communication plan annually.

As an example of internal communications undertaken by the damage prevention program, each month the damage prevention and the public awareness teams meet to review trends and needs. Interaction between damage prevention and public awareness is also carried out through a joint business unit damage prevention workgroup.

The following records and documents were provided to demonstrate how internal communication is performed:

- The GTM damage prevention communication plan, which identifies target stakeholder(s) and channels of communication to enable the systematic delivery of damage prevention information:
- GTM damage prevention communication email, which lists damage prevention documents that were created or revised during 2022; and
- GTM Operations Services newsletter, which is an example of a weekly newsletter that is sent to GTM Field Operations, Asset Integrity and Engineering & Asset Management team members and provides, among other information, safety messages and updates to programs and initiatives, including updates to the damage prevention program.

A primary means of external communication for the damage prevention program is facilitated by its Public Awareness Program and subsequential Public Awareness Plan that is updated annually at minimum. Public Awareness is applied by the Public Affairs, Communication and Sustainability corporate team, which supports and engages with the damage prevention program in the following ways:

- educate the public to promote pipeline damage prevention, safety, and environmental protection and create a foundation of goodwill with internal and external stakeholders;
- deliver continuing education to affected internal and external stakeholders (including landowners and land users) about the presence of assets, how to work safely near the assets, how to report any contact or damage, the regulatory and compliance requirements and how to use the one-call center services, and how to deal with emergencies if they occur;
- develop and execute an annual public awareness and communication plans;
- collaborate with damage prevention team, lands and right of way, and emergency management with regards to land use and ownership information; and
- supports damage prevention with communication and resolution of unauthorized activity investigations through supplemental education of external stakeholders and review of internal process as required.



The GTM management system - external communication process identifies the external priority audience stakeholder as:

- affected public / landowners;
- Indigenous People;
- regulators / government officials; and
- industry associations.

Mailouts are sent out on an annual basis and the effectiveness of the communication is assessed via surveys, annual self-assessment review and protection program audits that are completed every three years as required by the OPR.

The lands and right of way department maintains a database of landowner and occupant information for the pipeline right of way that is available to the damage prevention team, field operations, project services and public awareness. This database is periodically revised with new or updated details and is used by the public awareness team to target damage prevention messaging. Landowners are met by the damage prevention team on as-needed basis, often when landowner or land use changes occur. Any supplemental programs are flexible and based on local needs.

For other external communication methods applicable to the damage prevention program, refer to:

- AP-05 Monitoring for Change in Land Use,
- AP-06 Monitoring for Change in Landowner, and
- AP-07 Managing Requests for Consent.

The following records and documents are provided to demonstrate how external communication is performed:

- mailout Natural Gas Pipeline Safety and Emergency Information brochure;
- radio ad call/click before you dig; and
- social media results of Call Before You Dig Awareness Campaign.

Other examples of communication provided to the CER Auditors included:

- emergency responders reply card;
- emergency responders map;
- landowner letter;
- abandonment postcard;
- landowner and emergency planning zone reply card;
- landowner information form;
- living and working near a pipeline right of way;
- public officials reply card;
- copy of safety message prepared for CDN firefighters last year
- natural gas pipeline safety and emergency information for emergency responders;
- natural gas pipeline safety and emergency information for excavators, contractors, and our community;
- natural gas pipeline safety and emergency information for our neighbors for landowners, including those in the emergency planning zone; and
- natural gas pipeline safety and emergency information for public works, officials and community leaders.



No records of communications issued to persons engaged in agricultural activities where the activity could impair the pipeline's safety or security were provided to the CER Auditors. However, it was indicated that the depth of cover data collection process requires written communication to any landowners where low depth of cover is discovered. Section 5 of this process states that the lands & right-of-way group will support regional operations in issuance of letters to landowners as per section 7 of the DPR-O. Section 6.2 of this process notes the requirement that the pipeline company must identify those locations and must notify the landowners of the specific locations in question. Given this clarification and the confirmation during the interviews regarding no low depth of cover areas identified along M&NP assets, CER audit team was satisfied with this response.

In summary, within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process for both internal and external communications. The company demonstrated that it communicates internally and externally on matters related to safety, security and protection of the environment and the communications are adequate for the implementation of the damage prevention program.



AP-09 Establish and implement a process for internal reporting of hazards and for taking corrective actions

Finding Status	No issues identified
Regulation	OPR
Regulatory Reference	6.5(1)(r)
Regulatory Requirement	A company shall, as part of its management system and the programs referred to in section 55 establish and implement a process for the internal reporting of hazards, potential hazards, incidents and near-misses and for taking corrective and preventive actions, including the steps to manage imminent hazards.
Expected Outcome	 The expected outcomes are as follows: The company has a compliant process that is established and implemented; The company has defined its methods for internal reporting of hazards, potential hazards, incidents and near-misses; Hazards and potential hazards are being reported as required by the company's process; Incidents and near-misses are being reported as required by the company's process; The company has defined how it will manage imminent hazards; The company is performing incident and near-miss investigations; The company's investigation methodologies are consistent and appropriate for the scope and scale of the actual and potential consequences of the incidents or near misses to be investigated; The company has defined the methods for taking corrective and preventive actions; and The company can demonstrate through records that all corrective and preventive actions can be tracked to closure.
Relevant Information Provided by the auditee	 The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interviews are related to this finding: An interview with the Supervisor, Safety Management Systems, Safety Advisor and Damage Prevention Supervisor. For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.
Finding Summary	Within the scope and objectives of this audit, the CER Auditors determined that M&NP has a process for the internal reporting of hazards, potential hazards, incidents, and near misses and for taking corrective and preventive actions.

Detailed Assessment

To demonstrate compliance to the requirements of paragraph 6.5(1)(r) of the OPR, M&NP provided the CER Auditors with a copy of its GTM hazard assessment and control process, its damage



prevention program document and the GTM health and safety governance document, which all section 55 program areas are required to follow.

The company also provided the CER Auditors with a PowerPoint presentation on the hazard assessment and control process used by workers to systematically identify, control, and eliminate potential and actual hazards, including imminent hazards. The process identifies roles and responsibilities for stopping work, reporting, and addressing any unsafe work conditions, non-compliance, or imminent hazards.

The hazard assessment and controls processes fall within the company's safety management program. The damage prevention program links to the safety management program within its scope, which states that requirements from the damage prevention program apply to all GTM management system programs and elements/processes.

M&NP internally reports hazards, potential hazards, incidents, and near-misses using various methods including:

- Safe Work Permit Records;
- Job Hazard Analysis Record;
- Field Level Hazard Assessment Records; and
- Incident and Investigation Records.

Examples of each type of record were provided to CER Auditors.

Additional hazard control tools (e.g., inspections, assessments, confined space entry permitting) are utilized depending on the scope of the work and the associated hazards.

The process describes roles and responsibilities for workers, and contractors among many other positions for the reporting of incidents. M&NP uses an enterprise risk management application for its incident management process. Employees and workers shall immediately report all incidents to their people leader and/or the person in charge/authorized representative or designate. Each people leader shall enter incidents into the system within 24 hours for severe incidents or 48 hours for less severe incidents. They must then initiate the incident investigation which are to be completed within 30 days of the event being reported, when possible.

M&NP stated during interviews that employees and contractors can report incidents and events without retribution. As proof, M&NP provided the CER Auditors with a screenshot of its norepercussion policy where the VP, Safety & Reliability affirms that:

"People Leaders are responsible for promoting open communication and trust in the workplace so that workforce personnel feel secure about voicing concerns, without any real or implied threat of retaliation. Workforce personnel can make a good faith report to a People Leader, Ethics & Compliance, Human Resources, Law, or the Enbridge Ethics Helpline."

Unauthorized activities are also entered into the enterprise risk management application. The unauthorized activity reporting document is the main document used by the damage prevention program to identify and report unauthorized activities on or near the right of way. Damage prevention submits the initial unauthorized activity report to the CER via the Online Event Reporting System. This must be completed within 24 hours of the event discovery. The procedure also states that any damage to the pipe must be reported, even if it occurred during an activity that was authorized. All observed unauthorized activity events must be reported to manager/supervisor as soon as practical and safe to do so and entered in the system within the 24 hours or next business day.



All incidents must be reported, investigated, and lessons learned developed in accordance with Section 11.1 (incident management) of the GTM health and safety governance document so that controls can be put in place to prevent the incident from happening again. Furthermore, the scope section of the GTM health and safety governance document sets the minimum requirements for investigation for all incidents of actual or potential severity level 2 and higher as described in the incident severity matrix.

The development of CAPAs for events having an actual or potential severity level below 2 is not mandated, however, as stated in scope section of the health and safety governance document, "Area Management can request that a full incident investigation be completed for any incident with an actual or potential of less than severity level 2". No examples of CAPAs for severity events rated below 2 were provided to CER Auditors.

Investigations must determine both immediate and root cause(s) and provide recommendations in the form of CAPAs, including their potential for system-wide application. CAPAs are developed for each root cause that is identified in the incident report, must be assigned to an individual, need to be measurable and have a completion date.

Samples were provided to the CER Auditors as examples of evidence of corrective actions.

During interviews, M&NP provided additional examples for corrective actions taken that were applicable to the damage prevention. It was discussed that any outstanding CAPAs are reviewed as part of an annual Management Review process.

In summary, within the scope and objectives of this audit, the CER Auditors determined that M&NP has a process for the internal reporting of hazards, potential hazards, incidents, and near misses and for taking corrective and preventive actions.



AP-10 Establish and implement a process for inspecting and monitoring company activities for effectiveness

Finding Status	No issues identified
Regulation	OPR
Regulatory Reference	6.5(1)(u)
Regulatory Requirement	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.
Expected Outcome	The expected outcomes are as follows: • The company has a compliant process that is established and
	 implemented; The company has developed methods for inspecting and monitoring their activities and facilities; The company has developed methods to evaluate the adequacy and effectiveness of the damage prevention program; The company has developed methods for taking corrective and preventive actions when deficiencies are identified; The company is completing inspections and monitoring activities as per the company's process; and The company retains records of inspections, monitoring activities, and corrective and preventive actions implemented by the company.
Relevant Information Provided by the auditee	The list of documents and records that the CER reviewed related to this assessment are kept on file with the CER. The following interviews are related to this finding:
	 An interview with the GTM Assurance Manager and Damage Prevention Supervisor. For a complete list of M&NP Staff that were present during the virtual interview, the CER holds a detailed list in its file directory associated with this audit.



Finding Summary

Within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process to inspect and monitor the company's activities and facilities to evaluate the adequacy and effectiveness of its damage prevention program and for taking corrective and preventive actions if deficiencies are identified.

Detailed Assessment

M&NP delivered a PowerPoint presentation and discussed the audits, assessments, and inspections process and the GTM management system – assurance document, which the damage prevention program is obligated to follow. The assurance activities for damage prevention are captured on the GTM annual assurance plan and include:

- Audits:
- Self-Assessments: and
- Assurance Inspections.

All three of these are linked to the GTM corrective and preventive action process.

M&NP's audits, assessment and inspection process outlines the process steps for undertaking audits and requires each program to conduct self-assessments and assurance inspections to examine its own processes. The self-assessment includes an evaluation of the implementation of those processes to determine if the processes are being implemented as designed and in accordance with the documented requirements.

Self-assessments are described as a review of the design of a process or a part of a process to determine if the design meets the requirements. Assurance inspections are described as a spot-checks regarding how the process is being implemented and whether it is being implemented as designed and as expected. The process defines roles and responsibilities and it's been in effect since December 2020. A training session was carried out when the process was first introduced and currently training is provided on an as-needed basis.

The damage prevention program uses the GTM management system - goals, objectives, and targets process and the metrics process to establish appropriate performance measures for the program. The performance measures are designed to evaluate program activities and effectiveness in meeting the overarching program goals. The Public Awareness Team is engaged during the review of damage prevention program annual goals, objectives, and targets process. The damage prevention program collects measurable data, including the outcome of assurance activities, to monitor the program's effectiveness and progress towards its annual goals, objectives, and targets. The key metrics and measures are tracked to monitor the performance of the program as part of management review activities. Evidence of quarterly management reviews indicating results of CAPA status for damage prevention was provided.

Damage prevention submitted its assurance plan for 2022 which was incorporated into the GTM master assurance plan for 2022. This plan was approved at the Q4 Governance Meeting. In addition, the 2021 assurance plan was also provided to the CER Auditors with associated evidence of completion, showing that the process is being used as intended for a minimum of three months.



M&NP conducts a variety of internal audits to assess the effectiveness of the processes, procedures and activities that manage risk and compliance. These include three-year interval audits for each section 55 Program to evaluate compliance with internal and external requirements. The process states that the findings identified in audits shall be incorporated into the annual management review reports developed by each program, management system element and function.

An internal audit of the damage prevention program including Public Awareness and associated management systems was conducted by an external party on 31 December 2020 to assess compliance with CER regulations, CER orders, certificates, referenced standards including CSA Z662:19, and internal company policies and procedures. The CER Auditors reviewed the audit report and were satisfied that it met the requirements of a section 55 program audit.

Examples of M&NP's methods for inspecting and monitoring its activities and facilities were provided, including their:

- Unauthorized activities reporting document;
- Evaluation of workers qualifications including:
 - List of occupational qualification (OQ) covered tasks that apply to Canadian operations;
 - Evaluation criteria for Covered Task 605OP Locate Line/Install Temporary Marking of Buried Pipeline; and
 - Screenshots illustrating the electronic entry in its database of qualification records for an M&NP employee.

Field assessment of line locators to assess competency is covered under skills portion of the assessment and occur on three-year interval. However, if the leader (e.g., supervisor or manager) has reason to believe that an OQ-qualified individual is not performing the OQ covered task properly or that the individual is otherwise no longer qualified to perform the task, the individual can be disqualified.

The CER Auditors reviewed documents and records and conducted an interview with M&NP staff to verify that the company has established the necessary processes, has implemented them, and they are being maintained.

In summary, within the scope and objectives of the audit, the CER Auditors determined that M&NP has a process to inspect and monitor the company's activities and facilities to evaluate the adequacy and effectiveness of its damage prevention program and for taking corrective and preventive actions if deficiencies are identified.



Appendix 2: Terms and Abbreviations

Term/Abbreviation	Definition
AP	Audit Protocol
CAPA	Corrective and Preventive Action
CER	Canada Energy Regulator
CV	Compliance Verification
DPR-O	Canadian Energy Regulator Pipeline Damage Prevention Regulations – Obligations of Pipeline Companies
GIS	Geographic Information System
GTM	Gas Transmission and Midstream
LNG	Liquid Natural Gas
M&NP	Maritimes & Northeast Pipeline Management Limited
M&NP GP	Maritimes & Northeast Pipeline Management Limited General Partnership
OPR	Canadian Energy Regulator Onshore Pipeline Regulations
PPT	PowerPoint
ROW	Right of Way
SME	Subject Matter Expert

