



# Operational Monitoring Plan

Enbridge Energy, Limited Partnership • Line 3 Replacement Project

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## **ACRONYMS AND ABBREVIATIONS**

ASME	American Society of Mechanical Engineers
CFR	Code of Federal Regulations
Enbridge	Enbridge Energy, Limited Partnership
L3R or Project	Line 3 Replacement Project
MPCA	Minnesota Pollution Control Agency
PHMSA	Pipeline and Hazardous Materials and Safety Administration
Plan	Operational Monitoring Plan

## 1.0 INTRODUCTION

This Operational Monitoring Plan (“Plan”) describes the procedures that Enbridge Energy, Limited Partnership (“Enbridge”) will utilize to monitor for accidents and safety-related conditions during operation of the Line 3 Replacement Project (“L3R” or “Project”). Enbridge prepared this Plan based on its ongoing coordination with the Minnesota Pollution Control Agency (“MPCA”).

### 1.1 OPERATIONAL MONITORING PROCEDURES

Enbridge has a comprehensive Integrity Management Program designed to anticipate, prevent, monitor, and mitigate integrity risk and conditions that could adversely affect safety of the pipeline systems. L3R will be covered by this program.

Enbridge will report any safety-related conditions on L3R to the MPCA (along with other required regulatory agencies) and to monitoring upstream and downstream locations on surface waterbodies located within 30 feet of any identified safety-related condition on L3R. This surface water monitoring would continue from the initial field reconnaissance until the safety-related condition has been resolved through further evaluation, repair or other mitigative measure.

#### 1.1.1 Definitions

When reviewing this Plan, please note the following definitions:

- Feature – An anomaly/defect/indication/etc. (metal loss, crack deformation).
- Anomaly – An indication, detected by nondestructive examination (such as inline inspection). Source: American Society of Mechanical Engineers (“ASME”) B31.4.
- Defect – Discontinuity that by nature or accumulated effect render a part of product unable to meet minimum applicable acceptance standards or specifications. Source: ASME B31.4.
- Indication – Finding from a nondestructive testing technique or method that deviates from the expected. It may or may not be a defect. Source: ASME B31.4.
- Safety-related conditions – On a pipeline in service include:
  1. General corrosion that has reduced the wall thickness to less than that required for the maximum operating pressure, and localized corrosion pitting to a degree where leakage might result.
  2. Unintended movement or abnormal loading of a pipeline by environmental causes, such as an earthquake, landslide, or flood, that impairs its serviceability.
  3. Any material defect or physical damage that impairs the serviceability of a pipeline.
  4. Any malfunction or operating error that causes the pressure of a pipeline to rise above 110 percent of its maximum operating pressure.
  5. A leak in a pipeline that constitutes an emergency.

6. Any safety-related condition that could lead to an imminent hazard and causes (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent or more reduction in operating pressure or shutdown of operation of a pipeline.

Source: Title 49 Code of Federal Regulations (“CFR”) § 195.55

Notably, these terms are not synonymous with leak. For example, an anomaly may or may not be a defect, and a defect may or may not lead to a leak. Enbridge has a comprehensive set of standards, including appropriate safety factors, for further monitoring, evaluating and addressing identified anomalies.

### **1.1.2 Monitoring and Reporting**

Enbridge uses a variety of assessment and monitoring methods to evaluate its pipelines and facilities. For example, while in-line inspections are a valuable source of information, Enbridge also monitors pipeline operating pressure profiles for changes, patrols the right-of-way to identify abnormal surface conditions and monitors for environmental changes such as landslides, flooding, etc.

Enbridge’s Integrity Management Program includes protocols for further investigation of identified features. Based on the type and extent of the identified feature, Enbridge will take additional action to gather more information about the feature. Additional actions include, in priority cases, conducting field reconnaissance to look for evidence of leaks or other abnormal conditions on the right-of-way.

Under 49 CFR 195, Enbridge is obligated to report accidents and other safety-related conditions as presented in Table 1.1-1.

Table 1.1-1				
Federal and State Reporting Requirements for Accidents and Other Safety-Related Conditions				
Section Title	Federal Requirements (CFR 49)			Minnesota Requirements
	195.50	195.52	195.55	
	Reporting Accidents	Immediate notice of certain accidents	Reporting safety- related conditions	
What Enbridge must report:	<p>Enbridge must submit a report to Pipeline and Hazardous Materials and Safety Administration ("PHMSA") for each failure in a pipeline system in which there is a release of the hazardous liquid under certain conditions spelled out in this section.</p> <p>Release of 5 gallons or more of hazardous liquid, except that no report is required for a release of less than 5 barrels resulting from maintenance activities</p>	<p>Enbridge must report the release of the hazardous liquid for any failure that</p> <ul style="list-style-type: none"> <li>195.52(4) Resulted in pollution of any stream, river, lake reservoir, or other similar body of water that violated applicable water quality standards, cause a discoloration of the surface of the water, or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines,</li> <li>195.52(5) in the judgement of the operator was significant</li> </ul>	<p>Enbridge must report:</p> <ol style="list-style-type: none"> <li>general corrosion that has reduced the wall thickness to less than that required for the maximum operating pressure, and localized corrosion pitting to a degree where leakage might result</li> <li>unintended pipe movement or abnormal loading of a pipeline by environmental causes, such as an earthquake, landslide, or flood, that impairs its serviceability</li> <li>Any material defect or physical damage that impairs the serviceability of a pipeline</li> <li>Any malfunction or operating error that causes the pressure of a pipeline to reach above 110 percent of its maximum operating pressure</li> <li>A leak that constitutes an emergency</li> <li>Any safety-related condition that could lead to an imminent hazard and causes [...] a 20 percent or more reduction in operating pressure or shutdown of operation of a pipeline.</li> </ol>	<p>Any leak if not recovered that may cause pollution to any waters of the state. Waters of the state includes all surface and ground water.</p>

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How quickly does Enbridge report and to whom:	195.54 – Accident reports must, as soon as practicable, but not later than 30 days after the discovery of the accident, be filed with PHMSA	<ul style="list-style-type: none"> <li>195.52 (b) At the earliest practicable moment following discovery of a release, report by phone or email to the National Response Center</li> </ul> Followed by: <ul style="list-style-type: none"> <li>195.54 – Accident reports must, as soon as practicable, but not later than 30 days after the discovery of the accident, be filed with PHMSA</li> </ul>	195.56 Enbridge must file a report with PHMSA within 5 working days after the day a representative of the operator first determines that the condition exists, but not later than 10 working days after the day a representative of the operator discovers the condition	Immediately upon discovery, to the Minnesota Homeland Security and Emergency Management Minnesota Duty Officer, Department of Public Safety, division of Emergency Management

Enbridge will report these conditions to MPCA when Enbridge reports them to PHMSA.

### 1.1.3 Surface Water Monitoring

As discussed above, Enbridge conducts field reconnaissance to further evaluate features that could pose safety-related concerns. This field reconnaissance includes:

- When Enbridge discovers a feature that potentially could be a leak or may be compromising the safety factor of the pipeline, Enbridge deploys a local operations person to perform field reconnaissance:
  - Visual inspection of above ground conditions 50 feet upstream and downstream of the feature location to look for any oil that may have come to the surface of the ground or an oily sheen on water,
  - Odor check for any evidence of hydrocarbon smell,
  - Probing into the ground with a rod to check for contaminated soil (if the location is physically accessible and not frozen), and
  - Use of gas detection equipment to check for gases associated with hydrocarbons in the ambient air.
- The purpose of the field reconnaissance is to determine if there is any notable condition of concern at the location. In an event of seeing or smelling the presence of a hydrocarbon, Enbridge shuts down the pipeline and initiates emergency responses activities which include:
  - ensuring the location is secured for the safety of people,

- closing sectionalizing valves on the pipeline to reduce the volume of oil that may be leaking,
- setting up site containment if hydrocarbons could be transported by water,
- and testing of soil or surface water in laboratory to confirm whether there is in fact hydrocarbons and if the hydrocarbons originated from the pipeline.

If a leak from a pipeline is confirmed, Enbridge completes a repair of the pipeline before restarting the pipeline, removes contaminated soil and/or water and begins site restoration

In addition to these activities, Enbridge will conduct the following additional surface water monitoring as part of its evaluation of the safety-related conditions reported to PHMSA and MPCA:

- Beginning with the initial field reconnaissance assessment, if the site is safely accessible and waters are not frozen, Enbridge will sample and test surface waterbodies located within 30 feet of the identified features. Samples will be taken upstream and downstream of the identified feature.
- Testing will be completed by qualified personnel or consultants and will test for the presence of product constituents.
- This surface water monitoring will be conducted weekly until the safety-related condition has been resolved through future evaluation, repair or other mitigative measure.

## **2.0 SPILL PREVENTION AND RESPONSE**

L3R will be covered by the Midwest Region (North Dakota, Minnesota and Wisconsin) Response Zone Integrated Contingency Plan. The most recent version of this plan is dated 2019 version 6.0.

As required by 49 CFR 194.121(b), Enbridge will update the Response Zone Integrated Contingency Plan to include a reference to the L3R pipeline, facilities, new pipeline maintenance shops, and related emergency response equipment no later than 30 days after its in-service date. Expected changes include:

- Replacement of Line 3 with new line number in the pipeline listing;
- Revised state and county crossings chart;
- Revised regional overview map;
- Additional emergency response equipment locations added for Park Rapids and Hill City PLM shops;
- Revised pump station chart;
- Updated emergency response time map due to new equipment locations;



- Updated worst case discharge calculation chart to include the new line but no change in worst case discharge, as L3R is smaller than other existing pipelines;
- Revised county emergency response notification chart; and
- Revised water and highway crossings listings.

Enbridge will provide an updated Response Zone Integrated Contingency Plan including the L3R pipeline when it is submitted to the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.