



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety Administration**

901 Locust Street, Suite 480
Kansas City, MO 64106

WARNING LETTER

VIA ELECTRONIC MAIL TO: michael.koby@enbridge.com and
david.stafford@enbridge.com

November 20, 2020

Mr. Michael Koby
Vice President US Operations
Enbridge Energy, LP
5400 Westheimer Ct.
Houston, Texas 77056

CPF 3-2020-5010W

Dear Mr. Koby:

From January 16 through July 20, 2018, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected Enbridge Energy LP's Lakehead hazardous liquid pipeline system assets located in North Dakota, Wisconsin, Michigan, Illinois and Ohio.

As a result of the inspection, it is alleged that you have committed probable violation of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. §195.401 General requirements.

(a) . . .

(b) An operator must make repairs on its pipeline system according to the following requirements:

(1) Non Integrity management repairs. Whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it must correct the condition within a reasonable time. However, if the condition is of such a nature that it presents an immediate hazard to persons or property, the operator may not operate the affected part of the system until it has corrected the unsafe condition.

Enbridge failed to demonstrate how the tank repair issues at the Superior Terminal, which could adversely affect the safe operation of the pipeline system, were corrected in a reasonable time according to in accordance with §195.401(b)(1). With regard to Tank 12 at Enbridge's Superior Terminal, Enbridge did not correct the standing water issue as noted during the company's 2014, 2016, and 2017 annual inspections. Enbridge indicate that construction work results in many areas of ground disturbance, but that a budget submission has been made for its 2019 planning cycle to repair this issue. With regard to Tank 18 at the Superior Terminal, a 2015 external inspection resulted in a recommendation of removal of soil in contact with the tank bottom and regrade for water drainage as noted in report section 4.1. In response, Enbridge indicated that it would be conducting a survey of the tank pads using drone technology in early 2019, and any tank pad corrective actions for Tank 18 that were identified via the survey would be completed soon after.

2. §195.402 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(1) . . .

(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

Enbridge failed to follow its procedural manual for operating and maintaining the relief valves on its pipeline. Specifically, Enbridge did not follow its procedure 03-07-03, which requires adjusting pressure safety valves (PSV) if the device is outside 2% of the design setpoint. Based upon the inspection of records in Enbridge's Maximo database, a PSV (FN-203-PSV-21) was tested on 6-23-17 and found to relieve at 611 psig rather than the design tag setpoint of 654 psig. This reading is approximately 6.6% below the design setpoint. The Enbridge technician indicated he was told not to adjust the PSV setpoint but no explanation was documented, therefore, Enbridge failed to follow its procedure.

3. §195.402 Procedural manual for operations, maintenance, and emergencies.

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§195.404 Maps and Records.

(c) Each operator shall maintain the following records for the periods specified;

(1) . . .

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

§195.428 Overpressure safety devices and overfill protection systems.

(a) Except as provided in paragraph (b) of this section, each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, or in the case of pipelines used to carry highly volatile liquids, at intervals not to exceed 7½ months, but at least twice each calendar year, inspect and test each pressure limiting device, relief valve, pressure regulator, or other item of pressure control equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used.

Enbridge failed to follow its procedures and failed to maintain records of the inspection and test performed on its overpressure protection devices. Enbridge's records of inspection in 2016 and 2017 listed below were deficient as they did not note pressure settings and explanations of actions taken or findings of the devices. Specifically, Enbridge did not record as found and as left pressures when performing inspection and testing of overpressure protection devices as demonstrated in a review of a sample set of records from all units from

2014 to 2017 and as required by Step 10 of Enbridge’s PSV procedure 03-07-03, effective date October 1, 2015.

PSV #	Test Date	Deficiency Noted
FN-201-PSV-18	6-22-17	Enbridge recorded the as found pressure but not the as left as no changes were made.
FN-201-PSV-62	6-20-17	Enbridge did not record as left pressure nor setpoint relief pressure.
FN-201-PSV-62	7-29-16	The record shows a relief pressure of 303 psi and an as left of 219 psi with no explanation for the large discrepancy between as found and as left.

4. §195.404 Maps and records.

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information:

(1)

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

§195.430 Firefighting equipment.

Each operator shall maintain adequate firefighting equipment at each pump station and breakout tank area. The equipment must be-

(a) In proper operating condition at all times;

Enbridge failed to maintain annual inspection records of its fire extinguishers. The following table lists the missing annual fire extinguisher inspection records from a sample set of about 210 extinguisher records out of a total of 1,800 at the Lakehead system. This is based on a review of the Maximo record for the 210 samples and Enbridge’s response to a data request made the week of May 7, 2018, confirming these records are missing. Due to the missing records, it is uncertain whether Enbridge performed the annual inspections of its firefighting equipment as required by its procedure.

Fire Extinguisher No.	Annual Inspection Records Missing			
	<i>(Based on data response from the week of May 7-11, 2018)</i>			
	2014	2015	2016	2017
GC 850 Fire 2		X		
GO 850 fire 7	X	X		
GT 850 fire 5256			X	
IN 850 Fire 14	X	X		

IR 850 fire 3	X			
IR 850 fire 5	X			
IR 850 fire 6	X			
MA 850 fire 4	X	X		
MV 850 fire 07	X			
MV 850 fire 09	X			
NA 850 fire 2	X	X		

5. §195.410 Line markers.

(a) Except as provided in paragraph (b) of this section, each operator shall place and maintain line markers over each buried pipeline in accordance with the following:

(1) Markers must be located at each public road crossing, at each railroad crossing, and in sufficient number along the remainder of each buried line so that its location is accurately known.

(c) Each operator shall provide line marking at locations where the line is above ground in areas that are accessible to the public.

Enbridge failed to maintain line markers at mile post (MP) 26.535 / Toledo Unit along its Line 79. Line 79 is a buried line that traverses directly under populated residential area near MP 26.535. The line markers placed at the public road crossing are not visible to the populated area since the public road along with the markers lie at a lower ground. Additionally, the pipeline markers do not appear to be placed near the populated area and along the remainder of the buried line in order to ensure that its location is accurately known to the public.

6. §195.452 Pipeline integrity management in high consequence areas.

(h) What actions must an operator take to address integrity issues?

(1) . . .

(2) Discovery of condition. Discovery of a condition occurs when an operator has adequate information about the condition to determine that the condition presents a potential threat to the integrity of the pipeline. An operator must promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about a condition to make that determination, unless the operator can demonstrate that the 180-day period is impracticable.

Enbridge did not promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about the condition to make a determination that the condition presents a potential threat to the integrity of the pipeline. Specifically, for Enbridge's Minnesota Unit Line 3, which is located in a high consequence area, in-line inspection tools run between 2014 and 2017 discovered 11 anomalies on the line. Of the 11, two were over the 180 discovery date. One was at 182 days and the other at 194 days. The digs were classed as 180 day digs.

Enbridge indicated that it was developing software to better flag an overage issue pertaining to discovery with an anticipated implementation of October 2018.

7. §195.505 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

- (a) . . .
- (b) Ensure through evaluation that individuals performing covered tasks are qualified;**
- (c) Allow individuals that are not qualified pursuant to this subpart to perform a covered task if directed and observed by an individual that is qualified;**

Enbridge did not follow its written operator qualification program. Specifically, three individuals performed covered task 88 “In-Service Valve Repair” on September 20, 2017, under observation of one qualified individual which was beyond the span-of-control of 1:2 as stated in the Enbridge employee covered task list version 7-28-17. This was discovered as a result of a review of Maximo inspection records and operator data responses.

8. §195.573 What must I do to monitor external corrosion control?

- (a) . . .
- (c) *Rectifiers and other devices.* You must electrically check for proper performance each device in the first column at the frequency stated in the second column.**

Device	Check frequency
Rectifier	At least six times each calendar year, but with intervals not exceeding 2 ½ months
Reverse current switch	
Diode	
Interference bond whose failure would jeopardize structural protection	
Other interference bond	At least once each calendar year, but with intervals not exceeding 15 months.

Enbridge failed to monitor interference bonds for proper performance at least six times per year, but with intervals not exceeding 2 ½ months on critical bonds. Enbridge failed to test the following bond at the required intervals in the Griffith unit:

- **Critical Bond -N Side of 2000:** Enbridge was unable to provide any data or record demonstrating that it performed a reading between December 2016 and June 17, 2017. A critical bond at this location is required to be read six times each year, with intervals not to exceed 2 ½months.

9. **§195.589 What corrosion control information do I have to maintain?**
- (a) **You must maintain current records or maps to show the location of—**
 - (1)
 - (3) **Neighboring structures bonded to cathodic protection systems.**

Enbridge failed to maintain records or maps to show the accurate location of corrosion control bonds. Enbridge had the bonds on Line 62 (Hartford Terminal / Griffith Unit) noted in its records, but these bonds could not be located during OPS' field inspection. Since the Line 62 bonds with TEPPCO and BP were not marked, cathodic protection readings were not taken.

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$209,002 per violation per day the violation persists up to a maximum of \$2,090,022 for a related series of violations. We have reviewed the circumstances and supporting documents involved in this case, and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to correct the item(s) identified in this letter. Failure to do so will result in Enbridge Energy, LP being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 3-2020-5010W**. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

Sincerely,

Gregory A. Ochs
Director, Central Region, OPS
Pipeline and Hazardous Materials Safety Administration

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