NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER

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

November 19, 2020

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

CPF 3-2020-5009

Dear Mr. Koby:

On January 16, 2018 through July 20, 2018, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected Enbridge Energy LP's (Enbridge) Lakehead and Flanagan system assets and records in North Dakota, Wisconsin, Michigan, Illinois, Ohio, Minnesota, Indiana and New York.

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

1. §195.116 Valves.

(a) . . .
(e) Each valve other than a check valve must be equipped with a means for clearly indicating the position of the valve (open, closed, etc.).

Enbridge failed to maintain a means for clearly indicating the position of the valves. Nine of Enbridge's valves noted below were identified during PHMSA's field inspections as not having a clear means of indicating the valve position. Enbridge's design standard EES124, copied in relevant part below, states that the valve stem position indicator shall have a stem protector of heavy, transparent, UV-resistant plastic. The identified protectors were not transparent due smoke coloring or grease preventing clear indication of the valve stem position.

4.11.2

The Vendor shall provide a rising stem position indicator with a stem protector of heavy, transparent, UV-resistant plastic. A 3 mm (0.125 in.) vent hole shall be drilled in the transparent plastic cover on a 45° angle to prevent condensation and water ingress.

Unit	Valve	Comments
Bay City	532.74-6V	Valve stem cover smoke colored, can't see valve stem.
Bay City	536.42-6-V	Valve stem cover smoke colored, can't see valve stem.
Bay City	576.92-6-V	Valve stem cover smoke colored, can't see valve stem.
Bay City	607.62	Valve stem cover smoke colored, can't see valve stem.
Bay City	638.45-6-V	Valve stem cover smoke colored, can't see valve stem.
Bay City	576.82-6-V	Valve stem cover smoke colored, can't see valve stem.
Bay City	6-UD-V-21	Valve stem cover smoke colored, can't see valve stem.
Bay City	SK-6-SV-3	Valve stem cover smoke colored, can't see valve stem.
Bay City	6-TBV-2	Valve stem cover smoke colored, can't see valve stem.

All valves listed above are located on Line 78 between the Illinois border and the Stockbridge, Michigan pump and tank station with the earliest installation date being 2014. This line section is new 36" pipe, which is larger than the old line 6B, so all the valves are 2014 or newer.

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.

Enbridge failed to review its operations and maintenance manual at intervals not exceeding 15 months, but at least once calendar year. During PHMSA's records inspection, the inspector found that Enbridge did not review the following procedures in 2017. Specifically, Enbridge did not review Book 3 08-03-02 through 08-03-21 in calendar year 2017 and was unable to provide documentation of such review that contained was signed and dated as required by Enbridge's procedures

3. §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.
(b) . . . .
(e) Emergencies. The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs;

(1) . . . .
(9) Providing for a post accident review of employee activities to determine whether the procedures were effective in each emergency and taking corrective action where deficiencies are found.

Enbridge failed to conduct a post-accident review of employee activities for one pipeline accident, which resulted in a release of hazardous liquid, that occurred on February 29,2016 on the Lakehead system, that was reported to PHMSA on DOT Form 7000-1 [see §195.54]. During PHMSA's inspection, Enbridge presented its Integrated Contingency Plan (ICP) as the applicable emergency procedures for §195.402(e)(9).

In replies to OPS Central Region on April 20, 2018 and December 5, 2018, Enbridge asserted that "emergency" is not defined in 49 CFR Part 195. However, § 195.402(e)(2) requires an operator to have procedures for responding to "each type emergency, including fire or explosion occurring near or directly involving a pipeline facility, accidental release of hazardous liquid or carbon dioxide from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities." Section 195.402(e)(2)

unambiguously delineates multiple types of emergencies are including, but not limited to, an "accidental release of hazardous liquid." Therefore, Enbridge failed to conduct a post-accident review of employee activities for the one reportable pipeline accident which involved a release of hazardous liquid on Enbridge's Lakehead system, in order to determine whether the emergency procedures were effective and corrective actions were taken where deficiencies were found.

4. §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 inspect and test each overpressure safety device, at intervals not exceeding 15 months, but at least each calendar year, to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity. Specifically, the five (5) pressure safety devices listed below were not inspected and tested within the required time period as identified during PHMSA's records inspection.

Pressure Safety Valve	**In Service Date**	**First Inspection Date**	**Comments**
FN-203-PSV-11	November 2015	June 2017	Missed 2016 inspection
FN-203-PSV-21	November 2015	June 2017	Missed 2016 inspection
FN-203-PSV-31	November 2015	June 2017	Missed 2016 inspection
Transmitter			
SK-207-PT-1BD	1-7-16	4-22-17	Regulatory interval of 15 month was exceeded by 15 days
SK-208-PT-1BS	1-7-16	4-22-17	Regulatory interval of 15 month was exceeded by 15 days

5. §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 did not, 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 (HVLs), at intervals not to exceed 7 ½ months, but at least twice each calendar year, test and inspect each pressure limiting device, relief valve, pressure regulator, or other item of pressure control equipment to determine that it had adequate capacity from the standpoint of capacity for the service in which it was used. Specifically, PHMSA's records inspection found that a total of 39 devices (i.e. HVL pressure relief valve full flow (PRVFF) and non-HVL PRVFF) in the Lakehead system did not have a calculated capacity review to determine them to be adequate from the standpoint of capacity for the service in which it was used from 2016 through 2017 as listed in the table below. A total of 98 capacity checks for adequacy were not performed in accordance with the regulation and Enbridge's procedure, "Pressure Control Valve Capacity and Reliability Assessment." The following table details how these figures were calculated.

System	Type	Number	Require # of Tests or Capacity checks per year	Number of years (2016-2017)	Total
Lakehead	HVL PRVFF	10	2	2	40
Lakehead	Non-HVL PRVFF	29	1	2	58
			Lakehead Total		**98**

6. §195.412 Inspection of rights-of-way and crossings under navigable waters.

(a) Each operator shall, at intervals not exceeding 3 weeks, but at least 26 times each calendar year, inspect the surface conditions on or adjacent to each pipeline right-of-way. Methods of inspection include walking, driving, flying or other appropriate means of traversing the right-of-way.

Enbridge failed to conduct an effective inspection of the surface conditions on or adjacent to each pipeline right-of-way. Specifically, Enbridge used aerial patrol inspection methods, but at the time of the inspection, the locations noted below were found with vegetation overgrowth such that surface of the right-of-way was not visible by aerial patrol.[1] The following three locations on Enbridges' pipeline right-of-way had excess growth and tree canopy blocking aerial visibility of the surface conditions:

Unit	MP	Description	Comments
Fort Atkinson (Wisconsin)	360.903	At MP 360.903 there was an issue with ROW Clearance	Dense cover restricting aerial view of ground on ROW
Line 5 (Michigan)	1429.289	ROW needs clearing	Aerial view of ground restricted by foliage.
Line 5 (Michigan)	1436.91	West side of this exposure needs ROW clearing	Dense cover for 100 feet each side of this exposure.

7. §195.432 Inspection of in-service breakout tanks.

(a) . . .
(b) Each operator must inspect the physical integrity of in-service atmospheric and low-pressure steel above-ground breakout tanks according to API Std 653 (except section 6.4.3, Alternative Internal Inspection Interval) (incorporated by reference, see §195.3). However, if structural conditions prevent access to the tank bottom, its integrity may be assessed according to a plan included in the operations and maintenance manual under §195.402(c)(3). The risk- based internal inspection procedures in API Std 653, section 6.4.3 cannot be used to determine the internal inspection interval.

Section 6 of API Standard 653 3rd Edition, December 2001

6.3.1 Routine In-Service Inspections
6.3.1.1 The external condition of the tank shall be monitored by close visual inspection from the ground on a routine basis. This inspection may be done by owner/operator personnel, and can be done by other than authorized inspectors as defined in 3.6. Personnel performing this inspection should be knowledgeable of the storage facility operations, the tank, and the characteristics of the product stored.

[1] Photographs illustrating the overgrowth on Enbridge's rights-of-way are found in Exhibit D to the Pipeline Safety Violation Report.

6.3.1.2 The interval of such inspections shall be consistent with conditions at the particular site, but shall not exceed one month.
6.3.1.3 This routine in-service inspection shall include a visual inspection of the tank's exterior surfaces. Evidence of leaks; shell distortions; signs of settlement; corrosion; and condition of the foundation, paint coatings, insulation systems, and appurtenances should be documented for follow-up action by an authorized inspector.

Enbridge violated 49 C.F.R. § 195.432(b) by failing to adequately inspect the physical integrity of in-service atmospheric and low-pressure steel above-ground breakout tanks according to API Std. 653 (except section 6.4.3, Alternative Internal Inspection Interval). Specifically, Enbridge's annual inspection records documented deficiencies on three above ground breakout tanks in Superior, Wisconsin that should have been documented and addressed in the company's monthly pursuant to Enbridge Procedure 09-02-02.

Enbridge Procedure 09-02-02, dated 05-01-2014, outlines the steps that the company must take to comply with API Standard 653 and 49 C.F.R. § 195.432. Routine monthly inspections must identify the following issues on breakout tanks:

- Leaks on shell, flanges and mixers
- Shell distortions, settlement or heaving, active corrosion, oil or water in tank or on roof
- Foundation condition, paint coatings, floating roof, insulation and appurtenances

During its annual inspection, Enbridge identified issues with three breakout tanks, as described in the table below, that should have been addressed in the company's monthly inspections but were not. Enbridge informed PHMSA that further training maybe needed to correct this matter.

Superior Unit Inspection Item	Tank 10 July 2016	Tank 1 August 2016	Tank 12 July 2016
Annual Note:	Peeling paint on pontoon deck, corrosion on roof leg sleeves, ground shunts not in contact with shell, vac breaker leak, bent stair treads.	Ring wall cracks and spalls, roof corrosion, bent stairs on roof, ground shunts not in contact with shell, corroded platform stair.	Water pooling at clean out area on E & N sides, cavity under roof drain valve, shell paint peeling, damaged stair grating.
Monthly Required API 653:			
Leaks			
Shell Distortions			
Settlement			
Corrosion	Missing	Missing	Missing
Foundation		Missing	Missing
Coatings	Missing		
Insulation			
Appurtenances	Missing	Missing	Missing
Monthly Required 09-02-02 Procedure:			
Above items include roof			

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

(a) . . .
(e) Corrective action. You must correct any identified deficiency in corrosion control as required by § 195.401(b). However, if the deficiency involves a pipeline in an integrity management program under § 195.452, you must correct the deficiency as required by § 195.452(h)

§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 did not correct identified deficiencies in corrosion control within a reasonable time as required by § 195.401(b). PHMSA's records inspection identified that Enbridge did not correct identified cathodic protection deficiencies to bring structure potentials up to the level of "target potentials" as defined by the operator within a reasonable time. According to Enbridge's procedures Book 3: Performing CP Surveys - Annual – Sub # 08-03-20, discovered deficiencies should be corrected prior to the next scheduled inspection. Deficiencies were found at the following five locations that were not corrected prior to the next inspection:

Unit	MilePost	Description	Target On Voltage	2015 On Reading	2016 On Reading
Bay City	678.6230	C679 Howell Facilities CP Valve 6-SDV-1	-1.206	-.769	-1.18
Bay City	1628.635	Line 5 Mainline CP	-1.443	-1.406	-1.427
Bay City	1734.301	Line 5 Mainline CP	-1.047	-.968	-.958
Escanaba	1571.481	LINE 5 - Mainline CP – (Valve 1571.48-5-V)	-1.533	-.924	-1.084
Griffith	341.69		-1.332	-1.236	-1.277

9. §195.581 Which pipelines must I protect against atmospheric corrosion and what coating material may I use?

(a) You must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.
(b) Coating material must be suitable for the prevention of atmospheric corrosion.
(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, you need not protect against atmospheric corrosion any pipeline for which you demonstrate by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will-

(1) Only be a light surface oxide; or
(2) Not affect the safe operation of the pipeline before the next scheduled inspection.

Enbridge failed to provide suitable coating on its pipeline to protect against atmospheric corrosion, as required by 49 C.F.R. § 195.581. Enbridge did not maintain a suitable coating at the following 8 exposed pipe locations identified during PHMSA's field inspection as shown in the field inspection photographs in Exhibit E of the Pipeline Safety Violation Report.

Unit	Pipeline	Location Description 1
MN	1	MP1082
MN	3	MP820
MN	2	MP886.953
MN	3	MP973.7
MN	2	MP1013
Superior	1	MP 1090.22
Escanaba	5	MP 1456.48
Griffith	62	MP 66.98

10. §195.583 What must I do to monitor atmospheric corrosion control?

(a) You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If the pipeline is located:	Then the frequency of inspection is:
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months.
Offshore	At least once each calendar year, but with intervals not exceeding 15 months.

(b) During inspections you must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.
(c) If you find atmospheric corrosion during an inspection, you must provide protection against the corrosion as required by §195.581.

§195.581 Which pipelines must I protect against atmospheric corrosion and what coating material may I use?

(a) You must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.
(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, you need not protect against atmospheric corrosion any pipeline for which you

demonstrate by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will-

(1) Only be a light surface oxide; or
(2) Not affect the safe operation of the pipeline before the next scheduled inspection.

Enbridge failed to protect its pipeline against atmospheric corrosion, in violation of 49 C.F.R. § 195.581. Specifically, Enbridge did not maintain coating at soil-air interfaces at the following 7 locations identified during PHMSA's field inspection as shown in the field inspection photographs in Exhibit F of the Pipeline Safety Violation Report.

Unit	Pipeline	Location Description 1
MN	4	MP1065.7
MN	1	MP915.141
MN	2	MP915.141
MN	3	MP913
MN	2, 1, 3	MP 914
Fort Atkinson	6	MP 82
Fort Atkinson	6	MP 98

Proposed Civil Penalty

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 documentation involved in the above probable violation(s) and has recommended that you be preliminarily assessed a civil penalty of $122,100 as follows:

Item number	PENALTY
1	$25,200
2	$18,900
4	$20,300
5	$37,000
8	$20,700

Proposed Compliance Order

With respect to items 1, 3, 6, 7, 9, 10 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Enbridge Energy, LP. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Enforcement Proceedings*. Please refer to this document and note the response options. All material you submit in response to this enforcement action may be 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).

Following the receipt of this Notice, you have 30 days to submit written comments, or request a hearing under 49 CFR § 190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order. If you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from receipt of this Notice. This period may be extended by written request for good cause.

In your correspondence on this matter, please refer to **CPF 3-2020-5009** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

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

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Enforcement Proceedings

CC: Mr. Dave Stafford, Manager, US Pipeline Compliance, 119 N. 25th Street East, Superior, WI 54880 (david.stafford@enbridge.com)

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Enbridge Energy, LP (Enbridge) a Compliance Order incorporating the following remedial requirements to ensure the compliance of Enbridge with the pipeline safety regulations:

1. In regard to Item Number 1 of the Notice pertaining to maintaining a means for clearly indicating the position of the valves, Enbridge must provide a means of clearly indicating the positon of the nine valves and document this effort.

2. In regard to Item Number 3 of the Notice pertaining to providing for a post-accident review of employee activities, Enbridge must conduct and document a post-accident review of employee activities on the pipeline accident that occurred on February 29, 2016. on the Lakehead system, that were reported to PHMSA on DOT Form 7000-1, to determine whether the procedures were effective in each emergency and taking corrective action where deficiencies are found. This review and documentation must include all of the elements in §195.402(e).

3. In regard to Item Number 6 of the Notice pertaining to clearing rights-of-way (ROW) to allow for inspection, Enbridge must clear the three ROW areas to allow aerial patrol and document this effort, or must patrol the ROW by another method and document the effort.

4. In regard to Item Number 7 of the Notice pertaining to inspection of breakout tanks, Enbridge must train its employees on procedures for properly conducting monthly breakout tank inspections. Documentation of this training must also be made.

5. In regard to Item 9 of the Notice pertaining to suitable atmospheric coating on the pipeline, Enbridge must remediate the coating at the 8 locations identified and document the action taken.

6. In regard to Item 10 of the Notice pertaining to maintaining coating at soil-to-air interfaces, Enbridge must remediate the coating at the 7 locations identified and document the action taken.

7. Enbridge must complete the compliance items 1 thought 6 above within 180 days of receiving the Final Order and provide documentation to Greg Ochs, Director, Central Region, OPS, Pipeline and Hazardous Materials Safety Administration.

8. It is requested (not mandated) that Enbridge maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Greg Ochs, Director, Central Region, OPS, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1)

total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.