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January 19, 2021

Via Email

Gregory Ochs
PHMSA Central Region, OPS
901 Locust Street, Suite 462
Kansas City, MO 64106
gregory.ochs@dot.gov

Re: Enbridge Energy, LP, CPF 3-2020-5008M

Dear Mr. Ochs:

Enbridge Energy, LP ("Enbridge") responds to the above-referenced Notice of Amendment ("NOA") issued by the Pipeline and Hazardous Materials Safety Administration ("PHMSA"). PHMSA granted Enbridge an extension of time, to and including January 19, 2021, to respond.

In support of its response, Enbridge attaches the following documents:

- Exhibit NOA-3 – Revised job plan, B6 MP10010 - Pressure Relief Valve Inspection-Non-Surge Relief
- Exhibit NOA-4 – (a)B6 EP10070 – Level Transmitter Inspection (Combined), and (b)B6 EP10072 – Level Switch Inspection (Combined).
- Exhibit NOA-6 – B3_08-03-21 Performing CP Surveys – Close Interval
- Exhibit NOA-7 – As set forth below, Enbridge seeks an extension of time to complete the amendments to this procedure.
- Exhibit NOA-8 – B1_02-02-03 Incident Investigation

Enbridge responds to each Item in the NOA as follows:

1. §195.222 Welders and welding operators: Qualification of welders and welding operators.

(a) Each welder or welding operator must be qualified in accordance with section 6, section 12, Appendix A or Appendix B of API Std 1104 (incorporated by reference, see § 195.3), or section IX of the ASME Boiler and Pressure Vessel Code (ASME BPVC), (incorporated by reference, see § 195.3) except that a welder or welding operator qualified under an earlier edition than listed in § 195.3, may weld but may not requalify under that earlier edition.

Item 1 Allegation: Enbridge's procedures were inadequate because an incorrect version of Section IX of ASME Boiler and Pressure Vessel Code (ASME BPVC) was referenced. Specifically, under Book 4 "Welding Tests" - Subject No. 01-02-02, the 2011 edition of ASME BPVC was referenced in Table 2 (Welder Performance Qualification Table-USA) as the applicable edition. However, 49 CFR §195.3 incorporates by reference the 2007 edition of ASME BPVC. Enbridge has submitted procedures that satisfactorily addressed this item. No further action is required.

Enbridge Response: PHMSA acknowledged that Enbridge completed this amendment and provided documentation to PHMSA.

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

(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:

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

Item 2 Allegation: Enbridge's Operation and Maintenance (O&M) manual is inadequate because procedure "09-03-02 Removing Water/Snow from Tank Roofs" does not reflect the practice that is performed in the field. The Cushing Tank Farm facility keeps all tank roof drains open at all times, including at night and on weekends. The procedure says the tank roof drains must be checked every 30 minutes when open and that the tank roof drains and firewall drains cannot be open at the same time or at night. Enbridge must amend its procedure to reflect the practice of keeping all tank roof drains open at all times in its O&M manual.

Enbridge Response: Enbridge states that the practice of leaving tank roof drains open at Enbridge's Cushing terminal was discontinued. Cushing terminal is now aligned with other Enbridge locations. Roof drains and containment drains are no longer open at the same time. Therefore, Enbridge states that an amendment to this procedure is no longer required.

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

(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:

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

§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.

Item 3 Allegation: Enbridge's procedure 03-07-03 in its O&M manual is inadequate because it does not require an inspection of the maintenance work order history to determine if a pressure safety valve (PSV) is adequate from the standpoint of reliability of operation for the service in which is it used. Specifically, a review of the maintenance work order history of a PSV would assist in determining whether it is repeatedly drifting off setpoint and whether it should be replaced rather than adjusted. Additionally, procedure 03-07-03 does not require an inspection of engineering setpoints in addition to nameplate setpoints to verify correct setpoint value before adjusting valve.

Enbridge Response: In February 2019, Enbridge replaced the procedure 03-07-03 in the O&M manual with job plan MP10010 Pressure Relief Valve Inspection-Non-Surge Relief, and then revised the job plan again on January 4, 2021. The job plan included multiple edits. A copy is included with this response, identified as Exhibit NOA-3. Enbridge highlights the key change(not inclusive) to the current version of the job plan that address the issues raised in the NOA.

- *Task 30 – Task to verify nameplate along with make, model and serial number to ensure matches Maximo.*
- *Task 90 - Step was added to verify set pressure as per the pressure relief valve data sheet.*
- *If data sheet is not available or does not match P&ID contact PETH (Engineering Group) for verification of correct set pressure.*
- *Task 140 – Leak test was added and valve must hold 90% of set pressure for 10 seconds.*
- *Task 160 – Step was added to complete test 3 consecutive tests to achieve 90% - 103% of relief set-point.*
- *Task 195 – Steps to calibrate PSV seat test or if 3 repeated tests is not achieved. Then to confirm 3 consecutive tests after calibration.*
- *Results of the tests are now recorded and documented; the leak test and the 3 repeated set pressure tests must be documented in the job plan to ensure the device is reliably functioning and is repeatable.*
- *A work-order will be generated and the PSV will be replaced if the requirements are unable to be met. The device replacement will be documented.*

The new job plan includes changes that will ensure these valves are adequate from the standpoint of reliability.

4. §195.402 Procedural manual for operations, maintenance, and emergencies.

(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:

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

§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.

(d) After October 2, 2000, the requirements of paragraphs (a) and (b) of this section for inspection and testing of pressure control equipment apply to the inspection and testing of overfill protection systems

Item 4 Allegation: Enbridge's procedures are inadequate because the job plan (#EP2335Q) associated with performing "level & overfill protection devices" for aboveground tanks cites the incorrect subsection of the code. The job plan cites §195.428(c) rather than §195.428(a) and (d) for the required inspection intervals for overfill protection systems. Enbridge must amend its procedures to cite to the correct subsection of the code.

Enbridge Response: Enbridge has developed separate job plans for level switches and level transmitters, which contain the proper code references. Enbridge completed these amendments to the job plans and copies of the revised job plans are included in this submission, identified as NOA-4(a) and (b).

5. §195.402 Procedural manual for operations, maintenance, and emergencies.

(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:

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

§195.555 What are the qualifications for supervisors?

You must require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under § 195.402(c)(3) for which they are responsible for insuring compliance.

Item 5 Allegation: Enbridge's procedures were inadequate because they do not have a process to require and verify that supervisors maintain a thorough knowledge of corrosion control procedures for which they are responsible for insuring compliance in accordance with §195.555. During the inspection, PHMSA discovered that there were no procedures in place addressing qualifications for corrosion control supervisors. Enbridge has submitted procedures that satisfactorily addressed this item. No further action is required.

Enbridge Response: PHMSA acknowledged that Enbridge completed this amendment and provided documentation to PHMSA.

6. §195.402 Procedural manual for operations, maintenance, and emergencies.

(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:

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

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

(a) Protected pipelines. You must do the following to determine whether cathodic protection required by this subpart complies with § 195.571:

(1) Identify not more than 2 years after cathodic protection is installed, the circumstances in which a close-interval survey or comparable technology is practicable and necessary to accomplish the objectives of paragraph 10.1.1.3 of NACE SP 0169 (incorporated by reference, see § 195.3).

Item 6 Allegation: Enbridge's procedure D04-101-2015 is inadequate because it only states Close Interval Survey (CIS) is required within 2 years of application of cathodic protection (CP) on newly constructed pipelines. However, the procedure does not indicate when the next CIS would be required. Enbridge stated during the inspection that after the initial CIS is complete, it uses in-line inspection data to determine when the next CIS is required. Enbridge must amend its procedure to address when and how a CIS is determined to be required.

*Enbridge Response: Enbridge procedure D04-101-2015 (Revised version now D04-101-2020) is the engineering standard that provides the requirements for the design of piping in contact with the soil or water and requires an **initial** close interval survey of newly constructed pipelines. This standard specifically provides design requirements (it is not an Operations and Maintenance standard); therefore, does not provide any procedure for when the next CIS would be required. Enbridge's Book 3 08-03-21, included as Exhibit NOA-6, has been revised to describe how **subsequent** close interval surveys will be scheduled.*

7. §195.402 Procedural manual for operations, maintenance, and emergencies.

(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:

(13) Periodically reviewing the work done by operator personnel to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.

Item 7 Allegation: Enbridge's O&M manual is inadequate because procedure 05-02-01 Procedure and Training Effectiveness insufficiently addresses periodically reviewing the work done by the operator's personnel to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found. Specifically, Enbridge's procedures does not do the following:

1) The procedure does not define periodically or clearly state how often the effectiveness review will take place.
2) The procedure does not clearly indicate who will perform the effectiveness review. Enbridge uses Technical Committees for determining procedure effectiveness but the Committees are also tasked with performing annual reviews using procedure 07-02-02 OMM Annual Reviews. A review of the records showed that the focus of the Technical Committee meetings is on annual reviews which is not an acceptable method of determining procedure effectiveness pursuant to §195.402(c)(13).
3) Enbridge states that it encourages employees to submit proposed changes through the change management site, however, this is not included in the procedure.
4) There are no documentation requirements mentioned within the procedure.
5) The procedure fails to detail clear guidelines on how a review of work done by operator personnel to determine the effectiveness of the procedures should be done. A list of possible methods of review are shown on the procedure but some of the methods listed would not constitute an acceptable effectiveness review.

Enbridge must amend its procedures to set forth a process that sufficiently addresses the requirements of §195.402(c)(13), as well as the inadequacies listed above.

Enbridge Response: Enbridge is revising its Book 1, Subject 05-02-01 procedure titled "Procedure Effectiveness." The revision will specify which procedures must be reviewed, how the reviews will be scheduled, the responsibilities of each participant in the review, acceptable methods of review, and record keeping requirements. The revised process will satisfy the intent of 195.402(c)(13) and this NOA.

We plan to review approximately one-third of the procedures each year and expect to complete the first full cycle of procedure reviews within three years of the implementation date of this revised procedure. Enbridge, however, requires 180 days to implement the revised procedure, as this planned revision will change the scope of how Enbridge will perform effectiveness reviews of all operations, maintenance, and emergency response procedures.

8. §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.

(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;

(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.

Item 8 Allegation: Enbridge's procedures are inadequate regarding post accident review of employee activities to determine whether the procedures were effective in each emergency and taking corrective action where deficiencies are found. During PHMSA's inspection, Enbridge presented its Integrated Contingency Plan (ICP) as the applicable 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. Enbridge used the Occupational Safety and Health Administration's (OSHA) definition of an *emergency response* per 29 CFR §1910.120(a)(3) for when a post accident review is to be performed.

However, the definition used by Enbridge does not correspond to §195.402(e)(2) which requires an operator to have procedures for: "Prompt and effective response to a notice of 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." Multiple types of emergencies are described in §195.402(e)(2), and is not limited to spills or responses of a certain size. Therefore, Enbridge must amend its procedures for §195.402(e)(9) so that a post accident review of employee activities is performed after emergencies occur, as described in 49 CFR Part 195, to determine if the procedures were effective and taking corrective action where deficiencies are found.

Enbridge Response: Enbridge is revising its Book 1, 02-02-03 Incident Investigation procedure. The revised version of this procedure integrates a new step requiring post-accident effectiveness review of procedures that were followed during any response to a pipeline emergency. A copy of the draft revised procedure is attached as Exhibit NOA-8.

9. §195.452 Pipeline integrity management in high consequence areas.

(a) *What program and practices must operators use to manage pipeline integrity?* Each operator of a pipeline covered by this section must:

(1) Develop a written integrity management program that addresses the risks on each segment of pipeline in the first column of the following table not later than the date in the second column:

Pipeline	Date
Category 1	March 31, 2002.
Category 2	February 18, 2003.
Category 3	1 year after the date the pipeline begins operation.

(5) Implement and follow the program.

Item 9 Allegation: Enbridge's IMP is inadequate because it its employees no longer use the procedures library referenced in the plan. Per Enbridge's Risk Management personnel, Enbridge no longer uses or maintains the ORM Procedures Library referenced in several of its IMP risk procedures. This change occurred with Enbridge's shift to a company-wide Governance Documents Library. Now a list of the data sources for each of the different variables used in the risk model is maintained in an Excel file. Enbridge must update all appropriate IMP risk procedures to account for the new system.

Enbridge Response: Enbridge notes that the IMP risk procedures referenced in this Item are obsolete. The High Consequence Area Management Plan, which previously referenced the ORM Procedures Library, has been fully retired and is no longer in use as of July 2019. There are no remaining references to the ORM Procedures Library in any HCA procedural documents. The High Consequence Area Identification Process replaces the procedures that were retired.

Should you have any questions or require any additional information regarding Enbridge's responses to any of the Items in this NOA, please do not hesitate to contact me.

Sincerely,

Dave Stafford
Manager, US Pipeline Compliance

Cc: Michael Koby