



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, D.C. 20590

SEP -7 2012

Mr. Richard Adams
Vice President, U.S. Operations
Enbridge Energy, Limited Partnership
City Center Office
1409 Hammond, Avenue
Superior, WI 54880-5247

CPF 3-2012-5013

Dear Mr. Adams:

Enclosed please find the Final Order issued in the above-referenced case. It makes findings of violation of PHMSA regulations and assesses an administrative civil penalty of \$3,699,200. This is to acknowledge receipt of payment of the full penalty amount, by wire transfer, dated August 10, 2012. This enforcement action is now closed. Service of the Final Order by certified mail is deemed effective upon the date of mailing, or as otherwise provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. David Coburn, Esq., Counsel for Respondent,
Steptoe & Johnson LLP, 1330 Connecticut Avenue, NW, Washington, DC 20036-1795
Mr. David Barrett, Director, Central Region, OPS
Mr. Alan Mayberry, Deputy Associate Administrator for Field Operations, OPS

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

_____))
In the Matter of)

Enbridge Energy, Limited Partnership,)

CPF No. 3-2012-5013

Respondent.)
_____)

FINAL ORDER

Beginning on July 26, 2010, pursuant to 49 U.S.C. § 60117, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), initiated an investigation of an accident involving the Line 6B pipeline system operated by Enbridge Energy, Limited Partnership (Enbridge or Respondent). Respondent is a subsidiary of Enbridge, Inc., a Canadian company, and owns and operates approximately 17,700 miles of pipeline transporting crude oil and natural gas in the Midwest. Line 6B is a part of Respondent's Lakehead Pipeline System.¹

The investigation followed a failure that occurred on Enbridge's 30-inch diameter Line 6B pipeline near Marshall, Michigan, on July 25, 2010, and that ultimately resulted in the release of more than 20,000 bbls of crude oil (Release).² The pipeline ruptured at approximately 17:58 EDT (all times cited below are Eastern Daylight Time, unless otherwise noted) on July 25, 2010, approximately 0.6 miles downstream of the company's Marshall pumping station, while its Control Center Operations (CCO) in Edmonton, Alberta (Canada), was in the process of executing a scheduled 10-hour shutdown of the pipeline (Scheduled Shutdown), as more fully detailed in the Notice.

The investigation revealed a number of probable violations of regulations promulgated under the federal Pipeline Safety Laws. As a result, the Director, Central Region, OPS (Director), issued to Respondent, by letter dated July 2, 2012, a Notice of Probable Violation and Proposed Civil

¹ SEC Form 10-K, Enbridge Energy Partners, LP, February 2011, at 6. Respondent also files annual reports with PHMSA under the name Enbridge Energy, Limited Partnership, which is a subsidiary of Enbridge Energy Partners, LP.

² On July 28, 2010, PHMSA issued a Corrective Action Order (CAO) [CPF No. 3-2010-5008H] to Enbridge, finding that Line 6B would be hazardous to life, property and the environment unless Enbridge took certain corrective actions. Among other things, the CAO required a pressure reduction on the re-started line; testing and evaluation of the failed pipe; submission of a plan for verification of pipeline integrity; and integration of various assessment information to ensure the ongoing safe operation of the pipeline, considering all risk factors. That CAO is still open.

Penalty. In accordance with 49 C.F.R. § 190.207, it proposed finding that Enbridge had committed various violations of 49 C.F.R. Part 195 and proposed assessing an administrative civil penalty of \$3,699,200 for the alleged violations. On July 5, 2012, PHMSA issued a corrected Notice of Probable Violation and Proposed Civil Penalty (Notice) to address several typographical errors in the original letter. The Notice advised Enbridge that it had a right to contest the allegations.

Enbridge submitted a preliminary response by letter on July 6, 2012. On August 10, 2012, the company paid the proposed administrative civil penalty of \$3,699,200, as provided under 49 C.F.R. § 190.209(a)(1). The company also submitted a formal response by letter of the same date (Response). The Response stated that the company was not contesting the proposed penalty, but indicated that Enbridge took “issue with many of the allegations set forth in the NOPV” and “respectfully request[ed] that PHMSA take this [letter] into consideration.”³ Under 49 C.F.R. § 190.209(a)(1), however, payment of the penalty serves to close the case with prejudice to Respondent. Therefore, the additional information provided and the defenses asserted by Respondent are neither discussed nor considered in this Order. The findings and conclusions set forth below are based entirely on the information referenced in the Notice and discussed in this Order, insofar as such information relates to the specific regulatory violations alleged in the Notice.

FINDINGS OF VIOLATION

In its Response, Enbridge, by counsel, did not contest the penalties proposed in the Notice for the alleged violations of 49 C.F.R. Part 195, as follows:

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(h)(1)-(2), which states, in relevant part:

§ 195.452 Pipeline integrity management in high consequence areas.⁴

(a) . . .

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

(1) *General requirements.* An operator must take prompt action to address all anomalous conditions the operator discovers through the integrity assessment or information analysis. In addressing all conditions, an operator must evaluate all anomalous conditions and remediate those that could reduce a pipeline’s integrity . . .

(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

³ Response at 1.

⁴ High Consequence Areas (HCAs) are defined as high population areas, other populated areas, unusually sensitive areas, and commercially navigable waterways. *See* 49 C.F.R. § 195.450.

operator can demonstrate that the 180-day period is impracticable.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(h)(1)-(2) by failing to promptly obtain sufficient information about anomalous conditions on Line 6B to make a determination that the conditions presented a potential threat to the integrity of the pipeline and to take prompt action to address those conditions that could reduce the pipeline's integrity. Specifically, the Notice alleged that Enbridge failed, within 180 days after receiving a contractor's report on a high-resolution MFL integrity assessment that had been conducted on Line 6B on October 13, 2007, to obtain sufficient information about the anomalies noted in the report to determine whether they posed a potential threat to the integrity of the pipeline. PHMSA asserted that the 180-day deadline was April 10, 2008, but that Enbridge failed to implement pressure restrictions until July 17, 2009, approximately 462 days after the 180-day deadline.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.452(h)(1)-(2) by failing to promptly obtain sufficient information about anomalous conditions on Line 6B to make a determination that the conditions presented a potential threat to the integrity of the pipeline and to take prompt action to address such conditions.

Item 2: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(h)(4), which states, in relevant part:

§ 195.452 Pipeline integrity management in high consequence areas.

- (a) . . .
- (h) *What actions must an operator take to address integrity issues?*
- (1) . . .
- (4) *Special requirements for scheduling remediation – (i) . . .*
- (iii) *180-day conditions.* Except for conditions listed in paragraph (h)(4)(i) or (ii) of this section, an operator must schedule evaluation and remediation of the following within 180 days of discovery of the condition: . . .
 - (H) Corrosion of or along a longitudinal seam weld. . . .
 - (iv) *Other conditions.* In addition to the conditions listed in paragraphs (h)(4)(i) through (iii) of this section, an operator must evaluate any condition identified by an integrity assessment or information analysis that could impair the integrity of the pipeline, and as appropriate, schedule the condition for remediation. Appendix C of this part contains guidance concerning other conditions that an operator should evaluate.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(h)(4) by failing to properly schedule the evaluation and remediation of certain anomalous conditions that were required to be remediated within 180 days of their discovery. Specifically, it alleged that, beginning with a 2004 Ultra-Sonic Wall Measurement (USWM) in-line inspection (ILI), Enbridge did not schedule remediation of corrosion anomalies involving the longitudinal weld seam of pipe joint #217720 within 180 days of discovery of the conditions, as required by § 195.452(h)(4)(iii)(H).⁵

⁵ Pipeline Safety Violation Report (July 2, 2012) (Violation Report), Exhibit B.

The Notice further alleged that Enbridge failed to remediate other crack-like anomalies on the same pipe joint #217720, as required by § 195.452(h)(4)(iii)(H) and in accordance with the guidance set forth in Part 195, Appendix C(VII)(D) for scheduling remediation of anomalous conditions.⁶ According to the Notice, assessments of this pipe joint had revealed corrosion or crack-like anomalies that were longitudinal in orientation but Enbridge had failed to select the joint for excavation. This same joint ultimately ruptured in service on July 25, 2012, resulting in a release of crude oil.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.452(h)(4) by failing to properly schedule the evaluation and remediation of certain anomalous conditions on Line 6B that had to be remediated within 180 days of their discovery.

Item 3: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(1) and (2)(i)-(iv), which state, in relevant part:

§ 195.452 Pipeline integrity management in high consequence areas.

(a) . . .

(i) *What preventive and mitigative measures must an operator take to protect the high consequence area?* - (1) *General requirements.* An operator must take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. These measures include conducting a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection. . .

(2) *Risk analysis criteria.* In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, including, but not limited to:

(i) Terrain surrounding the pipeline segment, including drainage systems such as small streams and other smaller waterways that could act as a conduit to the high consequence area;

(ii) Elevation profile;

(iii) Characteristics of the product transported;

(iv) Amount of product that could be released;

⁶ Appendix C(VII) states, in relevant part:

VII. Conditions that may impair a pipeline's integrity.

Section 195.452(h) requires an operator to evaluate and remediate all pipeline integrity issues raised by the integrity assessment or information analysis. An operator must develop a schedule that prioritizes conditions discovered on the pipeline for evaluation and remediation. The following are some examples of conditions that an operator should schedule for evaluation and remediation:

A . . .

D. An anomaly longitudinal on orientation....

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(1) and (2)(i-iv) by failing to perform a proper risk analysis to identify the need for additional preventive and mitigative measures to protect HCAs. Specifically, the Notice alleged that in preparing its risk analysis, Enbridge failed to consider all relevant risk factors associated with the determination of the amount of product that could potentially be released from a rupture on Line 6B.⁷

PHMSA asserted that Enbridge's risk analysis process assumed a pipeline rupture of this magnitude would be identified by instrumentation (SCADA and Leak Detection System) within five minutes and that remotely-operated valves on either side of the rupture would be closed within an additional three minutes.⁸ The Notice alleged that the company's risk analysis should have considered that the amount of product that could potentially be released would be impacted by different operating scenarios, including transient conditions such as start-ups and shutdowns or personnel response to abnormal operating conditions.⁹

Prior to the Failure, Enbridge estimated the worst-case scenario for an oil release at the Mile Post (MP) 608 location would be 1,670 bbls initial volume out, plus 1,938 bbls stabilization loss (drain down), or a total release of 3,608 bbls.¹⁰ The Notice alleged that the Failure demonstrated that Enbridge had not properly recognized the risk associated with the actual release scenario, as the isolation valves did not close until approximately 17 hours after the release occurred. It further alleged that at least 20,000 bbls were actually released, 16,431 bbls more than Enbridge's worst-case scenario.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.452(i)(1) and (2)(i)-(iv) by failing to perform a proper risk analysis to identify the need for additional preventive and mitigative measures to protect HCAs.

Item 4: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(j)(2), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a) . . .

(j) *What is a continual process of evaluation and assessment to maintain a pipeline's integrity?* - (1) *General.* After completing the baseline integrity assessment, an operator must continue to assess the line pipe at specified intervals and periodically evaluate the integrity of each pipeline segment that could affect a high consequence area....

(2) *Evaluation.* An operator must conduct a periodic evaluation as frequently as needed to assure pipeline integrity. An operator must base the

⁷ Violation Report, Exhibit B.

⁸ *Id.*

⁹ Violation Report, Exhibits B and C.

¹⁰ Violation Report, Exhibit C.

frequency of evaluation on risk factors specific to its pipeline, including the factors specified in paragraph (e) of this section. The evaluation must consider the results of the baseline and periodic integrity assessments, information analysis (paragraph (g) of this section), and decisions about remediation, and preventive and mitigative actions (paragraphs (h) and (i) of this section).

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(j)(2) by failing to conduct periodic evaluations as frequently as needed to assure pipeline integrity, based upon an analysis of risk factors specific to its pipeline. Specifically, the Notice alleged that Enbridge did not properly consider the results of corrosion and cracking assessments it had performed, nor did it integrate the information from these assessments to properly ensure overall pipeline integrity.

According to the Notice, the PHMSA investigation, witness interviews, and a review of prior ILI assessments of Line 6B (including 2004 USWM, 2005 USCD, 2007 MFL, and 2009 USWM assessments) revealed that Enbridge had a long history of performing integrity assessments using ILI tools, but that those assessment results had been evaluated independently and not properly integrated in a fashion that would ensure pipeline integrity.¹¹

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.452(j)(2) by failing to conduct periodic evaluations as frequently as needed to assure pipeline integrity, based upon an analysis of risk factors specific to its pipeline.

Item 5: The Notice alleged that Respondent violated 49 C.F.R. § 195.401(b), which states:

§ 195.401 General requirements.

(a) . . .

(b) Whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it shall correct it 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.¹²

The Notice alleged that Respondent violated 49 C.F.R. § 195.401(b) by failing to correct, within a reasonable time after discovery, conditions that could adversely affect the safe operation of its pipeline. Specifically, the Notice alleged that Enbridge failed to correct conditions that it discovered as a result of a series of SCADA/instrumentation alarms and events occurring within seconds and minutes of the Failure, including a 5-minute MBS (Material Balance System) alarm, a Unit Shutdown on Low Suction Pressure, Low Pressure Alarms, and an abnormal and abrupt pressure drop (to 0 psig) at the Marshall pumping station.

PHMSA asserted that the SCADA/instrumentation alarms and events indicated conditions that

¹¹ Violation Report, Exhibits B, C and D.

¹² Section 195.401 was amended subsequent to the date of the Failure, effective August 11, 2010.

could adversely affect the safe operation of the pipeline unless and until they were determined to have been the result of known conditions that did not affect the safe operation of the pipeline. The Notice alleged that Enbridge failed to investigate and mitigate the effects of such unsafe conditions until approximately 17 hours after their discovery.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.401(b) by failing to correct, within a reasonable time following discovery, conditions that could adversely affect the safe operation of its pipeline.

Item 6: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3-4), which states in relevant part:

§ 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

(d) *Abnormal operation.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

- (1) Responding to, investigating, and correcting the cause of:
 - (i) Unintended closure of valves or shutdowns;
 - (ii) Increase or decrease in pressure or flow rate outside normal operating limits;
 - (iii) Loss of communications;
 - (iv) Operation of any safety device;
 - (v) Any other malfunction of a component, deviation from normal operation, or personnel error which could cause a hazard to persons or property. . .
- (3) Correcting variations from normal operation of pressure and flow equipment and controls.
- (4) Notifying responsible operator personnel when notice of an abnormal operation is received.

The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3-4) by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge did not follow its own written procedures for responding to, investigating, and correcting the cause of pressure events outside of normal operating limits (LPM Invalid Pressure Alarms) that had been indicated during a scheduled 10-hour shutdown of Line 6B (Scheduled Shutdown).¹³ The Notice further alleged that Enbridge did not notify

¹³ Violation Report, Exhibits E and F.

responsible personnel in accordance with the procedure.

PHMSA alleged that Respondent's Line 6B controller had initiated the Scheduled Shutdown at approximately 17:55 EDT. Beginning at 17:58, Line Pressure Monitor (LPM) Invalid Pressure alarms at the Marshall pumping station had initiated and then cleared within a few seconds. The Notice alleged that the LPM alarm occurred when the SCADA system sensed one or more pressure transmitters at 0 psig, and then cleared when the pressure went above 0 psig.¹⁴ This cycle repeated six times before it finally remained active at 18:02. The LPM alarm had been designated by Enbridge procedures as a Severity Level 6 (S6 - Severe) Alarm.

PHMSA asserted that Enbridge had not developed a specific written procedure for responding to an LPM Invalid Pressure Alarm, but had instead developed a written procedure for required actions based on alarm severity. For an S6 -Severe Alarm, the procedures required the controller to: (1) notify the Shift Lead; (2) advise on-site/on-call personnel; and (3) create a "FACMAN" (an Enbridge term for a Facility Management record-keeping system used to document abnormal operating conditions).¹⁵ PHMSA alleged that Enbridge failed to take any of these required actions.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3-4) by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 7: The Notice alleged that Respondent violated 49 C.F.R. § 195. 402(a) and (d)(1) and (3-4), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge did not follow its own written procedures for responding to, investigating, and correcting the cause of pressure events outside of normal operating limits (Low Pressure Alarms) that had been indicated during the Scheduled Shutdown.¹⁶ The Notice further alleged that Respondent did not notify responsible personnel in accordance with the procedure.

PHMSA alleged that the company's Line 6B controller had initiated the Scheduled Shutdown at approximately 17:55 on July 25, 2010. Beginning at 17:58, a Low Suction Pressure alarm initiated, cleared within five seconds, then recurred and remained active 10 seconds later. The Notice alleged that this alarm occurred when the suction pressure dropped below 25 psig, and cleared when the suction pressure exceeded 25 psig. This alarm had been designated by Enbridge procedures as a Severity Level 4 (S4- Warning) Alarm.¹⁷

¹⁴ *Id.*

¹⁵ Violation Report, Exhibit F.

¹⁶ Violation Report, Exhibit E.

¹⁷ Violation Report, Exhibit E.

PHMSA asserted that Enbridge had not developed a specific written procedure for responding to a Low Suction Pressure Alarm, but had instead developed a written procedure for required actions based on alarm severity. PHMSA explained that for an S4 -Warning Alarm, the procedures required: (1) discretionary controller response to the alarm, depending on operating conditions; (2) notification of the Shift Lead if unsure of response; (3) if multiple S4 alarms were active for a related issue, the response and severity might be raised; (4) FACMAN creation might be required; and (5) advising on-site/on-call personnel if required. PHMSA further asserted that Enbridge had not taken any of the above actions, or any other actions, in response to this alarm. PHMSA alleged that when the Marshall suction pressure abruptly dropped to 0 psig (which was unexpected and abnormal), the drop dictated follow-up investigative actions in accordance with the procedure to determine the reason/source of the alarm.¹⁸

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3-4) by failing to follow its own written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 8: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3-4), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge did not follow its own written procedures for responding to, investigating, and correcting the cause of an unintended shutdown (Marshall Unit 2 was in Sequence Off Alarm) that occurred during the Scheduled Shutdown. The Notice further alleged that Enbridge did not notify responsible personnel, as required by its procedure.

PHMSA alleged that the Line 6B controller had initiated the Scheduled Shutdown at approximately 17:55 on July 25, 2010. At 17:58, a Marshall Unit 2 Sequence Off Alarm occurred, indicating that the Programmable Logic Controller (PLC) for the Marshall station had stopped Unit 2 based on a condition sensed by the station control logic, which, in this circumstance, was low suction pressure.¹⁹ PHMSA asserted that the alarm had been designated by Enbridge procedures as a Severity Level 4 (S4-Warning) Alarm.²⁰ Enbridge's written procedure for *Pump Unit Lockout - Station* required the controller to enter lockout information in FACMAN.²¹ However, no FACMAN was created in response to this alarm. The Notice alleged that Enbridge's failure to respond to, investigate, and correct the cause of an unintended shutdown resulted in a missed opportunity to identify the Failure when it occurred.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and

¹⁸ Violation Report, Exhibits E and F.

¹⁹ Violation Report, Exhibit F.

²⁰ Violation Report, Exhibit E.

²¹ Violation Report, Exhibit G.

(d)(1) and (3-4) by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 9: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) and (7), which states in relevant part:

§ 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

(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) . . .

(4) Taking necessary action, such as emergency shutdown or pressure reduction, to minimize the volume of hazardous liquid or carbon dioxide that is released from any section of a pipeline in the event of a failure

(7) Notifying fire, police, and other appropriate public officials of hazardous liquid or carbon dioxide pipeline emergencies and coordinating with them preplanned and actual responses during an emergency, including additional precautions necessary for an emergency involving a pipeline system transporting a highly volatile liquid.

The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) and (7) by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge failed to follow its *Emergency Notification* procedure, which required the company to take necessary action to minimize the volume of hazardous liquid released when the Failure occurred and to notify fire, police and other public officials during the emergency.²² The Notice further alleged that Enbridge's *Suspected Column Separation* procedure required the Shift Lead to execute the *Emergency Notification* procedure.²³

PHMSA alleged that a Suspected Column Separation condition was identified and reported to the Shift Lead by CCO support personnel (an MBS Analyst) shortly after the Scheduled Shutdown. The Line 6B controller initiated the Scheduled Shutdown at approximately 17:55 on July 25, 2010. At 18:03, an MBS 5-Minute Alarm for the Griffith to Marshall section of Line 6B occurred.²⁴ The alarm was reported by the controller to the Shift Lead, who requested MBS

²² Violation Report, Exhibits E, F, and H.

²³ Violation Report, Exhibit H.

²⁴ The MBS 5-Minute Alarm is designated by Respondent as a Severity Level 6 (S6-Severe) Alarm. *Id.*

Support to analyze the leak detection alarm. The MBS Analyst reported back to the controller (via telephone) and the Shift Lead (in person), that the MBS model was indicating column separation, a condition in which the pipeline pressure is less than the vapor pressure of the product. PHMSA asserted that although Enbridge's written procedure, *Suspected Column Separation*, required the Shift Lead to execute the *Emergency Notification* procedure, the Shift Lead failed to do so. Execution of this procedure would have resulted in notification of Regional Management (and field personnel), police and other public officials, and the CCO Admin On-Call or Designate.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) and (7) by failing to follow its own manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 10: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) and (7), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge failed to follow its *Emergency Notification* procedure that required it to take necessary action to minimize the volume of hazardous liquid released when a failure occurred and to notify police and other public officials during an emergency.²⁵ It alleged that Enbridge failed to follow its *Leak Triggers- SCADA Data* procedure, which required that if one or two leak triggers occurred, then Respondent must execute its *Suspected Leak* procedure.²⁶ The Notice also alleged that Enbridge failed to follow its *Confirmed Leak* procedure, which required that if three or more triggers occurred, then the *Confirmed Leak* procedure must be executed. PHMSA asserted that neither the *Suspected Leak* procedure nor the *Confirmed Leak* procedure was executed by the CCO in response to the Leak Triggers that occurred shortly after the Scheduled Shutdown.

PHMSA alleged that the Line 6B controller initiated the Scheduled Shutdown at approximately 17:55 on July 25, 2010. The pipeline ruptured at approximately 17:58, approximately 0.6 miles downstream of the Marshall pumping station, resulting in a sudden drop in upstream discharge pressure (0 psig). Multiple alarms and events were received within seconds of the rupture, including low suction pressure at the Marshall pumping station, a shutdown at the Marshall station, and invalid pressure(s) at the station. A 5-Minute MBS alarm occurred on the Griffith to Marshall section of Line 6B at 18:03. These alarms and events all constituted Leak Triggers. PHMSA asserted that had Enbridge followed either procedure, it would have led to the execution of the *Emergency Notification* procedure by the Shift Lead, and Enbridge would have notified Regional/Field personnel, police and other public officials, and the CCO Admin On-Call or Designate.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and

²⁵ Violation Report, Exhibit I.

²⁶ *Id.*

(e)(4) and (7) by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 12: The Notice alleged that Respondent violated 49 C.F.R. § 195.401(b), as quoted above, by continuing to operate its pipeline system without correcting a condition that presented an immediate hazard to persons or property. Specifically, the Notice alleged that at approximately 04:00 on July 26, 2010, Enbridge initiated the scheduled start-up of Line 6B after an approximate 10-hour shutdown (First Restart).²⁷ Enbridge was unable to build pressure at the Marshall pumping station and multiple alarms occurred within minutes of initiating operation. Alarms continued throughout the operation but Enbridge did not terminate the attempted First Restart until after approximately one hour of operation.

The Notice alleged that approximately 10,600 bbls of crude oil was injected into the pipeline during the First Restart, which increased the size of the release and resulted in the displacement of a number of local residents, contamination of approximately 38 miles of the Kalamazoo River, and contamination of affected fish and wildlife.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.401(b) by operating its pipeline system without correcting a condition that presented an immediate hazard to persons or property.

Item 13: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that shortly after initiating the First Restart, Enbridge failed to follow its own *MBS Leak Alarm* procedure, which required that if a leak detection (MBS) alarm occurred, then the controller was to notify the Shift Lead and record the AOC (Abnormal Operating Condition) in FACMAN.²⁸ The procedure then required the Shift Lead to assess the alarm and take appropriate action based on the assessment.

Recorded telephone transcripts and witness interviews indicated that the Line 6B controller contacted the Shift Lead at 04:23, but did not specifically report that MBS alarms had occurred. Then, the controller reported to the Shift Lead that the MBS was starting to react to some flow in the area, but no FACMAN was created to record the AOC.

As discussed above, Respondent's *MBS Leak Alarm* procedure required the Shift Lead to assess an MBS alarm. If there were any doubt about the reliability of the leak detection model, the Shift Lead must then execute the *MBS Alarm-Analysis by MBS Support* procedure. This required that if, after 10 minutes, the analysis of the alarm was not complete then the pipeline was to be shut down. Enbridge neither followed this procedure nor shut down the pipeline until 48 minutes

²⁷ Violation Report, Exhibit K.

²⁸ Violation Report, Exhibits K and L.

after the first MBS alarm occurred.²⁹

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) by failing to follow its manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 14: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3)-(4), which state, in relevant part:

§ 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. . . .

(d) *Abnormal operation.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

- (1) Responding to, investigating, and correcting the cause of:
 - (i) Unintended closure of valves or shutdowns;
 - (ii) Increase or decrease in pressure or flow rate outside normal operating limits;
 - (iii) Loss of communications;
 - (iv) Operation of any safety device;
 - (v) Any other malfunction of a component, deviation from normal operation, or personnel error which could cause a hazard to persons or property. . . .
- (3) Correcting variations from normal operation of pressure and flow equipment and controls.
- (4) Notifying responsible operator personnel when notice of an abnormal operation is received. . . .

The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3)-(4) by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge did not follow its procedure for responding to, investigating, and correcting the cause of pressure outside of normal operating limits (Suspected Column Separation) and for notifying responsible personnel in accordance with the company's *Suspected Column Separation* procedure.³⁰

²⁹ Violation Report, Exhibits K and L.

³⁰ Violation Report, Exhibit H and M.

PHMSA alleged that Enbridge's SCADA information indicated there was zero pressure at the Marshall pumping station upon the First Restart, which was indicative of Suspected Column Separation.³¹ Enbridge's procedure, *Suspected Column Separation*, required that if the column could not be restored within 10 minutes, then the controller must: (1) notify the Shift Lead; (2) shut down the specific line; (3) sectionalize the line; (4) isolate the line; and (5) execute the *Abnormal Operations Condition Reporting* procedure.

Telephone records indicated that the Line 6B controller did notify the Shift Lead at 04:23, just prior to expiration of the 10 minutes that were allowed from the start of the upstream pumping station (Mendon).³² SCADA information indicated, however, that the pipeline was not shut down until approximately 05:00 (thereby exceeding the 10-minute requirement), that the pipeline was not isolated, and that the *Abnormal Operations Condition Reporting* procedure was not executed.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and (d)(1) and (3)-(4) by failing to follow its own written procedures for responding to, investigating, and correcting the cause of pressure outside of normal operating limits (Suspected Column Separation) and for notifying responsible personnel in accordance with the company's *Suspected Column Separation* procedure.

Item 15: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) and (7), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that during the First Restart, Enbridge did not follow either its *Emergency Notification* or *Suspected Column Separation* procedure to minimize the volume of hazardous liquid released in the event of a failure or to notify fire, police, and other appropriate public officials during an emergency.³³

PHMSA alleged that company telephone records indicated that the Line 6B controller reported problems getting pressure at the Marshall pumping station to the Shift Lead at 04:23, just prior to expiration of the 10 minutes that were allowed from the start of the upstream pumping station (Mendon). The Shift Lead then monitored the pressure at the Marshall pumping station and observed pressures that were indicative of Column Separation. However, the Shift Lead did not execute the *Emergency Notification* procedure, which would have resulted in notifications to Regional Management (and field personnel), police, and other public officials, and the CCO Admin On-Call or Designate.³⁴

³¹ Violation Report, Exhibits E and K.

³² Violation Report, Exhibit K.

³³ *Id.*

³⁴ Violation Report, Exhibits K and L.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a) and (e)(4) and (7), by failing to follow its emergency procedures to minimize the volume of hazardous liquid released in the event of a failure and failing to notify fire, police, and other appropriate public officials during an emergency.

Item 16: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a), as quoted above, by failing to follow its manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that during the First Restart, Enbridge personnel used a draft procedure that had never been officially approved by the company for starting up a pipeline with column separation, instead of following the company's approved procedure, *Suspected Column Separation*.³⁵ The Notice further alleged that under Respondent's officially approved procedure, the line would have been shut down and isolated and Enbridge management, field personnel, and emergency responders would have been notified.³⁶

PHMSA alleged that the draft/unapproved procedure included provisions for calculating an amount of time that would be needed to integrate the column, based on calculations of the volume drained from the pipeline, and the injection rate of product into the pipeline.³⁷ According to PHMSA, witness interviews revealed that the unapproved procedure had been used previously in the control room, on a different pipeline, in May 2010 and this fact was used to justify continued operation of the line during the First Restart.³⁸ Enbridge's use of the draft/unapproved procedure resulted in extended operation of the pipeline, additional product being injected into the pipeline, and an increase in the amount of product released.³⁹

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 195.402(a) by failing to follow its manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

Item 17: The Notice alleged that Respondent violated 49 C.F.R. § 195.401(b), as quoted above, by continuing to operate its pipeline after discovering an unsafe condition that presented an immediate hazard to persons and property. Specifically, the Notice alleged that at approximately 07:20 on July 26, 2010, the Line 6B controller initiated another start-up of

³⁵ Violation Report, Exhibit M.

³⁶ *Id.*

³⁷ *Id.*

³⁸ Violation Report, Exhibits H, L, and M.

³⁹ The Notice alleged that the Line 6B controller's pod-mate (the person who operated pipelines at the adjacent console) brought forward the unapproved procedure from May 2010 via an e-mail that had been used previously in the control room, and that the Shift Lead who was attempting to assist the Line 6B controller used this unapproved procedure to justify continued operation of Line 6B.

the line after discussing the circumstances surrounding the failed First Restart with CCO Supervisors, support personnel, and On-Call Management (Second Restart). Again, Enbridge received multiple alarms and indications of abnormal operating conditions but did not terminate the Second Restart for at least 30 more minutes.

PHMSA alleged that approximately 5,831 bbls of crude oil was injected into the pipeline during the Second Restart. The attempt to re-start the pipeline delayed corrective actions and allowed additional oil to drain from the rupture during stabilization. The Notice alleged that the release resulted in a number of local residents being displaced, the contamination of approximately 38 miles of the Kalamazoo River, and contamination of affected fish and wildlife.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.401(b) by continuing to operate its pipeline after discovering an unsafe condition that presented an immediate hazard to persons and property.

Item 18: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a), (d)(1) and (3)-(4), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that, during the Second Restart, Enbridge did not follow either its *Emergency Notification* or *Suspected Column Separation* procedure for responding to, investigating, and correcting the cause of variations from normal operation of pressure to minimize the volume of hazardous liquid released in the event of a failure or notifying fire, police, and other appropriate public officials during an emergency.⁴⁰ As noted above in Item 14, Enbridge's *Suspected Column Separation* procedure required that if the column could not be restored within 10 minutes, then the controller must: (1) notify the Shift Lead; (2) shut down the specific line; (3) sectionalize the line; (4) isolate the line; and (5) execute the *Abnormal Operations Condition Reporting* procedure.

PHMSA alleged that Respondent's SCADA information demonstrated that suspected column separation at the Marshall pumping station persisted through the entire Second Restart process.⁴¹ The controller, with Shift Lead oversight, commenced the Second Restart after the circumstances of the failed First Restart were discussed with CCO Supervisors, support personnel, and On-Call Management.⁴² Unit 4 at Mendon pumping station was started at 07:32. The SCADA indicated that Unit 4 at Mendon was online at 07:35. The column was not restored, which by the *Suspected Column Separation* procedure, required the Line 6B controller to shut down the pipeline within 10 minutes. SCADA information showed that the Line 6B controller finally began to shut down the line at 07:50, thereby exceeding the 10-minute requirement, that the pipeline was not isolated and that the *Abnormal Operations Condition Reporting* procedure was not executed.

⁴⁰ Violation Report, Exhibits E and N.

⁴¹ *Id.*

⁴² Violation Report, Exhibits E, H and L.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a), (d)(1) and (3)-(4) by failing to follow either its *Emergency Notification* or its *Suspected Column Separation* procedure for responding to variations from normal operation of pressure and flow equipment and controls or notifying fire, police, and other appropriate public officials during an emergency.

Item 19: The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a), (e)(4) and (7), as quoted above, by failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that during the Second Restart, Enbridge followed neither its *Emergency Notification* nor *Suspected Column Separation* procedure to minimize the volume of hazardous liquid released in the event of a failure or to notify fire, police, and other appropriate public officials during an emergency.

PHMSA alleged that SCADA information indicated there was suspected column separation at the Marshall pumping station when the Second Restart commenced.⁴³ Enbridge's *Suspected Column Separation* procedure required the Shift Lead to execute the *Emergency Notification* procedure if the column could not be restored within 10 minutes. According to PHMSA, Enbridge's SCADA information indicated the Second Restart was terminated at 07:50 when the column could not be restored.⁴⁴ Telephone records and witness interviews indicated the Shift Lead monitored operations during the Second Restart but did not execute the *Emergency Notification* procedure as required by the *Suspected Column Separation* procedure.⁴⁵

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.402(a), (e)(4) and (7) by failing to follow its emergency procedures to minimize the volume of hazardous liquid released in the event of a failure and failing to notify fire, police, and other appropriate public officials during an emergency.

Item 21: The Notice alleged that Respondent violated 49 C.F.R. § 195.52(b), which states, in relevant part:

§ 195.52 Telephonic notice of certain accidents.

(a) At the earliest practicable moment following discovery of a release of hazardous liquid or carbon dioxide transported resulting in an event described in § 195.50, the operator of the system shall give notice, in accordance with paragraph (b) of this section . . .

(b) Reports made under paragraph (a) of this section are made by telephone to 800-424-8802 (in Washington, DC, 20590-0001 (202) 372-2428) and must

⁴³ Violation Report, Exhibit H.

⁴⁴ Violation Report, Exhibit E.

⁴⁵ Violation Report, Exhibit L.

include the following information: . . .

- (4) The time of the failure. . .
- (6) All other significant facts known by the operator that are relevant to the cause of the failure or extent of the damages.⁴⁶

The Notice alleged that Respondent violated 49 C.F.R. § 195.52(b) by failing to accurately report the time of the Failure and other significant facts relevant to the extent of damages associated with the pipeline rupture. Specifically, the Notice alleged that Enbridge provided NRC Report #948903 at 13:33 on July 26, 2010, for the accident that occurred at 17:58 on July 25, 2010.⁴⁷ The Notice further alleged Respondent's NRC Report# 948903 incorrectly reported that the time the Failure was discovered was 09:45 local time, that the material had not yet reached the Kalamazoo River, and that the release had been secured.

PHMSA alleged that its witness interviews indicated CCO personnel on shift had already discovered that the SCADA information indicated the rupture had likely occurred when the pipeline was shut down the night before.⁴⁸ The Notice alleged that soon after NRC Report #948903 was filed, it became evident to Enbridge that the release was not secured, as oil was moving down the Kalamazoo River. The impacts to people, property, and the environment were immediately obvious when emergency response actions were initiated. PHMSA asserted that Enbridge did not provide the NRC with any additional telephonic reports to correct and/or augment the initial information that had been provided.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.52(b) by failing to accurately report the time of the Failure and other significant facts relevant to the extent of damages associated with the release.

Item 22: The Notice alleged that Respondent violated 49 C.F.R. § 195.54(a), which states:

§ 195.54 Accident reports.

- (a) Each operator that experiences an accident that is required to be reported under §195.50 shall as soon as practicable, but not later than 30 days after discovery of the accident, prepare and file an accident report on DOT Form 7000-1, or a facsimile.

The Notice alleged that Respondent violated 49 C.F.R. § 195.54(a) by failing to prepare and file an accident report on DOT Form 7000-1, or a facsimile, as soon as practicable, but not more than 30 days after discovery of an accident required to be reported under § 195.50. Specifically, the Notice alleged that Enbridge failed to report currently available accident information on DOT

⁴⁶ The Notice inadvertently quoted a revised version of § 195.54 that did not become effective until November 26, 2010, subsequent to the date of the Failure. The revised version made no substantive changes in the regulation and does not affect the allegations in Item 21.

⁴⁷ Violation Report, Exhibit O.

⁴⁸ Violation Report, Exhibits E, N and O.

Form 7000-1 within 30 days of discovery of the Failure, which occurred on July 25, 2010.

The Notice alleged that Enbridge filed Report #20100181- 15259 on August 25, 2010, but it contained inaccurate information.⁴⁹ The Report indicated that the local time and date of the accident was 11:41 on July 26, 2010, when it had been clear within hours of discovery that the failure date and time was approximately 17:58 on July 25, 2010. PHMSA further alleged that the Report did not indicate the number of persons evacuated, even though daily EPA Pollution Reports indicated the number of residences that had been evacuated, and Enbridge had paid for alternative lodging for some evacuees.⁵⁰ Enbridge reported that the estimated pressure at the point and time of the accident was 0.00 psig, when the actual operating pressure at the point and time of the Failure, as indicated by available SCADA information, was approximately 475 psig.⁵¹ Other fields within the Report concerning SCADA and CPM information were also allegedly inaccurate, such that the report indicated that SCADA-based information had not assisted with detection of the accident, that the CPM system was not fully functional at the time of the accident, and that the CPM system did not assist with detection of the accident. The Notice alleged that, in actuality, all of these systems were fully functional and provided proper indications of the Failure.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.54(a) by failing to prepare and file an accident report on DOT Form 7000-1, or a facsimile, as soon as practicable, but not later than 30 days, following an accident required to be reported under § 195.50.

Item 23: The Notice alleged that Respondent violated 49 C.F.R. § 195.54(b), which states:

§ 195.54 Accident reports.

(a) Each operator that experiences an accident that is required to be reported under §195.50 shall as soon as practicable, but not later than 30 days after discovery of the accident, prepare and file an accident report on DOT Form 7000-1, or a facsimile.

(b) Whenever an operator receives any changes in the information reported or additions to the original report on DOT Form 7000-1, it shall file a supplemental report within 30 days.

The Notice alleged that Respondent violated 49 C.F.R. § 195.54(b) by failing to file supplemental accident reports within 30 days of receiving changes in the information originally reported. Specifically, the Notice alleged that Enbridge did not submit supplemental reports within 30 days of receiving changes or additions to the information originally reported on DOT Form 7000-1 in Report #20100181-15259.⁵² Enbridge submitted the Original Form 7000-1

⁴⁹ Violation Report, Exhibit P.

⁵⁰ *Id.*

⁵¹ Violation Report, Exhibit E.

⁵² Violation Report, Exhibit P.

accident report on August 25, 2010, and supplemental reports on December 20, 2010, February 22, 2011 (two reports were submitted on this date), and March 6, 2012. The Notice alleged that the supplemental reports filed by Enbridge contained inaccurate information.

PHMSA alleged that during its accident investigation, on December 5, 2011, a witness stated to PHMSA representatives that Enbridge had determined that the total cost of damages associated with the Failure was currently \$720 million.⁵³ The cost figure included in the February 22, 2011 report was \$550 million. The Notice alleged that while it was unknown at what point the \$720 million damage figure was determined, the reported value was not updated until March 6, 2012, approximately three months after the interview.

The Notice further alleged that Enbridge reported all of the costs on the “Estimated other costs” (8f) line item on DOT Form 7000-1, rather than in the appropriate cost categories provided. Additional cost details were contained in a Supplemental Narrative, but still not allocated according to the prescribed cost categories. Known details, such as the number of people evacuated, the estimated release volume, the pressure at the point and time of the accident, and SCADA, CPM, and other reporting elements were not updated until more than 18 months after the Failure.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.54(b) by failing to file a supplemental accident report within 30 days of receiving changes in the information originally reported.

Item 24: The Notice alleged that Respondent violated 49 C.F.R. § 195.505(c), which states:

§ 195.505 Qualification program.

Each operator shall have and follow a written qualification program.

The program shall include provisions to:

(a) . . .

(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.

The Notice alleged that Respondent violated 49 C.F.R. § 195.505(c) by failing to have and follow a written Operator Qualification (OQ) program that allowed individuals who were not qualified to perform covered tasks only if directed and observed by individuals who were qualified. Specifically, the Notice alleged that on the day of the Failure, Enbridge allowed a previously-qualified controller, who had been off duty for an extended period of time, to operate the Line 6B console, with a qualified controller assigned to oversee the operations.

PHMSA alleged that during the shift on July 25, 2010, from approximately 5:30 to 17:30, the qualified controller, seated adjacent to the un-qualified controller, was performing other tasks

⁵³ Violation Report, Exhibit Q.

and not directing and observing the line operations performed by the non-qualified employee, as required by the company's own written procedures.⁵⁴ After initiating the Scheduled Shutdown at 14:56, a number of control center alarms (leak triggers), including a five-minute MBS alarm, multiple low-pressure alarms, and a Marshall pumping station "cascade" shutdown occurred, indicating potential integrity issues with the pipeline.⁵⁵ According to PHMSA, the non-qualified controller did not respond to the alarms in accordance with Enbridge's own written procedures, and the qualified controller's oversight of the operations was insufficient to ensure that the required actions were taken.

Respondent did not contest the proposed penalty for this allegation of violation. Accordingly, based upon a review of the record, I find that Respondent violated 49 C.F.R. § 195.505(c) by failing to have and follow a written OQ program that allowed individuals who were not qualified to perform covered tasks only if directed and observed by individuals who were qualified.

These findings of violation will be considered prior offenses in any subsequent enforcement action taken against Respondent.

ASSESSMENT OF PENALTY

Under 49 U.S.C. § 60122, Respondent is subject to an administrative civil penalty not to exceed \$100,000 per violation for each day of the violation, up to a maximum of \$1,000,000 for any related series of violations. In determining a penalty amount under 49 U.S.C. § 60122 and 49 C.F.R. § 190.225, I must consider the statutory assessment criteria, including the nature, circumstances, and gravity of the violation; the degree of Respondent's culpability; the history of Respondent's prior offenses; the Respondent's ability to pay the penalty and any effect that the penalty may have on its ability to continue doing business; and the good faith of Respondent in attempting to comply with the pipeline safety regulations. The Notice proposed a total administrative civil penalty of \$3,699,200 for the violations cited above.

Item 1: The Notice proposed an administrative civil penalty of \$97,800 for Respondent's violation of 49 C.F.R. § 195.452(h)(1)-(2), for failing to promptly obtain sufficient information about anomalous conditions on Line 6B to make a determination that the conditions presented a potential threat to the integrity of the pipeline and to take prompt action to address those conditions that could reduce the pipeline's integrity. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$97,800 for violation of 49 C.F.R. § 195.452(h)(1)-(2).

Item 2: The Notice proposed an administrative civil penalty of \$1,000,000 for Respondent's violation of 49 C.F.R. § 195.452(h)(4), for failing to properly schedule the evaluation and remediation of certain anomalous conditions that were required to be remediated within 180 days of their discovery. Enbridge paid the proposed penalty, which serves to close the case with

⁵⁴ Violation Report, Exhibits E and H.

⁵⁵ *Id.*

prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$1,000,000 for violation of 49 C.F.R. § 195.452(h)(4).

Item 3: The Notice proposed an administrative civil penalty of \$85,300 for Respondent's violation of 49 C.F.R. § 195.452(i)(1) and (2)(i)-(iv), for failing to perform a proper risk analysis to identify the need for additional preventive and mitigative measures to protect HCAs. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$85,300 for violation of 49 C.F.R. § 195.452(i)(1) and (2)(i)-(iv).

Item 4: The Notice proposed an administrative civil penalty of \$1,000,000 for Respondent's violation of 49 C.F.R. § 195.452(j)(2), for failing to conduct periodic evaluations as frequently as needed to assure pipeline integrity, based upon an analysis of risk factors specific to its pipeline. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$1,000,000 for violation of 49 C.F.R. § 195.452(j)(2).

Item 5: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.401(b), for failing to correct, within a reasonable time after discovery, conditions that could adversely affect the safe operation of its pipeline. Specifically, it alleged that Enbridge failed, within a reasonable time, to correct conditions that it had discovered as a result of a series of SCADA/instrumentation alarms and events occurring within seconds and minutes of the Failure. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.401(b).

Item 6: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3-4), for failing to follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge failed to follow its own written procedures for responding to, investigating, and correcting the cause of pressure outside of normal operating limits that had been indicated by LPM Invalid Pressure Alarms during the Scheduled Shutdown. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3-4).

Item 7: The Notice proposed an administrative civil penalty of \$41,200 for Respondent's violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3-4), for failing to follow its manual of written procedures for responding to, investigating, and correcting the cause of pressure events outside of normal operating limits that had been indicated by Low Pressure Alarms during the Scheduled Shutdown. Enbridge paid the proposed penalty, which serves to close the case with

prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$41,200 for violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3-4).

Item 8: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3-4), for failing to follow its manual of written procedures for responding to, investigating, and correcting the cause of an unintended shutdown that occurred during the Scheduled Shutdown. The Notice further alleged that Respondent also failed to notify responsible personnel in accordance with the procedure. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3-4).

Item 9: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (e)(4) and (7), for failing to follow its manual of written procedures for taking necessary action to minimize the volume of hazardous liquid released in a failure and to notify fire, police and other public officials during an emergency. Enbridge paid the proposed penalty, which served to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a) and (e)(4) and (7).

Item 10: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (e)(4) and (7), for failing to follow its manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge failed to follow either its *Suspected Leak* or *Confirmed Leak* procedure in response to the Leak Triggers that occurred shortly after the Scheduled Shutdown. As a result, Enbridge failed to execute its *Emergency Notification* procedure, under which it would have notified Regional/Field personnel, police, and other public officials, and the CCO Admin On-Call or Designate.

Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a) and (e)(4) and (7).

Item 12: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.401(b), for operating its pipeline system without correcting a condition that presented an immediate hazard to persons or property. Specifically, the Notice alleged that Enbridge initiated the First Restart and then continued operating the line despite unsuccessful attempts to build pressure at the Marshall pumping station and multiple alarms occurring within minutes after the restart. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.401(b).

Item 13: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (e)(4), for failing to follow its own written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that shortly after initiating the First Restart, Enbridge failed to follow its own *MBS Leak Alarm* procedure, which required that if an MBS alarm occurred, then the controller was to notify the Shift Lead, and record the abnormal operating condition in the company's FACMAN database.

Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402 (a) and (e)(4).

Item 14: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3)-(4), for failing to follow its manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. Specifically, the Notice alleged that Enbridge did not follow its *Suspected Column Separation* procedure for responding to, investigating, and correcting the cause of pressure variations outside of normal operating limits and for notifying responsible personnel. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a) and (d)(1) and (3)-(4).

Item 15: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (e)(4) and (7), for failing to follow either its *Emergency Notification* or *Suspected Column Separation* procedure to minimize the volume of hazardous liquid released in the event of a failure or to notify fire, police and other appropriate public officials during an emergency. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a) and (e)(4) and (7).

Item 16: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a), for failing to follow its own manual of written procedures for conducting normal operations and maintenance activities and for handling abnormal operations and emergencies. Specifically, it alleged that, during the First Restart, Enbridge personnel used a draft procedure that had never been officially approved by the company for starting up a pipeline with column separation. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a).

Item 17: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.401(b), for continuing to operate its pipeline after discovering an

unsafe condition that presented an immediate hazard to persons and property. Specifically, the Notice alleged that Enbridge initiated and continued the Second Restart of Line 6B despite the occurrence of additional alarms and problems in building pressure at the Marshall pumping station. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.401(b).

Item 18: The Notice proposed penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a), (d)(1) and (3)-(4), for failing to follow either its *Emergency Notification* or *Suspected Column Separation* procedure for responding to, investigating, and correcting the cause of variations from normal operation of pressure to minimize the volume of hazardous liquid released in the event of a failure or notifying fire, police, and other appropriate public officials during an emergency. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a), (d)(1) and (3)-(4).

Item 19: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a), (e)(4) and (7), for failing to execute its *Emergency Notification* procedure during the Second Restart when the column could not be restored within 10 minutes. Under such procedure, Enbridge would have notified fire, police, and other appropriate public officials of a hazardous liquid release emergency. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.402(a), (e)(4) and (7).

Item 21: The Notice proposed an administrative civil penalty of \$32,500 for Respondent's violation of 49 C.F.R. § 195.52(b), for failing to accurately report the time of the Failure and other significant facts relevant to the extent of damages associated with the pipeline rupture. The Notice further alleged that Enbridge's NRC Report# 948903 incorrectly reported the time the Failure was discovered as being 09:45 local time, that the material had not yet reached the Kalamazoo River, and that the release had been secured. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$32,500 for violation of 49 C.F.R. § 195.52(b).

Item 22: The Notice proposed an administrative civil penalty of \$23,700 for Respondent's violation of 49 C.F.R. § 195.54(a), for failing to prepare and file an accident report on DOT Form 7000-1, or a facsimile, as soon as practicable, but not later than 30 days after discovery of an accident required to be reported under § 195.50. Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$23,700 for violation of 49 C.F.R. § 195.54(a).

Item 23: The Notice proposed an administrative civil penalty of \$18,700 for Respondent's

violation of 49 C.F.R. § 195.54(b), for failing to file supplemental accident reports within 30 days of receiving changes in the information originally reported. Specifically, it alleged that Enbridge did not submit supplemental reports within 30 days of receiving changes or additions to the information originally reported on DOT Form 7000-1, dated August 25, 2010, and that the supplemental reports it did file contained inaccurate information.

Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$18,700 for violation of 49 C.F.R. § 195.54(b).

Item 24: The Notice proposed an administrative civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.505(c), for failing to have and follow a written OQ Program that allowed individuals who were not qualified to perform covered tasks only if directed and observed by individuals who were qualified. Specifically, it alleged that on the day of the Failure, Enbridge allowed a previously-qualified controller, who had been off duty for an extended period of time, to operate the Line 6B console without proper direction and observation by a qualified controller.

Enbridge paid the proposed penalty, which serves to close the case with prejudice to Respondent. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent an administrative civil penalty of \$100,000 for violation of 49 C.F.R. § 195.505(c).

In summary, having reviewed the record and considered the assessment criteria for each of the Items as discussed above, I assess Respondent a total administrative civil penalty of **\$3,699,200**, which amount has already been paid by Respondent.

WARNING ITEMS

With respect to Item 11 and 20, the Notice alleged probable violations of Part 195 but did not propose an administrative civil penalty or compliance order for these items. Therefore, these are considered to be warning items. The warnings were for:

49 C.F.R. § 195.440(c) (**Item 11**) — Respondent's alleged failure to follow and implement a public awareness program (PAP) meeting the general program recommendations set forth in [American Petroleum Institute] Recommended Practice 1162, and to evaluate its effectiveness in accordance with company procedures. The Notice alleged a number of instances where actions taken by members of the PAP target audience were not in accordance with the program message (e.g. not associating the odor with that of a possible crude oil release, not contacting Enbridge's Emergency Number in response to the odor complaints, and entry into the release area by untrained individuals).

49 C.F.R. § 195.195.52(a)(1-5)(**Item 20**) — Respondent's alleged failure to accurately report required accident information at the earliest practicable moment following discovery of a reportable release.

Accordingly, having considered such information, I find, pursuant to 49 C.F.R. § 190.205, that probable violations of 49 C.F.R. §§ 195.440(c) (**Item 11**) and 195.195.52(a)(1-5) (**Item 20**) have occurred. If OPS finds a violation of these provisions in a subsequent inspection, Respondent may be subject to future enforcement action.

This Order does not resolve any existing or potential civil or criminal liability that Enbridge may have for any other violations of the federal Pipeline Safety Laws, or any regulations or orders issued thereunder, not specifically enumerated herein. Further, this Order does not resolve any existing or potential civil or criminal liability that Enbridge may have for violations of any other federal laws arising from or otherwise related to the events or conduct giving rise to this Order or to the consequences or damages resulting from the Failure.

The terms and conditions of this Final Order are effective upon service in accordance with 49 C.F.R. § 190.5.



Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

SEP -7 2012

Date Issued