



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Ave., SE  
Washington, DC 20590

**AUG 17 2010**

Mr. Terry McGill  
President  
Enbridge Energy Partners, L.P.  
1100 Louisiana Street, Suite 3300  
Houston, TX 77002

**Re: CPF No. 3-2008-5011**

Dear Mr. McGill:

Enclosed please find the Final Order issued in the above-referenced case. It makes findings of violation, assesses a civil penalty of \$2,405,000, and specifies actions that must be taken by Enbridge to comply with the pipeline safety regulations. The actions required are in addition to and do not waive any requirements that apply to Enbridge's pipeline system under 49 C.F.R. Part 195, under any other order issued to Enbridge under authority of 49 U.S.C. § 60101 et seq., or under any other provision of Federal or State law.

The penalty payment terms are set forth in the Final Order. When the civil penalty has been paid and the terms of the compliance order completed, as determined by the Director, Central Region, this enforcement action will be 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 Barrett, Director, Central Region, PHMSA  
Mr. Glenn M. Jones, Counsel for Enbridge Energy Partners, L.P.  
Fulbright & Jaworski LLP, 801 Pennsylvania Ave NW, Washington, DC 20004-2623

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED [7009 1410 0000 2472 2810]**

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

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**In the Matter of**

**Enbridge Energy Partners, L.P.,**

**Respondent.**

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**CPF No. 3-2008-5011**

**FINAL ORDER**

On November 28, 2007, pursuant to 49 U.S.C. § 60117, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), and the Minnesota Office of Pipeline Safety initiated an investigation of an accident that occurred on a crude oil pipeline owned and operated by Enbridge Energy Partners, L.P. (Enbridge or Respondent), near Clearbrook, Minnesota. Respondent is a subsidiary of Enbridge Inc., a Canadian company, which owns and operates more than 8,500 miles of hazardous liquid and natural gas pipelines.<sup>1</sup>

The pipeline where the accident occurred is part of Enbridge's 3,500-mile Lakehead System in the Midwestern United States. The accident happened when Enbridge attempted to complete a repair of a longitudinal seam leak by installing a new 11-foot section of pipe. One of the couplings used to join the new section of pipe slipped during restart of the line, allowing the release of crude oil that formed a flammable cloud. An open flame heater positioned at the edge of the excavation ignited the cloud resulting in a fire that caused the deaths of two Enbridge employees as well as property damage to the pipeline and construction equipment.

As a result of the investigation, the Director, Central Region, OPS (Director), issued to Respondent, by letter dated October 1, 2008, a Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Enbridge had committed violations of 49 C.F.R. Part 195 and proposed a civil penalty of \$2,405,000 for the alleged violations. The Notice also proposed ordering Respondent to take certain measures to correct the alleged violations.

After requesting and receiving an extension of time, Enbridge responded to the Notice by letter dated November 26, 2008 (Response). Respondent stated that it did not intend to contest the merits of the allegations, but sought a reduction of the proposed civil penalty and modification of the proposed compliance terms to the extent such terms were completed. Respondent also

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<sup>1</sup> Respondent files annual reports with PHMSA under the name Enbridge Energy, Limited Partnership, which is a subsidiary of Enbridge Energy Partners, L.P.

requested a hearing. Prior to the hearing, by letter dated December 1, 2009, Enbridge submitted information regarding corrective action it had taken.

In accordance with 49 C.F.R. § 190.211, a hearing was held on December 4, 2009, in Kansas City, Missouri, with an attorney from the Office of Chief Counsel, PHMSA, presiding. Enbridge provided a transcript of the hearing for inclusion in the record. After the hearing, Respondent provided a closing memorandum dated January 8, 2010 (Brief). Although Enbridge had stated in its Response that it did not intend to contest the violations, the company contested many of them in its Brief, and sought closure of the proposed compliance terms and a reduction of the proposed civil penalty.

PHMSA has reviewed the evidence in the record in light of the allegations of violation as well as Enbridge's assertions, and has determined that Respondent committed certain violations of the pipeline safety regulations as set forth below in the Findings of Violation section. In the Assessment of Penalty section, PHMSA has determined that Enbridge is liable for civil penalties totaling \$2,405,000 for the violations. In the Compliance Order section, PHMSA has ordered Enbridge to take corrective action to remediate the violations, including revising and implementing procedures for using certain couplings, anchoring its pipeline during repairs, reviewing work performed by personnel, pressurizing a pipeline under repair, qualifying personnel to install the couplings, and training personnel.

### **FINDINGS OF VIOLATION**

The Notice alleged that Respondent committed eight violations of 49 C.F.R. Part 195, as follows:

**Item 1:** The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a), which states:

**§ 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 . . . .

The Notice alleged that Respondent violated § 195.402(a) by failing to follow its written procedures for the use of Weld+Ends couplings during a pipe replacement project on its 34-inch crude oil pipeline (Line 3).<sup>2</sup> Specifically, the Notice alleged that Respondent failed to follow Enbridge Procedure 06-03-13, "PLIDCO Weld+Ends Couplings," which required the company to tighten all clamp screws evenly around the pipe and to use the torque specifications listed in the procedure. The Notice alleged that prior to the installation of the Weld+Ends couplings at Mile Post (MP) 912 on November 28, 2007, Enbridge personnel had removed approximately one half of the clamp screws on the couplings, a practice not permitted by the installation procedures.

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<sup>2</sup> Weld+Ends couplings are a specific type of fitting manufactured by Plidco used to join two sections of pipe. Once the coupling is in place and the clamping and thrust screws are tightened, flow is initiated in the pipeline to keep the seal materials from sustaining heat damage during welding. A fillet weld is completed around the pipeline at both ends of the coupling to effect permanent installation.

The Notice also alleged that Respondent failed to ensure the proper torque was applied to the clamp and thrust screws during the installation of the couplings and failed to double-check the torque applied to the clamp screws as required by the procedure.

In its Response and Brief, Enbridge did not contest the allegation of violation “in so far as the procedures it followed on November 28, 2007 were not consistent with an unanchored pipe setting.”<sup>3</sup> Enbridge offered no further statements or arguments in response to this allegation of violation.

Respondent’s removal of clamp screws and its failure to ensure that proper torque was applied constituted failures to follow the company’s written procedures for installation of the couplings. Accordingly, after considering the evidence, I find that Respondent violated 49 C.F.R. § 195.402(a) by failing to follow its written procedures for the installation of the couplings.

**Item 2:** The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a), quoted above, by failing to follow its written procedures for anchoring the pipeline during the repair project. Specifically, the Notice alleged that on the day in question, Enbridge did not anchor the pipeline as required by its procedures prior to increasing pressure in the pipeline above designated limits for unanchored pipe. The Notice further alleged that as Enbridge attempted to increase pressure in the pipe to levels only permitted for anchored pipe, the pipe moved, causing a coupling to fail.

In its Response, Enbridge indicated that it did not intend to contest the merits of the allegation. In its Brief, however, the company contested the allegation that the company violated § 195.402(a) as alleged. Respondent contended that it followed its written procedures, but that the procedures did not necessarily provide guidance about how to conduct an assessment to determine if pipe is anchored. Respondent explained that its pipeline was “uniquely exposed and positioned” at the repair site. It stated that the exposed pipe had a slight downward slope of approximately 1.5 degrees and an offset of approximately 7.5 feet horizontally and 2.5 feet vertically, which “affected the anchoring of the pipeline, making it partially, not fully anchored.”<sup>4</sup> The company stated that at the time of the accident, Enbridge employees believed the pipe was fully anchored because the pipe had not shifted when certain restraints were removed. Respondent explained that its written procedures did not describe how or when an anchoring assessment should be made based on the degree to which its pipeline was exposed or had deviations in alignment.

After a review of the evidence, I note that Enbridge Procedure 06-03-13 required, among other things as part of the installation of the couplings, that the pipeline be refilled to a working pressure. The pressure limit was based on whether or not the pipe was “anchored.”<sup>5</sup> The procedures noted that a “[p]ipe is anchored if it is protected from movement in all directions so it will be unaffected by, for example, abrupt pressure changes, temperature changes, or oil movement (e.g., buried pipe).”<sup>6</sup> The manufacturer’s procedures for installing the couplings provided, among other things, that the couplings “must not be tested above the *Pipe Not*

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<sup>3</sup> Brief at 5.

<sup>4</sup> Brief at 6.

<sup>5</sup> Violation Report, Exhibit D2, Enbridge Procedure 06-03-13, at 3.

<sup>6</sup> Violation Report, Exhibit D2, Enbridge Procedure 06-03-13, at 3.

*Anchored* rating” if the pipe is in an unanchored condition.<sup>7</sup> The procedures also stated that installers must “[r]ead and carefully understand the definition of *Anchored Pipe*, *Pipe Not Anchored* and *After Welding* as listed in the *Safety Check List* before pressurizing the line.”<sup>8</sup>

Enbridge personnel considered the pipe to be anchored and pressurized the line above the specified limit for unanchored pipe, resulting in the failure of at least one coupling. Enbridge’s accident investigation report noted that “separation of the newly installed Weld+Ends Coupling occurred as a result of inadequate restraint that allowed the Weld+Ends Coupling to slip sufficiently resulting in the release of crude oil when crude oil flow in Line 3 was being restarted.”<sup>9</sup>

It is evident from the circumstances of the accident that the pipe was not protected from movement in all directions. Respondent acknowledged in its Brief that the pipeline was “partially, not fully, anchored.”<sup>10</sup> At the hearing, Enbridge acknowledged that its procedures did not contemplate “partial anchoring,” and that under the procedures, the pipeline was either anchored or not anchored. I find that since Respondent’s pipeline was not “protected from movement in all directions,” as specified in its procedures, the pipeline was not anchored. The facts indicate, therefore, that Respondent did not comply with its procedures for anchoring the pipeline prior to increasing pressure in the pipeline above the limit for unanchored pipe.

I decline to follow Respondent’s argument that since the procedures did not provide guidance about determining acceptable anchoring, the company complied with § 195.402(a) by simply following the deficient procedures. Respondent’s written procedures were clear enough to specify that an anchored pipe is one that cannot be moved by expected changes in pressure or the movement of oil. The responsibility rested with Respondent to comply with its procedures by determining through necessary means whether its pipeline met the criteria for anchored pipe before proceeding on the assumption that its pipeline was anchored.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.402(a) by failing to follow its written procedures for anchoring the pipeline prior to increasing pressure above the limit specified for unanchored pipe.

**Item 3:** The Notice alleged that Respondent violated 49 C.F.R. § 195.402(a) and (c)(13), which state:

**§ 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 . . . .

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<sup>7</sup> Violation Report, Exhibit D1, Plidco Weld+Ends Installation Instructions, at 5 (emphasis in original).

<sup>8</sup> Violation Report, Exhibit D1, Plidco Weld+Ends Installation Instructions, at 5 (emphasis in original).

<sup>9</sup> Violation Report, Exhibit E, Enbridge Investigation Report, at 9

<sup>10</sup> Brief at 6.

(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.

The Notice alleged that Respondent violated § 195.402(a) and (c)(13) by failing to periodically review the work performed by its personnel to determine the effectiveness of the company's procedures for installing Weld+Ends couplings. Specifically, the Notice alleged that over a number of years Enbridge employees routinely removed clamp screws on Weld+Ends couplings prior to installation, a practice not permitted by the company's written procedures and which contributed to the accident on November 28, 2007. In addition, the Notice alleged that torque values were not routinely checked as required by the procedures.

The record includes PHMSA inspectors' notes from interviews with Enbridge employees following the November 28, 2007, accident. At least seven employees stated during those interviews that, in their experience, Enbridge had routinely removed clamp screws when installing Weld+Ends couplings.<sup>11</sup> For example, "Employee 1" had been a supervisor with Enbridge since 1996, and an Enbridge employee since 1984. He stated that it had always been the practice since he started working with Enbridge to cut alternate bolts off Weld+Ends couplings before installing them. "Employee 2" had been a manager at Enbridge since 2001, a supervisor with the company for 11 years before that, and had been with the company for 25 years. He indicated that some company supervisors had adopted the practice of cutting off some of the clamp screws prior to installing Weld+Ends couplings, and that this practice had never been a safety concern before because the installations had held up. "Employee 3" had been a supervisor with Enbridge since 1997 and an Enbridge employee for 33 years. He estimated that he had been involved in 20 to 30 installations of Weld+Ends couplings, and stated that it was common practice to cut off approximately half of the clamping screws prior to their installation.

"Employee 4" had been a project coordinator with Enbridge since 2002, a welder for two years before that, and had been with the company since 1988. He had been involved in approximately 12 Weld+Ends coupling installations with the company, the most recent in 2000 or 2001. He noted that in his experience, some clamping bolts were cut off in advance of the installation if time permitted. "Employee 5" had been a supervisor for Enbridge for 3 years and employed with the company for 18 years. He recalled installing one such fitting in the 1990s after the clamp screws were cut off. "Employee 6" had been a supervisor for Enbridge for 15 years and employed with the company for 36 years. Prior to becoming a supervisor, he recalled cutting off some of the clamp screws to prepare Weld+Ends couplings for installation. "Employee 7" had been a supervisor for 2 years and a welder for 13 years prior to that, and has been employed with Enbridge for 24 years. He also recalled cutting off clamp screws prior to installing such fittings.

In its Response, Enbridge indicated that it did not intend to contest the merits of the allegation. In its Brief, however, the company argued, among other things, that it had been a long time since Employees 4 and 5 were involved in the installation of Weld+Ends couplings, and that their

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<sup>11</sup> The employees are identified by name in the record, but their names are not included in this Final Order.

statements should not be relied on as an accurate account of “how Enbridge in fact conducts these installations in every instance.”<sup>12</sup> Respondent also argued that a post-accident review of its inventory indicated Weld+Ends couplings stored at various locations had intact clamp screws, and that this refutes any statement “that Enbridge always removed clamp screws from Weld+Ends couplings prior to installation.”<sup>13</sup>

I agree that the employees’ statements do not necessarily prove that Enbridge *always* removed clamp screws from Weld+Ends couplings prior to installation. Whether or not Enbridge removed clamp screws in every instance is not the issue, however. The record shows that at least seven Enbridge supervisors had personal experience at the company with the practice of removing clamp screws prior to installation over several years. Respondent did not contest the validity of the employees’ statements, other than to note the time since Employees 4 and 5 were involved in the installation of the couplings. At a minimum, the evidence demonstrates employees at Enbridge had removed clamp screws prior to installing Weld+Ends couplings and that this occurred with enough regularity that some employees considered it “the practice.”

Enbridge further contended that its training and operator qualification programs had satisfied the company’s obligation to review employee work under § 195.402(c)(13). The company listed individuals that had been trained and qualified to install Weld+Ends couplings, providing details regarding its training and qualification program. Enbridge noted that its qualification program required observations of task performance.

Training and qualification reviews performed for the purpose of evaluating an individual’s knowledge and ability to perform a task do not constitute compliance with § 195.402(c)(13). The regulation requires each operator to have and follow written procedures for periodically reviewing the work done by operator personnel to determine *the effectiveness of the operating and maintenance procedures* and for taking corrective action where deficiencies are found to ensure safety during operations and maintenance. I have reviewed the extent to which Respondent reviewed employee work during personnel training and operator qualifications, however, there is no evidence that the work reviews conducted for personnel training and qualification purposes were performed for the purpose of determining the effectiveness of the Weld+Ends installation procedures themselves. Respondent did not submit documentation that it had evaluated the procedures, nor is there any evidence in the record that Enbridge took corrective action to address apparent deficiencies in its procedures that had led personnel to believe they were permitted to remove clamp screws prior to installation. Therefore, reviewing work for purposes of training and qualification was not an adequate substitute for complying with § 195.402(c)(13).

In addition, Enbridge explained that the company had not experienced a prior incident related to the installation of at least 167 other Weld+Ends couplings. Respondent contended the absence of prior accidents demonstrates that the company had reviewed the work performed by personnel as required under § 195.402(c)(13). Enbridge also included evidence of several specific Weld+Ends couplings that it verified were installed properly.

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<sup>12</sup> Brief at 10. Enbridge also claimed that a number of other employees, who are not referenced above as “Employees 1 through 7” had no personal experience conducting Weld+Ends coupling installations.

<sup>13</sup> Brief at 10.

The absence of prior accidents and evidence that certain couplings were installed properly do not demonstrate that the company reviewed the work to determine the effectiveness of the procedures. The accident that occurred in this case was a result of multiple factors, not only the improper removal of some clamp screws. Therefore, it does not follow that had another coupling been improperly installed, there would have definitely been another accident. Furthermore, as Respondent noted in its Brief, clamp screws may not always bear an axial load if the pipe is completely anchored during installation.<sup>14</sup> The absence of prior accidents does not prove that Enbridge actually performed work performance reviews to determine the effectiveness of its procedures.

Enbridge also argued that the installation of Weld+Ends couplings with missing clamp screws and the failure to check torque values are not necessarily inconsistent with Enbridge's procedures if the pipe is fully anchored, because there would be no axial load transferred by the couplings. This argument is presumably made to imply that even if the company had periodically reviewed the installation of Weld+Ends couplings, its procedures were effective and did not require any corrective action.

I determined above, however, that removal of clamp screws and failure to check torque values were not in accordance with Respondent's written procedures, which required the company to "[d]ouble-check all clamp screws to ensure each has received the specified torque."<sup>15</sup> The manufacturer's procedures for installing the couplings also required the company to "[c]heck all the clamp screws to make certain each has been tightened to the minimum torque specified in the chart below."<sup>16</sup> Enbridge's removal of clamp screws prior to installing Weld+Ends couplings demonstrates the procedures had not been consistently implemented, and that the company had not determined the procedures were deficient based on a review of work performed.

Finally, Respondent contended that § 195.402(c)(13) requires only that operators review work "periodically," and therefore Enbridge was not actually required to conduct a review of the Weld+Ends couplings installation "on November 28, 2007, or at any specific time prior."<sup>17</sup>

There is no evidence that Respondent ever conducted periodic reviews of Weld+Ends coupling installations in order to determine the effectiveness of the applicable procedures. Section 195.402(c)(13) is a performance standard that requires operators to have and follow procedures for conducting reviews at a sufficient frequency to ensure the effectiveness of its procedures and to provide safety during operations and maintenance. Had Enbridge actually conducted the necessary reviews at an established interval for the purpose of determining the effectiveness of its procedures, I could evaluate whether or not that interval was adequate for § 195.402(c)(13).

Accordingly, after considering all of the evidence, I find that Respondent violated § 195.402(a) and (c)(13) by failing to periodically review the work performed by its personnel to determine

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<sup>14</sup> Brief at 10.

<sup>15</sup> Violation Report, Exhibit D2, Enbridge Procedure 06-03-13, at 3. Enbridge's procedures also required the company to "[s]nug all the clamp screws evenly . . . ." *Id.* at 2.

<sup>16</sup> Violation Report, Exhibit D1, Plidco Weld+Ends Installation Instructions, at 5.

<sup>17</sup> Brief at 11.



the effectiveness of the company's procedures for installing Weld+Ends couplings and to take corrective action to address deficiencies.

**Item 4:** The Notice alleged that Respondent violated 49 C.F.R. § 195.406(a)(2) and (b), which state:

**§ 195.406 Maximum operating pressure.**

(a) Except for surge pressures and other variations from normal operations, no operator may operate a pipeline at a pressure that exceeds any of the following . . .

(2) The design pressure of any other component of the pipeline . . .

(b) No operator may permit the pressure in a pipeline during surges or other variations from normal operations to exceed 110 percent of the operating pressure limit established under paragraph (a) of this section. Each operator must provide adequate controls and protective equipment to control the pressure within this limit.

The Notice alleged that Respondent violated § 195.406(a)(2) and (b) by operating its pipeline at a pressure that exceeded the design pressure of the Weld+Ends couplings on November 28, 2007. Specifically, the Notice alleged that the manufacturer's installation instructions as well as Enbridge's written procedures had designated the maximum working pressure of the couplings on unanchored pipe to be approximately 74 psig (although Respondent's removal of clamp screws prior to installation effectively reduced this limit). On November 28, 2007, the working pressure of the pipeline was allowed to increase over 74 psig until at least one of the couplings failed at a pressure of approximately 282 psig. The operation of the pipeline at 282 psig also exceeded 110 percent of the maximum working pressure.

In its Response and Brief, Enbridge did not contest this allegation of violation. Accordingly, after considering the evidence, I find that Respondent violated 49 C.F.R. § 195.406(a)(2) and (b) by operating its pipeline at a pressure that exceeded the design pressure of the couplings on unanchored pipe and that exceeded 110 percent of the maximum working pressure.

**Item 5:** The Notice alleged that Respondent violated 49 C.F.R. § 195.422(a), which states:

**§ 195.422 Pipeline repairs.**

(a) Each operator shall, in repairing its pipeline systems, insure that the repairs are made in a safe manner and are made so as to prevent damage to persons or property.

(b) No operator may use any pipe, valve, or fitting, for replacement in repairing pipeline facilities, unless it is designed and constructed as required by this part.

The Notice alleged that Respondent violated § 195.422(a) by failing to repair its pipeline in a safe manner to prevent injury to persons and damage to property. As described more fully above, Enbridge attempted to complete a repair on its pipeline near Clearbrook, Minnesota, on November 28, 2007, by installing a new 11-foot section of pipe using Weld+Ends couplings. As the flow of crude oil through the pipeline started, one of the couplings slipped, allowing the discharge of crude oil, which subsequently ignited. The two primary causes of the accident were

the failure of the Weld+Ends couplings, described above, and the presence of an ignition source at the excavation site. An open flame heater had been positioned at the edge of the excavation to provide heat to the crew during the repair. “The safety zone established during the restart of Line 3 was inadequate due to the presence of an open flame heater.”<sup>18</sup> The resulting fire caused the deaths of two Enbridge employees and property damage to the pipeline and construction equipment.

In its Response and Brief, Enbridge did not contest this allegation of violation. Accordingly, after considering the evidence, I find that Respondent violated 49 C.F.R. § 195.422(a) by failing to repair its pipeline in a safe manner to prevent injury to persons and damage to property.

**Item 6:** The Notice alleged that Respondent violated 49 C.F.R. § 195.422(b), quoted above, by failing to use fittings for the repair project that were designed and constructed in accordance with 49 C.F.R. Part 195. Specifically, the Notice alleged that the two couplings used by Enbridge on November 28, 2007, were not designed and constructed in accordance with § 195.118(c), which requires that each “fitting must be suitable for the intended service and be at least as strong as the pipe and other fittings in the pipeline system to which it is attached.” The two couplings used by Enbridge had been improperly modified prior to installation by removing approximately half of the clamp screws. The Notice alleged that such modifications significantly reduced the pull-out resistance of the couplings, making them unsuitable for their intended service and not as strong as the pipe and other fittings in the system.

In its Response and Brief, Enbridge did not contest the allegation of violation “in so far as the procedures it followed on November 28, 2007 were not consistent with an unanchored pipe setting.”<sup>19</sup>

The evidence demonstrates that the two couplings used by Enbridge had been modified prior to installation by removing approximately half of the clamp screws. This modification “had a direct bearing on the available restraint, support, or anchoring” of the pipe and coupling.<sup>20</sup> The failure of one of the couplings “occurred as a result of inadequate restraint that allowed the Weld+Ends Coupling to slip sufficiently resulting in the release of crude oil.”<sup>21</sup> Accordingly, after considering the evidence, I find that Respondent violated 49 C.F.R. § 195.422(b) by failing to use fittings that were suitable for the intended service and at least as strong as the pipe and other fittings in the pipeline system.

**Item 7:** The Notice alleged that Respondent violated 49 C.F.R. § 195.505(e), which states:

**§ 195.505 Qualification program.**

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

(e) Evaluate an individual if the operator has reason to believe that the individual is no longer qualified to perform a covered task . . . .

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<sup>18</sup> Violation Report, Exhibit E, Enbridge Investigation Report, at 11.

<sup>19</sup> Brief at 12.

<sup>20</sup> Violation Report, Exhibit E, Enbridge Investigation Report, at 10.

<sup>21</sup> Violation Report, Exhibit E, Enbridge Investigation Report, at 9.

The Notice alleged that Respondent violated § 195.505(e) by failing to follow its written qualification procedures for evaluating covered task changes to determine if employees were no longer qualified to perform a covered task.<sup>22</sup> Specifically, the Notice alleged that Enbridge's written operator qualification (OQ) plan required the company to assess changes affecting covered tasks to determine if employees must be re-qualified, but that Respondent failed to assess the changes made to its OQ plan in October 2007 to determine whether elimination of the covered task "Pipeline Repair (Task 40)" and the addition of separate covered tasks for the various types of pipeline repairs required employees to be re-qualified.<sup>23</sup>

The Notice further alleged that on November 28, 2007, the employees participating in the repair activity had been qualified under the former "Pipeline Repair" covered task based on an evaluation of their performance during the installation of repair sleeves, but that they had not been qualified on their knowledge and performance regarding Weld+Ends couplings. The individuals nevertheless were considered by Enbridge to be qualified for all pipeline repairs, including Weld+Ends coupling installation.

In its Response, Enbridge indicated that it did not intend to contest the merits of the allegation. In its Brief, however, the company contended that it had complied with § 195.505(e) by evaluating whether its employees needed to be re-qualified following the changes to the OQ plan in October 2007. Respondent explained that it had concluded as a result of the assessment "that Enbridge did not immediately have to re-qualify any of its employees for any of the separate covered tasks, [but that] any such re-qualification would take place when it was convenient, not necessarily immediate, or prior to any Enbridge employee actually performing any of the covered tasks, including the installation of Weld+Ends couplings task."<sup>24</sup> At the hearing, Respondent further indicated that some of the employees on-site November 28, 2007, had been qualified "on all of the repair tasks," and that some of them also had "been involved in the installation of Weld+Ends couplings in the past."<sup>25</sup>

After a review of the evidence, I note that Enbridge's OQ plan specified that "[c]hanges, which affect covered tasks, will be assessed by the plan administrator to determine if re-qualification is necessary. If re-qualification is required, all affected individuals will be notified and re-qualified by their supervisors/evaluators."<sup>26</sup> While Respondent indicated in its Brief and at the hearing that the company performed such an assessment to determine if individuals needed to be re-qualified following the changes to its OQ plan, I find an absence of evidence in the record

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<sup>22</sup> An employee is "qualified" to perform a covered task if the individual has been evaluated by the operator and determined to be able to perform the assigned covered task and recognize and react to abnormal operating conditions. § 195.503. A "covered task" is a pipeline operations or maintenance activity, identified by the operator, that is performed as a requirement of Part 195 and that affects the operation or integrity of the pipeline. § 195.501.

<sup>23</sup> Violation Report, Exhibit F4, email and task list from Enbridge Qualifications Coordinator dated Nov. 8, 2007.

<sup>24</sup> Brief at 13-14. *See also* Transcript at 102-108. Enbridge's Vice President of Operations explained at the hearing that the company had recognized there might not be an opportunity for all of its employees to observe installation of Weld+Ends couplings because the company did not use them very often. The company was considering other opportunities for employees including training from the manufacturer.

<sup>25</sup> Transcript at 107.

<sup>26</sup> Violation Report, Exhibit F2, Enbridge OQ Plan (Mar. 1, 2007), Section 9.3.1, "Covered Task Changes," at 21.

supporting that assertion.<sup>27</sup> Notably absent from the record is any written assessment or other documentation demonstrating that Respondent evaluated whether employees' previous qualifications under the former "Pipeline Repair" covered task included the performance evaluations necessary to qualify them for the specific covered task of installing Weld+Ends couplings.

For example, the evidence in the record demonstrates that under the former "Pipeline Repair" covered task, no specific technical training had been required for employees to be qualified to install Weld+Ends couplings.<sup>28</sup> Personnel qualification records for individuals on-site at the time of the accident indicated that the employees were considered qualified for all pipeline repairs based solely on an evaluation of their installation of tight fitting repair sleeves. None of the employees had been qualified through evaluations specific to the installation of Weld+Ends couplings, such as verbal review of task procedures or observation of task performance, either real or simulated.<sup>29</sup>

Furthermore, although Respondent indicated that the company had concluded that re-qualifications of the individuals would take place "prior to any Enbridge employee actually performing any of the covered tasks, including the installation of Weld+Ends couplings task," the company had not re-qualified the employees that were on-site on November 28, 2007.<sup>30</sup>

As stated in the Notice, the installation of Weld+Ends couplings requires a certain set of knowledge, skills, and abilities, particularly with regard to properly installing clamp screws, ensuring anchoring and support, and selecting working pressures. After amending its OQ plan, Enbridge was required to verify that individuals performing the installation of Weld+Ends couplings could perform the covered task safely and could recognize and react to abnormal operating conditions. There is no record of Enbridge evaluating whether the October 2007 change to its OQ plan required individuals to be re-qualified in order to install Weld+Ends couplings.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.505(e) by failing to follow its written qualification procedures for evaluating covered task changes to determine if the employees that would perform the pipeline repair project at MP 912 had to be re-qualified in order to install the Weld+Ends couplings.

**Item 8:** The Notice alleged that Respondent violated 49 C.F.R. § 195.505(h), which states:

**§ 195.505 Qualification program.**

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

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<sup>27</sup> Enbridge is required to maintain records that demonstrate compliance with § 195.505(e) pursuant to the recordkeeping requirement in § 195.507.

<sup>28</sup> Violation Report, Exhibit E, Enbridge Investigation Report, at 12.

<sup>29</sup> Violation Report, Exhibit F5, Enbridge Operator Qualification Evaluation Records.

<sup>30</sup> Brief at 13-14. Enbridge indicated at the hearing that at least one contractor was "qualified" for Weld+Ends, but Enbridge acknowledged the individual had not been qualified under Enbridge's OQ plan, and further acknowledged that Enbridge did not permit contractors to install Weld+Ends couplings. Transcript at 109-111. For this reason, I do not give the contractors' qualifications further consideration.

(h) After December 16, 2004, provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities . . . .

The Notice alleged that Respondent violated § 195.505(h) by failing to provide training after December 16, 2004, to ensure that individuals installing Weld+Ends couplings had the knowledge and skills necessary to perform the task in a safe manner. Training and OQ records for the Enbridge personnel who were on-site during the installation project allegedly demonstrated that only four of the employees had been trained on Weld+Ends couplings, and that their training had not been conducted after December 16, 2004. The Notice also alleged that employees on-site for the installation project were not sufficiently familiar with clamp bolt and thrust bolt torque requirements, piping restraint and support requirements, and operating pressure requirements pertaining to Weld+Ends couplings, demonstrating they did not have the knowledge and skills necessary to perform the task in a manner that ensures safety.

In its Response, Enbridge indicated that it did not intend to contest the merits of the allegation. In its Brief, however, the company contended that it had complied with § 195.505(h) by providing training for the individuals to be qualified under the former “Pipeline Repair” covered task. Enbridge asserted that nothing in the regulation required the company to specifically train its employees for Weld+Ends couplings. Respondent asserted further that § 195.505(h) required only that employees be trained for covered tasks listed in the OQ Plan, which at that time had a single covered task for all pipeline repairs. Enbridge explained that “[u]nder this OQ regime, Enbridge employees could be performance evaluated, for example, only on installation of tight fitting repair sleeves, and as such, be considered qualified for Pipeline Repair (Task 40), though the employee may not have been specifically performance evaluated on any of the other activities under Pipeline Repair (Task 40), including installation of Weld+Ends couplings.”<sup>31</sup>

Enbridge’s position is predicated on the assumption that § 195.505(h) only required training for a task if that activity had been identified as a separate covered task in the company’s OQ plan. Under this rationale, if the operator’s OQ plan did not identify Weld+Ends as a *separate* covered task, the company did not have to provide specific training for personnel to perform the activity. This is far too narrow a view of the regulatory requirement.

The installation of Weld+Ends couplings is a maintenance activity that is performed on a pipeline facility pursuant to 49 C.F.R. Part 195 and that affects the integrity of the pipeline. The activity involves specific knowledge, skills, and abilities to ensure the task is performed in a manner that ensures safety. Thus the activity is a “covered task,” as that term is defined in § 195.501, regardless of whether Enbridge had identified the activity separately in its OQ plan or whether it had lumped it together with other types of pipeline repairs into a combined OQ item. Since the installation of Weld+Ends couplings is a covered task, Enbridge was required to provide training for each individual performing the activity to ensure they had the necessary knowledge and skills to perform the task in a safe manner.

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<sup>31</sup> Brief at 13.

The record shows that Enbridge employees performing the installation of Weld+Ends couplings on November 28, 2007, had not been provided the required training for performance of this covered task. While several individuals had received some training in Weld+Ends, other individuals had only received training sufficient to support being qualified to perform other activities under "Pipeline Repair (Task 40)," and had not received specific training for Weld+Ends couplings, as mandated by the regulation.<sup>32</sup>

Enbridge also argued that PHMSA previously reviewed the company's OQ plan between 2004 and 2005 and did not take issue with the fact that pipeline repairs were combined together into a single covered task. PHMSA is not precluded from bringing a violation for conduct that was not previously identified during an inspection. Moreover, it may not have been clear that Enbridge believed § 195.505(h) did not require the company to provide separate training on Weld+Ends couplings installation. Section 195.505(h) requires the company to provide training for each covered task, regardless of whether the activity is identified separately in the OQ plan or combined with other activities.

After considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.505(h) by failing to have and follow provisions in its written qualification program to provide training, as appropriate, to ensure that individuals performing the installation of Weld+Ends couplings had the necessary knowledge and skills to perform the task in a manner that ensures the safe operation of the pipeline facility.

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. The Notice proposed a total civil penalty of \$2,405,000 for the eight violations identified above.

In determining the amount of a civil penalty under 49 U.S.C. § 60122 and 49 C.F.R. § 190.225, I must consider the following criteria: the nature, circumstances, and gravity of the violation, including adverse impact on the environment; 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. In addition, I may consider the economic benefit gained from the violation without any reduction because of subsequent damages, and such other matters as justice may require.

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<sup>32</sup> The Notice seemed to imply that any training provided by Enbridge prior to December 16, 2004, could not have satisfied the requirement in § 195.505(h) by virtue of its timing. I decline to interpret the regulation in that manner, but note the facts demonstrate that certain individuals on-site for the installation project had not received any specific training for Weld+Ends couplings, regardless of timing, and that even those who apparently had received training did not have the knowledge and skills necessary to perform the task in a manner that ensured safety.

In its Brief, Enbridge argued that some of the penalty assessment criteria had not been given appropriate consideration and requested that the civil penalty be reduced. First, Respondent contended that PHMSA had not considered the good faith of Enbridge in attempting to achieve compliance with the pipeline safety regulations prior to the accident. Respondent asserted that it had company departments whose responsibility was to ensure regulatory compliance and to manage the integrity of its pipeline. The company also explained that it had routinely arranged “pre-audits” with PHMSA in advance of its regular PHMSA inspections.<sup>33</sup>

Second, Respondent contended that the agency had not properly considered certain “other matters as justice may require.” Enbridge suggested such matters should include its efforts immediately following the accident to investigate and determine causation, implement interim procedures to address issues from the accident investigation, prevent reoccurrence, and fully cooperate with PHMSA. I address Respondent’s good faith and “other matters” arguments below for each item.

Third, Respondent contended that the civil penalty does not appear to have taken into account evidence and testimony regarding its efforts to fulfill the terms of the proposed compliance order. I address the extent to which Respondent may have fulfilled such terms below in the Compliance Order section, but with respect to the civil penalty, I find the evidence of corrective measures taken after issuance of the Notice does not serve to reduce the proposed penalty.

Finally, Respondent contended that the civil penalty amount set forth in the Notice exceeds the maximum penalty permitted by statute. In particular, Enbridge argued that Items 1, 2, 3, 4, 6, 7, and 8 were all one related series of violations, because the violations were all based on the allegation that the company failed to install couplings properly on the date of the accident. Respondent explained that “the entire sequence of the overlapping and cumulative events that underlie [the Items] constitute a related series of violations.”<sup>34</sup>

Administrative civil penalty assessments by PHMSA are governed by the following provision of 49 U.S.C. § 60122(a)(1), as well as 49 C.F.R. § 190.223(a):

A person that the Secretary of Transportation decides, after written notice and an opportunity for a hearing, has violated section 60114(b), 60114(d), or 60118(a) of this title or a regulation prescribed or order issued under this chapter is liable to the United States Government for a civil penalty of not more than \$100,000 for each violation. A separate violation occurs for each day the violation continues. The maximum civil penalty under this paragraph for a related series of violations is \$1,000,000.

As set forth previously by this agency, “a related series of violations” means a series of daily violations in light of the sentence that comes before it.<sup>35</sup> In *Colorado Interstate Gas*, PHMSA explained that multiple violations listed in a single Notice of Probable Violation do not constitute

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<sup>33</sup> Brief at 16.

<sup>34</sup> Brief at 16.

<sup>35</sup> *In the Matter of Colorado Interstate Gas Co.*, Final Order, CPF 5-2008-1005, 2009 WL 5538649, at 11 (Nov. 23, 2009) (cases are also available online at “<http://www.phmsa.dot.gov/pipeline/enforcement>”).

a “related series” just because they all involve the same subject matter or were all contributing factors in the same pipeline accident. PHMSA stated further that “[n]othing in this statute prohibits PHMSA from assessing total civil penalties of over \$1,000,000 in a case as long as the violations are separate.”<sup>36</sup>

PHMSA noted, however, that certain violations in a Notice of Probable Violation may be so related that they constitute a single offense for which the agency should not assess combined penalties exceeding the applicable cap. In determining whether two or more violations are so closely related, the decision in *Colorado Interstate Gas* evaluated “whether each [Notice Item] can stand alone and has its own evidentiary basis, or whether any two or more are so closely related (i.e., same evidentiary basis) that they are not separate and should be considered one violation for purposes of applying the [penalty cap].”<sup>37</sup> Using this approach, I evaluate each of the following Notice Items and apply the above-referenced penalty assessment criteria.

**Item 1:** The Notice proposed a civil penalty of \$100,000 for Respondent’s violation of 49 C.F.R. § 195.402(a). As discussed above, I found that Enbridge violated the regulation by failing to follow its written procedures for the installation of Weld+Ends couplings. Those procedures required Enbridge to tighten all clamp screws evenly around the pipe and to ensure certain torque specifications listed in the procedure. Enbridge personnel had removed approximately one half of the clamp screws on the couplings prior to installation and also failed to ensure proper torque had been applied to the clamp and thrust screws. The failure to follow such installation procedures contributed to the slipping of at least one of the couplings, allowing the discharge of crude oil, which ignited causing the deaths of two employees and property damage. This violation was a causal factor in the accident. For these reasons, I find the nature, circumstances, and significant gravity of the violation justify the proposed civil penalty.

I have considered the above-referenced assertions by Enbridge regarding good faith, but find that its statements of general processes in place to manage compliance and pipeline integrity do not demonstrate a specific attempt to comply with an otherwise clear requirement to follow its procedures for installing Weld+Ends couplings. I have also considered the “other matters” suggested by Enbridge, but find that the efforts by the company following the accident were in many respects already required under the pipeline safety regulations<sup>38</sup> and otherwise would be expected of any prudent operator following an accident. Therefore these actions do not warrant reducing the penalty. This violation involves a failure to install fittings in accordance with certain procedures, and is not so related to any other violation that they constitute a single offense for purposes of the penalty cap.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$100,000 for the violation of 49 C.F.R. § 195.402(a).

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<sup>36</sup> *Colorado Interstate Gas Co.* at 11.

<sup>37</sup> *Colorado Interstate Gas Co.* at 12.

<sup>38</sup> See, e.g., §§ 195.60 (requiring operators to afford all reasonable assistance in the investigation of an accident by PHMSA) and 195.402(c)(5)-(6) (requiring operators to analyze pipeline accidents to determine their causes and to minimize the possibility of recurrence of such accidents).



**Item 2:** The Notice proposed a civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.402(a). As discussed above, I found that Enbridge violated the regulation by failing to follow its written procedures for anchoring the pipeline prior to increasing pressure beyond a certain limit. Enbridge had not protected the pipe from movement in all directions, and the failure to anchor the pipeline contributed to the slipping of at least one of the couplings, allowing the discharge of crude oil, which ignited causing the deaths of two employees and property damage. This violation was a causal factor in the accident. For these reasons, I find the nature, circumstances, and significant gravity of the violation justify the proposed civil penalty.

I have considered the above-referenced assertions by Enbridge regarding good faith, but find that its statements of general processes do not demonstrate a specific attempt to comply with an otherwise clear requirement to follow its procedures for ensuring proper anchoring of the pipe. I have also considered the other matters, but as stated above, find that the company's efforts were in many respects already required and otherwise do not justify reducing the penalty. This violation involves a failure to anchor the pipe in accordance with certain procedures, and is not so related to any other violation that they constitute a single offense for purposes of the penalty cap.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$100,000 for the violation of 49 C.F.R. § 195.402(a).

**Item 3:** The Notice proposed a civil penalty of \$1,000,000 for Respondent's violation of 49 C.F.R. § 195.402(a) and (c)(13). As discussed above, I found that Enbridge violated the regulation by failing to periodically review the work performed by its personnel to determine the effectiveness of the company's procedures for installing Weld+Ends couplings. Over a number of years, Enbridge personnel often removed clamp screws on Weld+Ends couplings in advance of installation. Respondent did not perform periodic reviews of work to determine that this practice was occurring and failed to amend its procedures as necessary to prevent the practice from reoccurring. It was not until after the accident on November 28, 2007, during which at least one coupling failed due in part to clamp screws having been removed, that Enbridge changed the procedure. The failure to review the work performed by its personnel and to take action to prevent the improper practice of removing clamp screws contributed to the accident. For these reasons, I find the nature, circumstances, and significant gravity of the violation justify the proposed civil penalty.

I have considered the assertions by Enbridge regarding good faith, but find that its statements do not demonstrate a specific attempt to review the work performed by its personnel to determine the effectiveness of the company's procedures for installing Weld+Ends couplings. I have also considered the other matters suggested by Enbridge, but as stated above, such efforts do not justify reducing the penalty. This violation involves a failure to review work over a number of years to determine the effectiveness of procedures and to take corrective action to ensure safe maintenance practices, and is not so related to any other violation that they constitute a single offense for purposes of the penalty cap. This was a continuing violation for which the penalty is capped by 49 U.S.C. § 60122(a)(1).

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$1,000,000 for the violation of 49 C.F.R. § 195.402(a) and (c)(13).

**Item 4:** The Notice proposed a civil penalty of \$36,000 for Respondent's violation of 49 C.F.R. § 195.406(a)(2) and (b). As discussed above, I found that Enbridge violated the regulation by operating its pipeline at a pressure that exceeded the design of the couplings. The nature and circumstances of this violation demonstrate that it was a consequence of Enbridge's actions in Items 1 and 2, rather than a unique causal factor in the accident. For these reasons, I find the nature, circumstances, and gravity of the violation justify the proposed civil penalty.

I have considered the assertions by Enbridge regarding good faith, but find that the general processes do not demonstrate a specific attempt to maintain operating pressure within the designated limit for unanchored pipe. I have also considered the other matters suggested by Enbridge, but as noted above, the company's efforts after the accident do not warrant reducing the penalty. This violation involves a failure to keep operating pressure below designated limits, and is not so related to any other violation that they constitute a single offense for purposes of the penalty cap.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$36,000 for the violation of 49 C.F.R. § 195.406(a)(2) and (b).

**Item 5:** The Notice proposed a civil penalty of \$100,000 for Respondent's violation of 49 C.F.R. § 195.422(a). As discussed above, I found that Enbridge violated the regulation by failing to repair its pipeline in a safe manner to prevent injury to persons and damage to property. During the pipeline replacement project, Respondent had placed an open flame heater in proximity to the excavation site, in addition to improperly installing the couplings and increasing pipeline pressure beyond the maximum working pressure for the couplings. The open flame ignited the discharged product causing the deaths of two employees and property damage. This violation was a causal factor in the accident. For these reasons, I find the nature, circumstances, and significant gravity of the violation justify the proposed civil penalty.

I have considered the assertions by Enbridge regarding good faith, but find that the general processes do not demonstrate a specific attempt to perform the pipeline repair project in a manner that prevented injury to persons and damage to property. I have considered the other matters suggested by Enbridge, but as noted above, the company's efforts after the accident do not warrant reducing the penalty. Respondent did not contend that this item was related to the others for purposes of the penalty cap.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$100,000 for the violation of 49 C.F.R. § 195.422(a).

**Item 6:** The Notice proposed a civil penalty of \$39,000 for Respondent's violation of 49 C.F.R. § 195.422(b). As discussed above, I found that Enbridge violated the regulation by failing to use fittings for the pipe replacement that were suitable for their intended service and at least as strong as the pipe to which it was attached. The couplings used by Enbridge had been improperly modified by removing clamp screws, which significantly reduced their pull-out resistance. The nature and circumstances of this violation demonstrate that it was a consequence of Enbridge's actions in Item 1, rather than a unique causal factor in the accident. For these reasons, I find the nature, circumstances, and gravity of the violation justify the proposed civil penalty.

I have considered the assertions by Enbridge regarding good faith, but find they do not demonstrate a specific attempt to use unmodified couplings that were suitable for the intended service and had the necessary strength. I have considered the other matters suggested by Enbridge, but as noted above, find that the company's efforts after the accident do not warrant reducing the penalty. This violation involves a failure to use couplings with the necessary strength and suitability for the pipeline, and is distinguished from Item 1, which involves certain written procedures and torquing requirements that are not at issue in this violation. Therefore this item is not so related to any other violation that they constitute a single offense for purposes of the penalty cap.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$39,000 for the violation of 49 C.F.R. § 195.422(b).

**Item 7:** The Notice proposed a civil penalty of \$30,000 for Respondent's violation of 49 C.F.R. § 195.505(e). As discussed above, I found that Enbridge violated the regulation by failing to assess whether employees needed to be re-qualified to install Weld+Ends couplings following changes to its OQ plan. Respondent had eliminated a single covered task that included all types of pipeline repairs and replaced it with separate covered tasks for the different repair activities. Respondent did not assess whether employees who had not previously been evaluated on the installation of Weld+Ends couplings, needed to be re-qualified before performing the covered task, and individuals installing Weld+Ends couplings on November 28, 2007, had not been evaluated on that task. The circumstances of this violation demonstrate that Respondent had just changed its OQ plan recently, and therefore I do not consider this violation to be a causal factor in the accident. For these reasons, I find the nature, circumstances, and gravity of the violation justify the proposed civil penalty.

I have considered the above-referenced assertions by Enbridge regarding good faith, but find they do not demonstrate a specific attempt to assess whether personnel needed to be re-qualified. I have also considered the other matters suggested by Enbridge, but as noted above, find that the company's efforts after the accident do not warrant reducing the penalty. This violation involves a failure to assess personnel qualifications after a change to the OQ plan, and is not so related to any other violation that they constitute a single offense for purposes of the penalty cap.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$30,000 for the violation of 49 C.F.R. § 195.505(e).

**Item 8:** The Notice proposed a civil penalty of \$1,000,000 for Respondent's violation of 49 C.F.R. § 195.505(h). As discussed above, I found that Enbridge violated the regulation by failing to have and follow a written program to provide training to ensure that individuals performing the installation of Weld+Ends couplings had the necessary knowledge and skills to perform the task in a safe manner. Employees on-site for the pipe repair and replacement project on November 28, 2007, were not sufficiently familiar with clamp bolt and thrust bolt torque requirements, piping restraint and support requirements, and operating pressure requirements pertaining to Weld+Ends couplings, demonstrating they did not have the knowledge and skills necessary to perform the task in a manner that ensures safety. The failure to provide training for the installation of such couplings contributed to the fatal accident that occurred when at least one of the couplings failed during the installation. For these reasons, I find the nature, circumstances, and significant gravity of the violation justify the proposed civil penalty.

I have considered the above-referenced assertions by Enbridge regarding good faith, but find they do not demonstrate an attempt to provide specific training for personnel on installing Weld+Ends couplings. I have also considered the other matters suggested by Enbridge, but as noted above, find that the company's efforts after the accident do not warrant reducing the penalty. This violation involves a failure to provide personnel training, and is not so related to any other violation that they constitute a single offense for purposes of the penalty cap. This was a continuing violation for which the penalty is capped by 49 U.S.C. § 60122(a)(1).

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$1,000,000 for the violation of 49 C.F.R. § 195.505(h).

Respondent is culpable for all of the above violations, meaning that the company, as the operator of the pipeline, bears the blame for the violations that occurred on its pipeline system. I have also considered the company's history of prior offenses, including three Notices of Probable Violation, one of which involved a pipeline accident and spill of approximately 9,000 gallons of crude oil near Stanley, North Dakota (CPF No. 3-2007-5022).<sup>39</sup> I find the history of prior offenses does not warrant reducing the proposed civil penalty. In addition, since Respondent did not provide any evidence suggesting the company is unable to pay the proposed civil penalty, I find Respondent is able to pay the penalty without adversely affecting its ability to continue in business.

In summary, having reviewed the record and considered the assessment criteria for each of the Items above, I assess Respondent a total civil penalty of **\$2,405,000**.

Payment of the civil penalty must be made within 20 days of receipt of this Final Order. Federal regulations (49 C.F.R. § 89.21(b)(3)) require this payment be made by wire transfer, through the Federal Reserve Communications System (Fedwire), to the account of the U.S. Treasury. Detailed instructions are contained in the enclosure. Questions concerning wire transfers should be directed to: Financial Operations Division (AMZ-341), Federal Aviation Administration, Mike Monroney Aeronautical Center, P.O. Box 269039, Oklahoma City, OK 73125; The Financial Division's telephone number is (405) 954-8893.

Failure to pay the \$2,405,000 civil penalty will result in accrual of interest at the current annual rate in accordance with 31 U.S.C. § 3717, 31 C.F.R. § 901.9, and 49 C.F.R. § 89.23. Pursuant to those same authorities, a late penalty charge of six percent (6%) per annum will be charged if payment is not made within 110 days of service. Furthermore, failure to pay the civil penalty may result in referral of the matter to the Attorney General for appropriate action in a United States District Court.

### **COMPLIANCE ORDER**

The Notice proposed a compliance order with respect to Items 1, 2, 3, 4, 7 and 8 in the Notice for the violations described above.

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<sup>39</sup> *In the Matter of Enbridge Pipelines LLC--North Dakota*, Final Order, CPF 3-2007-5022, 2009 WL 2336996 (June 2, 2009). The other two cases are CPFs 3-2004-1007 and 4-2007-2001.

By letter dated December 1, 2009, Enbridge submitted information regarding the actions taken by the company that it believed complied with all of the provisions of the proposed compliance order. The Director has reviewed the information submitted by Enbridge and based on that review I find that although the information indicates Enbridge has initiated action towards compliance with the terms of the compliance order, the submission lacked documentation confirming that the items have been completed. For example, there is an absence of evidence demonstrating formal adoption and implementation of new and revised procedures, and an absence of documentation demonstrating the completion of necessary training and qualifications for appropriate personnel. For these reasons, I find the compliance order has not been satisfied and that Respondent must complete the measures specified below and submit documentation demonstrating completion.

Under 49 U.S.C. § 60118(a), each person who engages in the transportation of hazardous liquids by pipeline or who owns or operates a hazardous liquid pipeline facility is required to comply with the applicable safety standards established under chapter 601. Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to its operations:

1. With respect to the violation of § 195.402(a) (**Item 1**), Respondent must review its procedures for using Plidco Weld+Ends couplings, and based on that review, revise or supplement the procedures as necessary to ensure the safe installation of the couplings. The procedures must ensure that unauthorized modifications of the component, such as cutting off clamp bolts on the couplings, do not occur. Communicate the latest procedures to the appropriate personnel and take measures to ensure that future installations of the couplings are performed accordingly.
2. With respect to the violation of § 195.402(a) (**Item 2**), Respondent must review its procedures for assessing and determining whether pipe is fully anchored to prevent movement in all directions while undergoing repairs at specified working pressures. Based on that review, revise or supplement the procedures as necessary to ensure proper anchoring of pipe when performing repairs and coupling installations on pressurized lines. Communicate the latest procedures to the appropriate personnel and take measures to ensure that future assessments of pipe anchoring are performed accordingly.
3. With respect to the violation of § 195.402(a) and (c)(13) (**Item 3**), Respondent must develop or revise existing procedures for reviewing the work performed by its personnel to determine the effectiveness of its repair procedures. The procedures must provide for reviewing repair procedures, observing work performance, and consulting with field personnel to identify any ineffective or inconsistently implemented repair procedures. The procedures must also provide for incorporating the information from such reviews into the periodic updates to Enbridge's procedural manual and training programs. Review current repair procedures to identify any ineffective or inconsistently implement procedures and take necessary action to address.

4. With respect to the violation of § 195.406(a)(2) and (b) (**Item 4**), Respondent must take measures to ensure that appropriate personnel have knowledge about the proper technique for pressurizing a pipeline that is undergoing a repair, including the manner in which safe pressure limits are calculated for various anchoring conditions. The technique must ensure that pressure does not exceed the design limit of the repair component at the time of the pressurization, and does not exceed 110 percent of that limit during surges or other variations from normal operations. Include the technique in Enbridge's manual of written procedures.
5. With respect to the violation of § 195.505(e) (**Item 7**), Respondent must qualify each individual who will be permitted to perform the covered task of installing Weld+Ends couplings on Enbridge's pipeline system. Individuals who were qualified to perform pipeline repairs under Enbridge's OQ plan prior to November 2007 must be re-qualified to install Weld+Ends couplings, unless Enbridge can demonstrate an individual has a current qualification that meets the requirements of § 195.505 specifically for Weld+Ends couplings.
6. With respect to the violation of § 195.505(h) (**Item 8**), Respondent must include in its written qualification program provisions to provide appropriate training to ensure that individuals performing the covered task of installing Weld+Ends couplings have the necessary knowledge and skills to perform the task in a manner that ensures the safe operation of the pipeline facility. Enbridge must provide such training to individuals who will be permitted to install Weld+Ends couplings on Enbridge's pipeline system.
7. Within 45 days of receipt of this Final Order, submit to the Director for written approval a schedule for completing the above-listed actions. Upon approval by the Director, Enbridge must complete the terms of this Compliance Order in accordance with that schedule and submit documentation of completion to the Director. Documentation of compliance includes, but may not be limited to: revised and supplemental procedures; documentation of work performance reviews for personnel; documentation of employee qualifications; training materials utilized; and documentation that training has been provided to personnel. Documentation shall be submitted to the Director, Central Region, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, 901 Locust Street, Suite 462, Kansas City, MO 64106.
8. Enbridge shall perform the above required activities prior to using Weld+Ends couplings on its pipeline system, unless the Director provides otherwise in writing.
9. Maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to the Director. Costs shall be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.

The Director may grant an extension of time to comply with any of the required items upon a written request timely submitted by the Respondent demonstrating good cause for an extension.


The required items are in addition to and do not waive any requirements that apply to Enbridge's pipeline system under 49 C.F.R. Part 195, under any other order issued to Enbridge under authority of 49 U.S.C. § 60101 et seq., or under any other provision of Federal or State law.

Failure to comply with this Order may result in administrative assessment of civil penalties not to exceed \$100,000 for each violation for each day the violation continues or in referral to the Attorney General for appropriate relief in a district court of the United States.

Under 49 C.F.R. § 190.215, Respondent has a right to submit a Petition for Reconsideration of this Final Order. A petition must be sent to the Associate Administrator, Office of Pipeline Safety, PHMSA, 1200 New Jersey Avenue, SE, East Building, 2nd Floor, Washington, DC 20590, with a copy sent to the Office of Chief Counsel, PHMSA, at the same address. PHMSA will accept petitions received no later than 20 days after receipt of this Final Order by the Respondent, provided they contain a brief statement of the issue(s) and meet all other requirements of 49 C.F.R. § 190.215. The filing of a petition automatically stays the payment of any civil penalty assessed. All other terms of the order, including any required corrective action, shall remain in full force and effect unless the Associate Administrator, upon request, grants a stay. 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

  
Date Issued