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October 2, 2015

R. M. Seeley, Director Southwest Region
PHMSA Pipeline Safety
8701 S. Gessner Dr.
Suite 1110
Houston, TX 77074
713-272-2859

SUBMITTED VIA ELECTRONIC TRANSMISSION

**Re: Enbridge Storage (Cushing) L.L.C.
Response to NOPV
CPF 4-2015-5016**

Dear Mr. Seeley:

Please consider this letter and the supporting exhibits as the response of Enbridge Storage (Cushing) L.L.C. ("Enbridge") to the Notice of Probable Violation ("NOPV"), Proposed Civil Penalty, and Proposed Compliance Order (collectively, the "Notice") issued by the Pipeline and Hazardous Materials Safety Administration ("PHMSA") on August 25, 2015, in Docket No. CPF 4-2015-5016. Enbridge received the Notice on September 3, 2015, and PHMSA confirmed that the deadline to respond is October 3, 2015.

Enbridge objects to the allegations set forth in the Notice that it violated 49 C.F.R. § 195.214, and further objects to the proposed civil penalty and proposed compliance order. In accordance with 49 C.F.R. § 190.209(a)(2) and (b)(3), Enbridge provides a written explanation in support of its position. Enbridge does not request a hearing.

Background

On April 21 and 22, 2015, representatives of PHMSA conducted an onsite inspection of the procedures and records related to the Enbridge BP/Amoco Piping Modification Project ("Project"). Contrary to the Notice, this was the only inspection that PHMSA performed related to the Project.

PHMSA's inspection focused on one specific weld that was started by one crew of welders using a qualified welding procedure specification (WPS) 106LT (copy attached for reference as Exhibit 1) with welders qualified per API 1104 to weld the same, and subsequently finished by a different crew utilizing qualified WPS DB48 (copy attached for reference as Exhibit 2) with welders qualified per ASME IX to perform that weld.

Response to the Allegation that Enbridge Violated Section 195.214

Following the inspection, PHMSA issued a single-item NOPV alleging that Enbridge violated section 195.214, which provides:

§ 195.214 Welding procedures.

(a) Welding must be performed by a qualified welder in accordance with welding procedures qualified under Section 5 of API 1104 or Section IX of the ASME Boiler and Pressure Vessel Code (incorporated by reference, *see* § 195.3). The quality of the test welds used to qualify the welding procedure shall be determined by destructive testing.

(b) Each welding procedure must be recorded in detail, including the results of the qualifying tests. This record must be retained and followed whenever the procedure is used.

For the following reasons, Enbridge acted in compliance with section 195.214.

The Notice alleges that “Enbridge failed to ensure that welding was performed by a qualified welder in accordance with qualified welding procedures for the BP/Amoco Project.” Contrary to the Notice, and as evidenced by the attached welder qualification records, all welders were qualified to the respective procedure that they were performing and all procedures were qualified under API 1104 or ASME IX with the quality of the test welds determined by destructive testing (see Exhibits 3, 4 and 5).

Section 195.214 mandates that weld procedures and welders must be qualified, tested, and recorded in accordance with API 1104 or ASME IX standards (CFR referenced editions). It does not, however, contain a prohibition against the use of more than one such procedure or one such welder in a given joint. In this case, both welds were qualified in accordance with the referenced standards and all welders were qualified to perform the procedures they were executing.

The API 1104 WPS 106LT contained a 15-minute maximum interpass time between the first (root) and the second (hot) passes - an essential variable per API 1104 Section 5.4.2.8. The ASME IX WPS DB-48 contained a requirement to commence the hot pass within 5 minutes of completing the root pass as an engineering best practice requirement for avoidance of hydrogen cracking in the vulnerable lone root pass, but this is not an essential variable for SMAW welding per ASME IX QW-253. When welding resumed after the delay, DB-48 was the governing procedure. Since the maximum interpass time of DB-48 was not an essential variable per the governing standard (ASME IX), the final weldment was dispositioned in accordance with engineering judgement per the above description.

A subject matter expert (“SME”) within Enbridge’s Pipeline Integrity Department was consulted and determined that the weld met the standard of acceptability and was not an integrity concern predicated on the following:

- Both procedures involved were acceptable for the application;
- Both procedures were welded by welders qualified to weld their respective procedures;
- Verification of WPS 106 LT weldment soundness prior to deposition of DB-48 weldment by AWS-CWI visual inspection. Leaving the thin, highly stressed 106 LT cellulosic deposits to cool more than 15 minutes would have allowed sufficient time for hydrogen to diffuse into (and subsequently away from) the sensitive HAZ during the delay, but no such cracking was observed in this instance;

- The successful radiographic inspection following completion of the weldment also confirmed weld soundness;
- A comparison of the root and hot passes demonstrate that the two weld procedures are very similar, as reflected in the following table:

Root Pass (1/8" electrode)

	Electrode	Progression	Amperage	Volts	Travel Speed (in/min)	Heat Input (kJ/in)
106 LT	E6010	Downhill	90-115	27-32	8-12	N/A
DB-48	E6010	Downhill	75-130	19-30	1.5-14	</= 18.8

Hot Pass (5/32" Electrode)

	Electrode	Progression	Amperage	Volts	Travel Speed (in/min)	Heat Input (kJ/in)
106 LT	E6010	Downhill	118-135	28-35	8-10	N/A
DB-48	E8010-G	Downhill	100-185	21-31	4.0-16	</= 15.5

- The difference in strength of the electrode employed on the hot pass for the two procedures would have no material impact on the overall strength of the weld, which is predominantly a function of the fill/cap electrode; and
- It is not uncommon under ASME IX to construct weld procedures by combining multiple supporting PQR (i.e., qualification and test records) rather than testing a new test coupon that is a composite of all; thus, the rationale is not inconsistent with accepted methodology.

In addition, combining two similar weld procedures is not prohibited under PHMSA or consensus standards.

Response to the Proposed Civil Penalty

If PHMSA believes that Enbridge violated section 195.214, Enbridge respectfully states that a Warning Letter is more appropriate than an NOPV under the circumstances. Enbridge inspected the weld in accordance with PHMSA requirements and determined that the weld met the standard of acceptability. Enbridge acted in good faith at all times.

Alternatively, if PHMSA believes that a civil penalty is appropriate, Enbridge respectfully avers that PHMSA did not correctly assess the mitigating factors. Section 190.225 provides:

§ 190.225 Assessment considerations.

(a) The Associate Administrator, OPS shall consider:

- (1) The nature, circumstances and gravity of the violation, including adverse impact on the environment;
- (2) The degree of the respondent's culpability;
- (3) The respondent's history of prior offenses;
- (4) The respondent's ability to pay;

- (5) Any good faith by the respondent in attempting to achieve compliance;
- (6) The effect on the respondent's ability to continue in business; and
- (b) The Associate Administrator, OPS may consider:
 - (1) The economic benefit gained from violation, if readily ascertainable, without any reduction because of subsequent damages; and
 - (2) Such other matters as justice may require.

These factors, taken together, do not support the imposition of a penalty in this case. The nature, circumstances and gravity of the alleged violation do not warrant a penalty. As stated, both welding procedures were acceptable and were welded by qualified welders for their respective procedure. The welds were properly inspected and were determined to meet the standard of acceptability. Enbridge engaged a welding SME to ensure that safety and pipeline integrity had not been compromised. There were also no adverse impacts to the environment.

At all times, Enbridge reasonably believed that it acted in compliance with all PHMSA and industry standards. Enbridge also acted in good faith. Enbridge removed the first crew for violating confined space rules, and then assigned a second crew who was qualified on a different but very similar procedure. Enbridge believed that these actions were acceptable and compliant. For these reasons, the degree of Enbridge's culpability is low.

Enbridge's compliance history also does not support the imposition of a penalty. As noted, the weld in question is related to the BP/Amoco Pipe Modification Project, which PHMSA inspected in April 2015. PHMSA had not conducted an inspection of the Project prior to April 2015. The inspections that are referenced in the NOPV between 2012 and 2015 were performed on other larger breakout tank construction projects which involved a material number of welds. PHMSA performed field and record (including welding records) audits for these projects, with no documented or material findings.

Enbridge did not derive any economic benefit as a result of the alleged non-compliance. To the contrary, Enbridge removed a crew for not complying with confined space procedures, and brought in another qualified crew to complete the work. Enbridge believed that its actions were permitted.

For all of these reasons, Enbridge requests that a Warning Letter be issued in place of the NOPV. Alternatively, Enbridge requests a reasonable reduction in the proposed civil penalty.

Response to the Proposed Compliance Order

The proposed Compliance Order provides that Enbridge must review all welds and must re-weld all welds that were not made according to a specific, applicable, appropriate qualified welding procedure by qualified welders. Enbridge respectfully states that the proposed Compliance Order, as written, is overbroad in scope and time. However, based on an email communication between PHMSA and Enbridge dated September 14, 2015, a copy of which is attached as Exhibit 6, Enbridge believes that the broad language of the proposed Compliance Order was inadvertent.

In the email, PHMSA states that the proposed Compliance Order is limited to reviewing all welds related to the Project. With this clarification, Enbridge does not object to its terms.

If PHMSA agrees to issue a Warning Letter in place of the NOPV, Enbridge will still agree to undertake this review, as it deems the request reasonable.

Conclusion

Enbridge places the safety of the general public, our employees and the pipeline system as our most important priority. We will not compromise safety. In this case, we determined that one welding crew violated confined space procedures and, as a result, we halted work. New qualified welders were assigned to complete the weld using a qualified procedure. Enbridge reviewed the circumstances and conducted an inspection to assess the integrity of the weld in accordance with PHMSA requirements and industry standards. We believe that we acted in compliance with all applicable rules and safety was never compromised.

We respectfully request that PHMSA consider all of the attendant facts and circumstances and modify the Notice as set forth herein.

Please do not hesitate to contact me at (715) 394-1511 if you have any questions or require any additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Stafford".

David Stafford
Senior Manager
U.S. Pipeline Compliance