PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

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October 15, 2009

Mr. Byron Coy, Jr. P.E.
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration
Eastern Region, Suite 306
820 Bear Tavern Road
W. Trenton NJ 08628

RECEIVED OCT 19 2009

Subject: Portland Pipe Line Corporation
Notice of Amendment, CPF No. 1-2008-5004M

Dear Mr. Coy:

Please find enclosed with this letter Portland Pipe Line Corporation's (PPLC's) revised response to the above-noted Notice of Amendment. These revisions to our October 23, 2008 response have been developed to address review comments provided by telephone by Mr. Robert Smallcomb, PHMSA General Engineer/Pipeline Inspector. Mr. Smallcomb provided his initial comments to PPLC Director of Operations, Mr. Thomas A. Hardison, on September 24, 2009, and provided additional comments on October 8, 2009 and October 13, 2009, in response to draft revisions PPLC provided for his consideration. In the enclosed document, the revisions to our October 23, 2008 submittal are indicated by underscore and strikeout annotation for ease of reference. As with the previous submission, the enclosed information is being incorporated into Section 6 of PPLC's Operations and Maintenance Manual for the pipeline system.

For reference, we have enclosed a copy of the October 23, 2008 submittal together with the revised October 15, 2009 response. We are providing this submission electronically with hard copy to follow by mail, and with an electronic copy to Mr. Smallcomb as he requested.

PPLC believes the enclosed information addresses the concerns raised in the Notice of Amendment. Should you have any questions or further comments, please do not hesitate to contact us. We look forward to hearing from you soon regarding the resolution of this matter.

Sincerely,

Kenneth P. Brown

Enclosure

cc: M.E.V. Dawson, T.A. Hardison
File EG 174

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Responses to NOA CPF 1-2008-5004M
October 23, 2008
Revised October 15, 2009

Proposed Revisions to the Portland Montreal Operations and Maintenance Procedures Manual to Address the Specific Items of the NOA

1. **{new section}** ***[Section 11.1.1 Training]*** Training for emergency response is compliant with Section 9 of this manual and Section 3.0 of the SPCC Section of the PPLC Integrated Contingency Plan. Specifically, emergency response personnel receive **annual** training on how to:

- Carry out their assigned emergency response procedures
- Know the characteristics and hazards of crude oil
- Recognize conditions that are likely to cause emergencies and predict the consequences of the spill and take appropriate corrective actions
- Take steps necessary to control any accidental releases and to minimize the potential for fire, explosion, toxicity or environmental damage
- Learn the potential causes, types, sizes and consequences of fire and control equipment

Annual training will be conducted by computer-based training program; classroom instruction; operator qualification review, monthly safety meetings, on-the-job training; hands-on training with fire extinguishers, emergency response exercises, and ad hoc seminars and other training opportunities. Training materials will consist of the PPLC Operations and Maintenance Procedures Manual, the PPLC Integrated Contingency Plan, industry materials and materials provided during safety meetings, seminars and ad hoc training opportunities. In addition, the training materials contained within the computer-based training are available at any time to emergency response personnel and their comprehension of the training material is confirmed through testing at the end of each training module.

2. **Section 6.5.2.2** *[add the following information to the existing section]* PMPL has installed corrosion test stations strategically along the entire length of the pipeline system, generally at approximate one mile intervals, to ensure effective testing of the adequacy of the cathodic protection system of the pipeline. The adequacy of the cathodic protection system is confirmed through test lead testing, close interval surveys and internal inspections of the pipeline. To ensure proper testing of the system cathodic protection the test station wire leads must be maintained to ensure proper connection to the pipeline or portions of the pipeline as intended. Test lead wires that do not provide proper connection to the pipeline and therefore do not provide reliable and correct cathodic protection information should be repaired or removed from the test station location. Test stations should only contain test leads that are active and provide reliable information to determine the suitability of the cathodic protection system. Test lead wire connections to the pipeline or portions of the pipeline shall be inspected at their point of connection to the pipeline or portions of the pipeline whenever they are exposed and can be

inspected. Any connections that appear to be compromised will be replaced ~~immediately~~ within 90 days of discovery and retested to ensure their ability to correctly and reliably indicate the suitability of the cathodic protection system of the pipeline.

3. **Section 6.5.2.4 f** *[replace section f with the following information]* PMPL maintains a limited number of resistance bonds that provide electric ties between our pipeline and foreign pipelines that cross ours. These resistance bonds are tested annually unless the resistance bond is determined to be a **critical bond** – a bond whose failure would jeopardize the structural protection of our pipeline. A critical bond to us is a bond where the electricity flows from our pipeline to the foreign pipeline or structure. Resistance bonds are tested annually. Critical resistance bonds are tested at least 6 times each calendar year, but with intervals not exceeding 2 ½ months. The resistance or interference bond is tested by measuring the electrical voltage and amperage through the shunt or variable resistor and the direction of electrical flow. Test results are compared with previous testing results and expected values. If the results of the testing indicate a failure of the bond or the evidence of a change in the direction of electricity flow the deficiency must be investigated ~~immediately~~ within 30 days of discovery and plans to correct the deficiency developed. The operators of the pipelines that cross ours should be notified of the deficiencies identified and our intended corrective actions.

4. **Section 6.5.3.3.** *{1 Main Lines [add new section]}* PMPL monitors external corrosion control of the pipeline through internal inspections, cathodic protection testing, close interval surveys, and bell hole inspections ~~and atmospheric corrosion inspections~~ of the pipeline. External corrosion control deficiencies identified must be corrected within a reasonable time, and within 90 days of discovery generally or within 365 days of discovery if necessitated by permitting, land rights acquisitions, procurements, or seasonal restrictions. If the external corrosion control deficiency is of such a nature that it presents an immediate hazard to persons or property, the pipeline may not be operated until the unsafe condition has been corrected. If the external corrosion control deficiency~~ies~~ identified is~~are~~ in a pipeline segment operating in an integrity management program under 195.452, the deficiency must be corrected as required by 195.452 (h) ~~and the pipeline not operated until the unsafe condition has been corrected~~.

5. **Section 6.5.2.4.b** *[revise the following sentence in the existing section]* If the casing potential is ~~the same as~~ within 100mv of the pipe potential, this is an indication of a contact between the two, also known as a "short." *[add the following information to the existing section]* The readings are taken at least once each calendar year at intervals not exceeding 15 months. If a casing is found to be shorted to the pipeline the ends of the casing shall be excavated and exposed for inspection and testing within 180 days of discovery and repaired prior to the next annual test period. If the end(s) of the casing are shorted to the pipeline the casing shall be excavated and the casing jacked to clear the casing from

contacting the pipeline. Once adequate clearance is achieved and retesting indicates the shorted casing has cleared, the casing shall be supported with backfill material and an insulating material, such as Micarta, be placed between the casing and the pipeline to prevent contact between the casing and the pipeline should additional movement of the casing occur in the future.
Section 6.5.2.4.c *[add the following information to the existing section]* The readings are taken at least once each calendar year at intervals not exceeding 15 months. If an insulated flange indicates the electric isolation intended is compromised each stud will be electrically checked individually to determine if insulating washers or sleeves have been compromised within 90 days of discovery and repaired prior to the next test period. Any compromised components shall be replaced and the insulation tested again to confirm isolation. If no washers or sleeves are found to be compromised the insulating gasket must be removed and replaced. The insulation shall be tested again to confirm isolation.

6. **{add new section} [*Section 6.5.3.3.1.a]*** PMPL does not transport crude oil that contributes to the internal corrosion of the pipeline during normal operations. PMPL limits base sediment and water (BS&W) in crude oil to not more than 1%, limits hydrogen sulfide (H_2S) in crude oil to not more than 250 parts per million (PPM), and limits sulfur (S) in crude oil to not more than 4%. Numerous internal inspection tool runs since 1980 have demonstrated that internal corrosion of the pipeline is not an operational risk. Although an infrequent occurrence, pipeline segments that have been removed from the pipeline have been inspected for internal corrosion and no evidence of an internal corrosion problem identified. As a matter of good practice PMPL Operations will ensure that any pipeline removed from service for 6 months or longer and containing crude oil will contain crude oil that meets the PMPL Standard for Low Hydrogen Sulfide crude (not more than 20 ppm H_2S).

7. **{add new section}** ***[Section 6.5.3.3.1.b]*** Whenever a section of the pipeline is removed from the pipeline the removed section of pipe shall be thoroughly cleaned and inspected for evidence of internal corrosion. If internal corrosion is discovered and the corrosion requires corrective action under 195.585, the pipeline shall be inspected both circumferentially and longitudinally beyond the removed pipe section by visual examination, indirect method examination or both to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe. The inspection results shall be documented using the Bell Hole Inspection form (Figure 6.3). If additional corrosion is discovered, the responsible person in the field shall contact Engineering for consultation and guidance for repair or replacement options. Engineering will evaluate the pipe and develop repair plans under PMPL's Piping Integrity Program and manual, including assessment of remaining strength of pipe using ASME/ANSI B31G (1991 - Modified) or AGA Pipeline Research Committee Project PR-3-805 "RSTRENG" (December 1989).

8. **{new section}** ***[Section 6.5.4.1.1 Atmospheric Corrosion]*** All pipelines and portions of pipelines that are exposed to the atmosphere and atmospheric corrosion shall be adequately coated to prevent atmospheric corrosion. Pipelines and portions of pipelines that require coating shall be prepared in accordance with the recommendations of the coating manufacturer. Cleaning and preparation may be completed by wire brushing, scraping, power brushing, grinding, water blasting or sandblasting to ensure the piping or portions of the pipeline are thoroughly cleaned to the condition that will accept the coating system in compliance with the recommendations of the coating manufacturer.

   The coating material used for coating the pipeline or portions of the pipeline exposed to the atmosphere shall be Tape Coat primer and Tape Coat or equivalent at the soil-to-air interface and oil-based paint system or equivalent in standard PMPL color for the above ground facilities. The completed coating shall be inspected to ensure complete coverage and protection of the surface coated.

9. **{new section}** ***[Section 6.5.4.1.a]*** All pipelines and portions of pipelines that are exposed to the atmosphere and atmospheric corrosion shall be inspected annually to determine the condition of the coating system. The inspection results shall be documented on the *Prevention of Atmospheric Corrosion - Equipment Coating Checklists*, and any required remediation shall be documented in CMMS (Computerized Maintenance Management System). The inspection shall include all piping and portions of the piping including those located in silos. Paint and coating failures can be mild to severe. Mild coating failure is coating that is faded or disbonded and has few, if any, spots where the primer is evident. Moderate coating failure is coating that has random bare spots and disbondments that expose the pipe surface and the pipe surface has little or no corrosion evident. Severe coating failure is coating that has widespread disbonding and exposure of the pipe and corrosion is evident. During the annual inspection or before any coating repair required below, a~~A~~ny corrosion observed on the pipe shall be thoroughly cleaned and the pipe inspected to determine the extent of the corrosion, possible pipe degradation and the condition of the remaining pipe. Mild corrosion can be localized flaking of mill scale or random spots of corrosion with no pitting. Moderate corrosion can be numerous spots or areas of corrosion with slight pitting of the pipeline surface evident. Severe corrosion can be widespread disbondment of the coating system and multiple areas of pitting of the pipeline surface, or localized areas of disbondment with substantial pitting of the pipeline surface. Coating failures that have led to atmospheric corrosion of the pipeline must be repaired as soon as practicable and prior to the next annual inspection. The corrosion must be cleaned, the pipeline inspected, an evaluation of the pipeline condition completed and documented, and the coating system repaired in accordance with the recommendations of the coating manufacturer.

10. **{new section}** ***[Section 6.5.4.1.b]*** PMPL maintains a location specific list of all pipelines and portions of pipelines, including those portions located in silos, that are exposed to the atmosphere and atmospheric corrosion. Each item on the lists

is inspected annually for coating system integrity and evidence of atmospheric corrosion. The adequacy of the corrosion control measures for the pipeline is determined in accordance with the procedures in **Section 6.5.4.1.a** of this manual. Documentation of the inspection of the pipeline will include recording the condition of the pipeline coating and pipeline surface, any repairs required for the coating, and expected timing for coating repairs. If the pipeline coating is intact and the pipeline surface does not have indications of atmospheric corrosion the inspection documentation will note no corrosion and no repairs needed. Documentation for the annual inspection of the pipeline and portions of the pipeline that are exposed to atmospheric corrosion shall be retained for at least 5 years, or as long as the pipeline remains in service if required under 195.569, 195.573(a) and (b) and 195.579 (b)(3) and (c).

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October 23, 2008

Mr. Byron Coy
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety, PHP-100
409 3rd St. SW Suite 300
Washington DC 20024

Re: Submission of Written Comments and Request for Hearing
In Re Portland Pipe Line Corporation
Notice of Amendment
CPF No. 1-2008-5004M

Dear Mr. Coy:

On behalf of Portland Pipe Line Corporation (Portland Pipe Line or the Company), the purpose of this letter and the accompanying documents is to submit written responses to the Office of Pipeline Safety (OPS) to the above referenced Notice of Amendment (NOA). We believe that the Company can address and resolve all of the issues raised by the NOA, and the attached documents describe both our response and planned action for each of the ten NOA Items presented. In the event our responses and planned actions do not address the OPS concerns referenced in the NOA, however, we respectfully reserve our right to a hearing on any issues left unresolved. For that reason, and pursuant to 49 C.F.R. Parts 190.209, 190.211 and 190.237, our attached written comments are submitted in the form of a request for hearing. As noted in our response for each Item, however, if OPS agrees with our response and planned action for that Item, then we will withdraw the respective request for hearing. It is our expectation that all of the Items are capable of resolution without resorting to a hearing.

The NOA as issued to Portland Pipe Line by OPS was dated September 16, 2008, but received by the Company on September 25, 2008. Accordingly, this response is timely. As required by 49 C.F.R. Part 190.211, attached to this Request for Hearing is a Statement of Issues, which incorporates by reference written responses to CPF No. 1-2008-5004M. As also required by 49 C.F.R. Part 190.211(a), please be advised that the Hunton & Williams law firm will represent the Company if any hearing must be scheduled for this matter.

Portland Pipe Line believes that the issues raised in this administrative enforcement action are capable of informal resolution, either because of various changes that have occurred with the Company's operations and maintenance program since the underlying inspection was conducted in November 2007, or because of changes that the Company has committed to make in its response to the NOA.

If you have any questions about the Company's response to the NOA or this Request for Hearing, or about this matter generally, please do not hesitate to contact me.

Sincerely,

Kenneth P. Brown

Enclosures

cc: Marjorie Dawson
David Cyr
Thomas Hardison
Robert Hogfoss, Esq.
Catherine Little, Esq.

PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

Detailed Response to Notice of Amendment - CPF 1-2008-5004M

NOA Item No.	Date of Submission by PPLC to Address Item	Description of Response
1.	October 23, 2008	Portland Pipe Line Corporation (PPLC) has revised its Operations and Maintenance Procedures Manual Section 11 to provide specificity with respect to training materials, training curriculum and schedule of the ERT classes. • *Specifically, additional language has been inserted into new Section 11.1.1*
2.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to include the maintenance program for pipe test leads to establish a maintenance program for the test lead wires to assure their suitability for testing the cathodic protection system on the pipeline, and a statement about the general spacing of the test leads along the pipeline. • *Specifically, additional language has been inserted into Section 6.5.2.2*
3.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to include guidance on the testing of interference bonds and identified the results of the monitoring that would prompt corrective action. • *Specifically, additional language has been inserted into Section 6.5.2.4(f)*
4.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to specify that deficiencies identified in external corrosion control must be corrected to satisfy 195.401(b) and completed in a reasonable time, or if the condition presents an immediate hazard do not operate the pipeline until the unsafe condition has been corrected. • *Specifically, additional language has been inserted into new Section 6.5.3.3.1*
5.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to specify a definite test interval and follow-up actions for shorted casings. • *Specifically, additional language has been inserted into Section 6.6.5.2.4.b and 6.5.2.4.c*

NOA Item No.	Date of Submission by PPLC to Address Item	Description of Response
6.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to include threshold levels of H2S or other corrosive materials to alert operating staff of potential problem batches and what protections staff can take to protect the pipelines from internal corrosion. • *Specifically, additional language has been inserted into new Section 6.5.3.3.1.a*
7.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to provide procedures for the inspection of removed pipe for internal corrosion. • *Specifically, additional language has been inserted into new Section 6.5.3.3.1.b*
8.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to include the process for the application of coating to ensure that it adheres to the pipeline, and specifying acceptable coatings to protect the pipeline from atmospheric corrosion. • *Specifically, additional language has been inserted into new Section 6.5.4.1.1*
9.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to specify different levels of coating failure, levels of pipe degradation or urgency of remediation as required by 195.581. • *Specifically, additional language has been inserted into new Section 6.5.4.1.2*
10.	October 23, 2008	PPLC has revised its Operations and Maintenance Procedures Manual Section 6 to specify criteria to measure the adequacy of corrosion control measures and record the absence of corrosion requiring control measures, and to designate a period of record retention. • *Specifically, additional language has been inserted into new Section 6.5.4.1.b*

Responses to NOA CPF 1-2008-5004M
October 23, 2008

Proposed Revisions to the Portland Montreal Operations and Maintenance Procedures Manual to Address the Specific Items of the NOA

1. **{new section}** ***[Section 11.1.1 Training]*** Training for emergency response is compliant with Section 9 of this manual and Section 3.0 of the SPCC Section of the PPLC Integrated Contingency Plan. Specifically, emergency response personnel receive **annual** training on how to:

- Carry out their assigned emergency response procedures
- Know the characteristics and hazards of crude oil
- Recognize conditions that are likely to cause emergencies and predict the consequences of the spill and take appropriate corrective actions
- Take steps necessary to control any accidental releases and to minimize the potential for fire, explosion, toxicity or environmental damage
- Learn the potential causes, types, sizes and consequences of fire and control equipment

Annual training will be conducted by computer-based training program; classroom instruction; operator qualification review, monthly safety meetings, on-the-job training; hands-on training with fire extinguishers, emergency response exercises, and ad hoc seminars and other training opportunities. Training materials will consist of the PPLC Operations and Maintenance Procedures Manual, the PPLC Integrated Contingency Plan, industry materials and materials provided during safety meetings, seminars and ad hoc training opportunities. In addition, the training materials contained within the computer-based training are available at any time to emergency response personnel and their comprehension of the training material is confirmed through testing at the end of each training module.

2. **Section 6.5.2.2** *[add the following information to the existing section]* PMPL has installed corrosion test stations strategically along the entire length of the pipeline system, generally at approximate one mile intervals, to ensure effective testing of the adequacy of the cathodic protection system of the pipeline. The adequacy of the cathodic protection system is confirmed through test lead testing, close interval surveys and internal inspections of the pipeline. To ensure proper testing of the system cathodic protection the test station wire leads must be maintained to ensure proper connection to the pipeline or portions of the pipeline as intended. Test lead wires that do not provide proper connection to the pipeline and therefore do not provide reliable and correct cathodic protection information should be repaired or removed from the test station location. Test stations should only contain test leads that are active and provide reliable information to determine the suitability of the cathodic protection system. Test lead wire connections to the pipeline or portions of the pipeline shall be inspected at their point of connection to the pipeline or portions of the pipeline whenever they are exposed and can be inspected. Any connections that appear to be compromised will be replaced

immediately and retested to ensure their ability to correctly and reliably indicate the suitability of the cathodic protection system of the pipeline.

3. **Section 6.5.2.4 f** *[replace section f with the following information]* PMPL maintains a limited number of resistance bonds that provide electric ties between our pipeline and foreign pipelines that cross ours. These resistance bonds are tested annually unless the resistance bond is determined to be a **critical bond** – a bond whose failure would jeopardize the structural protection of our pipeline. A critical bond to us is a bond where the electricity flows from our pipeline to the foreign pipeline or structure. Resistance bonds are tested annually. Critical resistance bonds are tested at least 6 times each calendar year, but with intervals not exceeding 2 ½ months. The resistance or interference bond is tested by measuring the electrical voltage and amperage through the shunt or variable resistor and the direction of electrical flow. Test results are compared with previous testing results and expected values. If the results of the testing indicate a failure of the bond or the evidence of a change in the direction of electricity flow the deficiency must be investigated immediately and plans to correct the deficiency developed. The operators of the pipelines that cross ours should be notified of the deficiencies identified and our intended corrective actions.

4. **Section 6.5.3.3.** {*1 Main Lines [add new section]}* PMPL monitors external corrosion control of the pipeline through internal inspections, cathodic protection testing, close interval surveys, bell hole inspections and atmospheric corrosion inspections of the pipeline. External corrosion control deficiencies identified must be corrected within a reasonable time. If the external corrosion control deficiencies identified are in a pipeline operating in an integrity management program under 195.452, the deficiency must be corrected as required by 195.452 (h) and the pipeline not operated until the unsafe condition has been corrected.

5. **Section 6.5.2.4.b** *[add the following information to the existing section]* The readings are taken at least once each calendar year at intervals not exceeding 15 months. If a casing is found to be shorted to the pipeline the ends of the casing shall be excavated and exposed for inspection and testing. If the end(s) of the casing are shorted to the pipeline the casing shall be excavated and the casing jacked to clear the casing from contacting the pipeline. Once adequate clearance is achieved and retesting indicates the shorted casing has cleared, the casing shall be supported with backfill material and an insulating material, such as Micarta, be placed between the casing and the pipeline to prevent contact between the casing and the pipeline should additional movement of the casing occur in the future. **Section 6.5.2.4.c** *[add the following information to the existing section]* The readings are taken at least once each calendar year at intervals not exceeding 15 months. If an insulated flange indicates the electric isolation intended is compromised each stud will be electrically checked individually to determine if insulating washers or sleeves have been compromised. Any compromised components shall be replaced and the insulation tested again to confirm isolation. If no washers or sleeves are found to be compromised the insulating gasket must

be removed and replaced. The insulation shall be tested again to confirm isolation.

6. **{add new section}** ***[Section 6.5.3.3.1.a]*** PMPL does not transport crude oil that contributes to the internal corrosion of the pipeline during normal operations. PMPL limits basic sediment and water (BS&W) in crude oil to not more than 1%, limits hydrogen sulfide (H_2S) in crude oil to not more than 250 parts per million (PPM), and limits sulfur (S) in crude oil to not more than 4%. Numerous internal inspection tool runs since 1980 have demonstrated that internal corrosion of the pipeline is not an operational risk. Although an infrequent occurrence, pipeline segments that have been removed from the pipeline have been inspected for internal corrosion and no evidence of an internal corrosion problem identified. As a matter of good practice PMPL Operations will ensure that any pipeline removed from service for 6 months or longer and containing crude oil will contain crude oil that meets the PMPL Standard for Low Hydrogen Sulfide crude (not more than 20 ppm H_2S).

7. **{add new section}** ***[Section 6.5.3.3.1.b]*** Whenever a section of the pipeline is removed from the pipeline the removed section of pipe shall be thoroughly cleaned and inspected for evidence of internal corrosion. If internal corrosion is discovered and the corrosion requires corrective action under 195.585, the pipeline shall be inspected both circumferentially and longitudinally beyond the removed pipe section by visual examination, indirect method examination or both to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe. If additional corrosion is discovered, the responsible person in the field shall contact Engineering for consultation and guidance for repair or replacement options.

8. **{new section}** ***[Section 6.5.4.1.1 Atmospheric Corrosion]*** **All pipelines and** portions of pipelines that are exposed to the atmosphere and atmospheric corrosion shall be adequately coated to prevent atmospheric corrosion. Pipelines and portions of pipelines that require coating shall be prepared in accordance with the recommendations of the coating manufacturer. Cleaning and preparation may be completed by wire brushing, scraping, power brushing, grinding, water blasting or sandblasting to ensure the piping or portions of the pipeline are thoroughly cleaned to the condition that will accept the coating system in compliance with the recommendations of the coating manufacturer.

   The coating material used for coating the pipeline or portions of the pipeline exposed to the atmosphere shall be Tape Coat primer and Tape Coat or equivalent at the soil-to-air interface and oil-based paint system or equivalent in standard PMPL color for the above ground facilities. The completed coating shall be inspected to ensure complete coverage and protection of the surface coated.

9. **{new section}** ***[Section 6.5.4.1.a]*** All pipelines and portions of pipelines that are exposed to the atmosphere and atmospheric corrosion shall be inspected annually to determine the condition of the coating system. The inspection shall include all piping and portions of the piping including those located in silos. Paint and coating failures can be mild to severe. Mild coating failure is coating that is faded or disbanded and has few, if any, spots where the primer is evident. Moderate coating failure is coating that has random bare spots and disbondments that expose the pipe surface and the pipe surface has little or no corrosion evident. Severe coating failure is coating that has widespread disbanding and exposure of the pipe and corrosion is evident. Any corrosion observed on the pipe shall be thoroughly cleaned and the pipe inspected to determine the extent of the corrosion, possible pipe degradation and the condition of the remaining pipe. Mild corrosion can be localized flaking of mill scale or random spots of corrosion with no pitting. Moderate corrosion can be numerous spots or areas of corrosion with slight pitting of the pipeline surface evident. Severe corrosion can be widespread disbondment of the coating system and multiple areas of pitting of the pipeline surface, or localized areas of disbondment with substantial pitting of the pipeline surface. Coating failures that have led to atmospheric corrosion of the pipeline must be repaired as soon as practicable. The corrosion must be cleaned, the pipeline inspected, an evaluation of the pipeline condition completed and documented, and the coating system repaired in accordance with the recommendations of the coating manufacturer.

10. **{new section}** ***[Section 6.5.4.1.b]*** PMPL maintains a location specific list of all pipelines and portions of pipelines, including those portions located in silos, that are exposed to the atmosphere and atmospheric corrosion. Each item on the lists is inspected annually for coating system integrity and evidence of atmospheric corrosion. The adequacy of the corrosion control measures for the pipeline is determined in accordance with the procedures in **Section 6.5.4.1.a** of this manual. Documentation of the inspection of the pipeline will include recording the condition of the pipeline coating and pipeline surface, any repairs required for the coating, and expected timing for coating repairs. If the pipeline coating is intact and the pipeline surface does not have indications of atmospheric corrosion the inspection documentation will note no corrosion and no repairs needed. Documentation for the annual inspection of the pipeline and portions of the pipeline that are exposed to atmospheric corrosion shall be retained for at least 5 years, or as long as the pipeline remains in service if required under 195.569, 195.573(a) and (b) and 195.579 (b)(3) and (c).

U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

409 3rd St. S.W. Suite 300
Washington, D.C. 20024

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 16, 2008

Ms. Marjorie Dawson
President
Portland Pipeline Terminal
30 Hill Street
S. Portland, ME 04106

CPF 1-2008-5004M

Dear Ms. Dawson:

During the week of November 5, 2007, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your crude oil pipeline between Portland, Maine and Jay, Vermont.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Portland Pipeline Corporation's (PMPL) plans or procedures, as described below:

1. **§195.403 Emergency Response Training.**

(a) Each operator shall establish and conduct a continuing training program to instruct emergency response personnel to:
(1) Carry out the emergency procedures established under 195.402 that relate to their assignments;
(2) Know the characteristics and hazards of the hazardous liquids or carbon dioxide transported, including, in case of flammable HVL, flammability of mixtures with air, odorless vapors, and water reactions;
(3) Recognize conditions that are likely to cause emergencies, predict the consequences of facility malfunctions or failures and hazardous liquids or carbon dioxide spills, and take appropriate corrective action;
(4) Take steps necessary to control any accidental release of hazardous liquid or carbon dioxide and to minimize the potential for fire, explosion, toxicity, or environmental damage; and
(5) Learn the potential causes, types, sizes, and consequences of fire and the appropriate use of portable fire extinguishers and other on-site fire control equipment, involving, where feasible, a simulated pipeline emergency condition.

Section 11 of PMPL's Operations and Maintenance Procedures Manual (O&M) details PMPL's Emergency Response Training Procedures (ERTP). The procedures are lacking sufficient detail regarding the training materials. Operator states that the entire O&M is the training guide. The ERTP was lacking specificity with respect to training materials, training curriculum and schedule of the ERT classes.

2. **§195.567 Which pipelines must have test leads and what must I do to install and maintain the leads?**
(b) Installation. You must install test leads as follows:
(1) Locate the leads at intervals frequent enough to obtain electrical measurements indicating the adequacy of cathodic protection.
(c) Maintenance. You must maintain the test lead wires in a condition that enables you to obtain electrical measurements to determine whether cathodic protection complies with Sec. 195.571.

PMPL's O&M section 6.5.2.2 states that test stations are located at most road crossings along the ROW. This does not necessarily assure that the operator can properly monitor the adequacy of the cathodic protection along the entire pipeline. The procedures fail to establish a maintenance program for the test lead wires to assure their suitability for testing the cathodic protection system on the pipeline.

3. **§195.573 What must I do to monitor external corrosion control?**

(c) Rectifiers and other devices. You must electrically check for proper performance each device in the first column at the frequency stated in the second column.

Device	Check frequency
Rectifier **Reverse current switch** **Diode** **Interference bond whose failure would jeopardize structural protection**	**At least six times each calendar year, but with intervals not exceeding 2 ½ months**
Other interference bond	**At least once each calendar year, but With intervals not exceeding 15 months.**

PMPL's O&M section 6.5.2.2.f states:

Resistance bonds – These are electric ties between our own lines and foreign pipelines that cross us. Data is gathered that reflects the electric current flow in amperes to or from these lines.

The O&M provides no guidance on the testing of the interference bond nor does it provide the results of the monitoring that would prompt corrective action.

4. **§195.573 What must I do to monitor external corrosion control?**
   (e) Corrective action. You must correct any identified deficiency in corrosion control as required by Sec. 195.401(b). However, if the deficiency involves a pipeline in an integrity management program under Sec. 195.452, you must correct the deficiency as required by Sec. 195.452(h).

PMPL's O&M do not specify that deficiencies identified in corrosion control must be corrected to satisfy §195.401(b) which requires that corrections be done within a reasonable time, or if the condition presents an immediate hazard . . . the operator may not operate the pipeline until it has corrected the unsafe condition

5. **§195.575 Which facilities must I electrically isolate and what inspections, tests, and safeguards are required?**
   (c) You must inspect and electrically test each electrical isolation to assure the isolation is adequate.

PMPL's O&M section 6.5.5.4.b state that the insulated flanges and casings will be tested, but they do not specify a definite test interval. There is no prescribed follow-up action when operator discovers a shorted casing.

6. **§195.579 What must I do to mitigate internal corrosion?**
   (a) General. If you transport any hazardous liquid or carbon dioxide that would corrode the pipeline, you must investigate the corrosive effect of the hazardous liquid or carbon dioxide on the pipeline and take adequate steps to mitigate internal corrosion.

PMPL states that the tariff limits crude to <1% BS&W (sand, grit, dirt, wax and water). Operator runs a cleaning pig through the pipeline quarterly. Vessels provide assay analysis with

hydrogen sulfide (H_2S) concentrations, but the procedures do not provide threshold levels of H_2S, or other corrosive materials, to alert operating staff of problem batches and what protections operator could take to protect the pipeline from internal corrosion.

7. **195.579 What must I do to mitigate internal corrosion?**
(c) Removing pipe. Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under Sec. 195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

PMPL's O&M fails to provide procedures to maintenance staff on the inspection of removed pipe for internal corrosion.

8. **§195.581 Which pipelines must I protect against atmospheric corrosion and what coating material may I use?**
a) You must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.
(b) Coating material must be suitable for the prevention of atmospheric corrosion.

PMPL O&M fails to specify the process involved in the application of coating to ensure that it adheres to the pipeline. The O&M also fails to specify acceptable coatings to protect the pipeline from atmospheric corrosion.

9. **§195.583 What must I do to monitor atmospheric corrosion control?**
a) You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:
If the pipeline is located onshore, then the frequency of inspection is at least once every 3 calendar years, but with intervals not exceeding 39 months . . .
(b) During inspections you must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports . . . and in spans over water.
(c) If you find atmospheric corrosion during an inspection, you must provide protection against the corrosion as required by Sec. 195.581.

PMPL's O&M in Section 6 refers to the annual paint inspection. There is only reference to "paint and coating failures." Procedures fail to specify different levels of coating failure, levels of pipe degradation or urgency of remediation. Procedures provide only for remediation during warmer weather.

10. **§195.589 What corrosion control information do I have to maintain?**
(c) You must maintain a record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. You must

retain these records for at least 5 years, except that records related to Secs. 195.569, 195.573(a) and (b), and 195.579(b)(3) and (c) must be retained for as long as the pipeline remains in service.

PMPL's O&M in Section 6 requires only that "if abnormalities are discovered [during the annual paint/coating inspection], an immediate report is made to maintenance Supervisor South Portland." PMPL's procedures do not specify criteria to measure the adequacy of corrosion control measures or that PMPL record the absence of corrosion requiring control measures. PMPL's procedures do not designate a period of record retention.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237. Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

In correspondence concerning this matter, please refer to **CPF 1-2008-5004M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Byron Coy, PE
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*