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Victor Gaglio Senior Vice President Operations

March 24, 2009

Rodrick M. Seeley Regional Director, Office of Pipeline Safety Pipeline and Hazardous Materials Safety Administration 8701 S. Gessner Road Suite 1110 Houston, TX 77074

Victor Maglis

RE: Notice of Probable Violation and Proposed Civil Penalty Columbia Gulf Transmission CPF 4-2009-1005

Dear Mr. Seeley:

Columbia Gulf Transmission (Columbia) has received the above Notice of Probable Violation and Proposed Civil Penalty (NOPV) and respectfully submits the following responses and rebuttal. Version 2 of the Notice of Proposed Violation was received by Columbia on February 23, 2009.

In accordance with Item I (a) (3) of the Response Options for Pipeline Operators in Compliance Proceedings, Columbia is contesting several items in the NOPV. Columbia hereby submits its response to these allegations and provides supporting information as Attachment 1.

Columbia respectfully requests that PHMSA review the responses and reduce or rescind the civil penalties.

If you have any questions, please feel free to contact me. Columbia would welcome an opportunity to meet with you and your team to discuss this response to the NOPV.

Sincerely,



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Victor Gaglio
Senior Vice President Operations

March 24, 2009

R. M. Seeley Director, Southwest Region Pipeline and Hazardous Materials Safety Administration 8701 South Gessner Road Suite 1110 Houston, TX 77074

RE: Response to Notice of Probable Violation and Proposed Civil Penalty Columbia Gulf Transmission CPF 4-2009-1005 Dated February 12, 2009 and Received February 23, 2009

Dear Mr. Seeley:

This letter contains the response of Columbia Gulf Transmission Company ("Columbia") to the Notice of Probable Violation and Proposed Civil Penalty ("NOPV") referenced above. In accordance with 49 C.F.R. § 190.209 (a) (2) and Section I.a.3. of the Response Options for Pipeline Operators in Compliance Proceedings transmitted with the NOPV, Columbia submits written explanations, information, and other material in answer to the allegations and in mitigation of the proposed civil penalties described in the NOPV.

I. Introduction

On December 14, 2007, Columbia's Line 100 failed near Delhi, Louisiana just south of the point where Line 100 crosses Interstate 20. That failure resulted in an explosion and fire, one fatality, one non-fatal personal injury, property damage and a temporary closure of Interstate 20. This incident occurred notwithstanding the fact that Columbia had in place an active surveillance program, using high resolution internal inspections and instrumented leak detection surveys for all cased pipe, to detect and monitor external corrosion.

The NOPV alleges that Columbia failed to comply with pipeline safety regulations that require pipeline operators to maintain and follow procedures for investigating pipeline failures and for undertaking continuous surveillance of pipeline facilities in order to take appropriate action with respect to, among other things, leaks and corrosion. Specifically, the NOPV alleges that Columbia failed to investigate properly three previous reportable Incidents and failed to adjust its continuous surveillance accordingly. The NOPV also alleges that Columbia failed to investigate a potentially shorted casing in violation of Columbia's operations and maintenance procedures. The incidents referenced in the NOPV are described in the table below:

Event	Date	Location	Mainline	Location	Cause	Emergency Condition	Follow Up Remedial Actions
Pipeline Failure	09/29/00	North of Interstate 20, Delhi, LA	Line 200	In a field	External Corrosion	Yes	Replaced the entire pipe section in the field, added a rectifier and groundbed, performed inline inspection on section
Pipeline Leak	08/03/01	St. Landry Parish, LA	Line 100	In a Casing	External Corrosion	No	Replaced entire pipe section within the casing
Pipeline Leak	09/13/06	US Route 80 Delhi, LA	Line 100	In a Casing	External Corrosion	No	Replaced entire pipe section within the casing, filled casing
Pipeline Failure	12/14/07	South of Interstate 20, Delhi LA	Line 100	In a Casing	External Corrosion	Yes	Replaced the entire pipe section and casing, filled casing, performed inline inspection on section

Pipeline safety is the top priority for Columbia. At all applicable times, Columbia had in place extensive and detailed procedures, which procedures were revised and updated from time to time, for investigating pipeline failures and for undertaking continuous surveillance to detect and address leaks and corrosion. In fact, two of the reportable Incidents cited in the NOPV were leaks detected by Columbia as a result of its continuous surveillance program, which included instrumented leak detection surveillance for all cased pipe. Columbia conducted investigations in connection with all three previous reportable Incidents and, in Columbia's judgment, based on the information it had at the time, Columbia considered its standard resolution and high resolution internal pipeline inspection and instrumented leak detection for cased pipe (consistent with industry practice) to be appropriate continuous surveillance tools for detecting and addressing corrosion and leaks on pipelines.

Neither the company investigations with respect to the 2001 and 2006 leaks referenced in the NOPV nor the third party analysis with respect to the 2000 and 2007 pipeline failures referenced in the NOPV suggest any evidence that shorted casings contributed to either the leaks or the failures. The NOPV alleges that where a potential difference between the pipe-to-soil reading and a pipe-to-casing reading is 100 mV, Columbia's procedures (in place at the time) required that the casing should have been considered shorted (NOPV, p. 6). However, while Columbia contends that its procedures at the time did not specify that a potential difference of 100 mV indicated a metallic short, Columbia nonetheless treated the reading referenced in the NOPV as a short.

Therefore, Columbia seeks to set aside or significantly reduce the civil penalties proposed in the NOPV for the first and third alleged violations cited therein and a significant reduction in the civil penalty proposed in the NOPV for the second violation cited therein.

Finally, 49 CFR 190.223 states that a "civil penalty may not exceed \$1,000,000 for any related series of violations." Columbia asserts that the Proposed Civil

Penalty - \$760,000 for the first PHMSA finding regarding investigation of failures, \$35,000 for the second PHMSA finding regarding continuing surveillance, and \$760,000 for the third PHMSA finding regarding investigation of shorted casing, totaling \$1,555,000 - exceeds the amount allowed under 49 CFR 190.223 because the alleged violations cited in the NOPV are related, i.e. more than one violation has been cited in connection with the same incident. Under the circumstances present here, which include Columbia's significant continuing surveillance activities and substantial adherence to its procedures, Columbia respectfully submits that any penalty assessed should be substantially less than \$1 million.

II. Response Filing

Columbia received the NOPV on February 23, 2009. Columbia hereby contests the findings made by the Pipeline and Hazardous Materials Safety Administration ("PHMSA") of the probable violations described in the NOPV relating to a December 14, 2007 pipeline failure on Columbia's Line 100 near Delhi, Louisiana, south of the Interstate 20 crossing and certain other previous incidents as described in the NOPV and files this response thereto, in accordance with 49 CFR 190.209(a)(2), in answer to the allegations and seeking mitigation of the proposed civil penalties. Columbia regards the Metallurgical & Materials Technologies Inc. (M&MT) report attached hereto as Exhibit 1 as attorney work product and requests that it be notified prior to the M&MT report being made publicly available and that it be afforded the opportunity to argue against its production.

III. <u>Summary of Columbia Responses to PHMSA Findings of Probable</u> Violations

The transmittal letter for the NOPV from Cynthia P. Lewis of your office, dated February 12, 2009, and received by Columbia on February 23, 2009, requested that Columbia disregard a previous Notice of Probable Violation and Proposed Civil Penalty, also dated February 12, 2009.

(a) **PHMSA Finding #1** – Probable violation of 49 CFR 192.605(a) & (e) (Procedural manual for operations, maintenance, and emergencies) and 192.617 (Investigation of failures)² in connection with alleged failure by Columbia to follow its procedures for investigating pipeline failures.

Summary of Columbia Response:

Columbia contests PHMSA Finding #1 and asserts that: (a) Columbia did have "established procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of a recurrence" as required by Section 192.617; (b) those procedures were contained in Columbia's procedure manual maintained in accordance with Section 192.605(a) & (e); and (c) Columbia followed such procedures in response to the incidents that occurred in 2000, 2001, 2006, and 2007, referenced in the NOPV.

(b) PHMSA Finding #2 – Probable violation of 49 CFR 192.605(a) &
 (e) (Procedural manual for operations, maintenance, and emergencies) and 192.613 (Continuing surveillance) in connection with Columbia's alleged failure to adopt and follow sufficient continuing surveillance programs.

Summary of Columbia Response:

Columbia contests PHMSA Finding #2 and asserts that Columbia did maintain an active program of continuing surveillance as required by Section 192.613(a), including the use of high resolution in-line inspection tools and instrumented leak surveys of all cased pipe.

Unless otherwise stated, all references to Sections herein are references to the regulations regarding Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards set forth in Title 49 of the Code of Federal Regulations, Chapter 1, Part 192.

(c) **PHMSA Finding #3** – Probable violation of 49 CFR 192.605(a) (Procedural manual for operations, maintenance, and emergencies) in connection with Columbia's allegedly improper failure to perform an investigation to determine if the applicable casing was metallically shorted.

Summary of Columbia Response:

Columbia contests PHMSA Finding #3 and asserts that Columbia followed its procedure 70.01.01 (External Corrosion Control) in connection with the last annual potential survey of the Line 100 Interstate 20 crossing conducted on June 27, 2007 and also added the applicable casing to the list of shorted casings that were to be included in the instrumented continuing surveillance program for shorted casings.

IV. Factual Background

(a) The Incidents

On December 14, 2007, a failure on Columbia's Line 100 (a high pressure interstate natural gas transmission pipeline constructed in 1954) near Delhi, Louisiana, south of the Interstate 20 crossing, resulted in an explosion and fire, one person's death, another person's injury, property damage, and a temporary closure of Interstate 20 (the "2007 Failure").

A third party analysis by Metallurgical and Materials Technologies, Inc. ("M&MT") concluded that the 2007 Failure was caused by external corrosion within the cased portion of the pipeline at the I-20 crossing near Delhi, Louisiana. A copy of the M&MT report is attached hereto as Exhibit 1. M&MT found that the external corrosion was caused by moisture in the atmosphere and standing water in the casing, in conjunction with a high concentration of chlorides in the environment and localized failure of the pipeline coating. M&MT also concluded that sulfate reducing bacteria were not a contributing factor to the corrosion and failure of the

pipeline nor did M&MT find any indication that a short at the casing contributed to the pipeline failure. According to M&MT there was no evidence that the pitting corrosion had penetrated the wall of the pipe prior to the failure, and thus the pipe was not leaking at the location of the failure before the failure happened.

On September 29, 2000, Columbia experienced a pipeline failure (the "2000 Failure") in an uncased section of its Line 200 (which runs parallel to Line 100) in a pasture approximately 480 feet north of Interstate 20, in relatively close proximity to where the 2007 Failure occurred. A third party analysis of that failure concluded that the failure was due to external corrosion. The cause of the corrosion was not specifically determined. The third party metallurgist suggested that it was caused by sulfate reducing bacteria. Columbia completed a high resolution internal inspection for the Delhi, LA to Inverness, MS segment of Line 200 in March of 2001, to, among other things, identify and locate external corrosion (see Exhibit 2 relating to high resolution internal inspections) regardless of cause. Results from the March 3, 2001 ILI run showed external corrosion in several locations. Remedial action included approximately 472 feet of pipe replacement and coating repairs. Columbia also completed a high resolution internal inspection of the Delhi, LA to Inverness MS segment of Line 200 on November 19, 2008 for the same purpose. Results from the November 19, 2008 ILI run showed that no immediate repairs were required. One confirmation dig is planned for 2009.

On August 3, 2001, Columbia, in carrying out its leak surveillance program, discovered a leak on Line 100 in a cased highway crossing near Rayne, Louisiana (the "2001 Leak"). Columbia determined that external corrosion under a casing spacer ring was the likely cause of the leak. Columbia replaced the entire length of pipe in the casing with new coated steel pipe. Columbia reported the 2001 Leak as a reportable Incident due to the cost of replacing the affected pipe.

On September 13, 2006, Columbia discovered a leak on Line 100 in a cased highway crossing at Highway 80 near Delhi, Louisiana (the "2006 Leak"), which together with the 2000 Failure and the 2001 Leak, are referred to herein as the "Previous Incidents"). Columbia classified the 2006 Leak as a Grade 2 leak and scheduled the affected pipe for replacement (See Exhibit 3 for the Work Management System completed Work Order showing the leak grade in line 307). Columbia determined that external corrosion caused by a coating failure was the likely cause of the leak. Columbia replaced the entire length of pipe in the casing with new coated-steel pipe, and the annular space of the casing was filled with a non-conductive type casing filler material. The 2006 Leak was reported as a reportable Incident due to the cost of replacing the affected pipe.

In sum, the NOPV references two pipeline failures, the 2000 Failure and the 2007 Failure, and two leaks, the 2001 Leak and the 2006 Leak. Each of those incidents occurred due to external corrosion, caused by various conditions under varying circumstances.

Immediately following the 2007 Failure, Columbia implemented its emergency response procedures and its investigation of failures procedures and revised its continuing surveillance program in response to the 2007 Failure. On the day that the 2007 Failure occurred, M&MT was engaged to perform a failure analysis. Since the 2007 Failure and in response thereto, Columbia has accelerated its high resolution pipeline inspection program as shown below in order to identify, among other things, external corrosion on pipe within casings and elsewhere on the Line 100, Line 200, and Line 300 (the "Mainlines"). All of the internal line inspection ("ILI") runs were scheduled for completion within the regulatory timeframe specified in Subpart O of 49 CFR Part 192. However, following the 2007 Failure, the remaining ILIs for the Mainlines ILIs were re-scheduled to occur at a more rapid pace.

The expedited high resolution inspection work includes the following:

- Line 100 Mississippi River to Inverness, MS. The baseline inspection was originally scheduled for completion in 2011, but was completed in 2007, following the 2007 Failure.
- Line 100 Delhi, LA to Mississippi River. The baseline inspection for this segment was completed in 2008 (there are no HCAs on this segment).
- Line 200 Delhi, LA to Inverness MS. The baseline inspection was originally scheduled for 2010, but was completed in 2008.
- Line 300 Delhi, LA to Inverness, MS. The baseline inspection was originally scheduled for 2010, but was completed in 2008.
- Line 100 Inverness, MS to Banner, MS. The baseline inspection was originally scheduled for 2010, but was completed in 2007.

Only three segments of the Mainlines have not been subject to a high resolution ILI, and those three segments are scheduled to have high resolution ILIs in 2009.

In addition, on April 16, 2008, Columbia augmented its leak surveillance program with respect to all casings to provide for instrumented leak surveys on a semi-annual basis. To further enhance the Columbia instrumented leakage surveillance program, beginning in the second quarter of 2009, Columbia will implement a quarterly instrumented leakage surveillance period for casings determined to have corrosion from high resolution in-line inspections.

(b) Columbia's O&M Procedures

Prior to 2003, Columbia's O&M procedures manual, established pursuant to Section 192.605 and Section 192.617, was known as the Manual of Approved Procedures ("MAPO"). The emergency response provisions of the MAPO were contained in the Operations Binder, Volume 5, Tab 1, Registry 2, Reporting Incidents and Facility Failures/Malfunctions (a copy of which is attached hereto as Exhibit 4). Section III B (1) (b) of this procedure required the use of Form 2377-EG4 Incident/Failure Report and Corporate Self – Critical Analysis along with other relevant documentation for reportable Incidents. Further formal investigation requirements were outlined in Section V Formal Investigation. A

Form 2377-EG4 was completed for both the 2000 Failure and the 2001 Leak, copies of which are attached hereto as Exhibits 5 and 6.

On June 12, 2003, Columbia adopted revisions to its O&M procedures, including its procedures for failure investigations, in order to make its procedures more consistent, employ a more modern format, and implement an electronic document management tool to manage changes and modifications. On December 13, 2006, Columbia revised its O&M procedures as part of a consolidation effort to be consistent with the procedures for the other NiSource Gas Transmission and Storage companies. Form 2377-EG4 *Incident/Failure Report and Corporate Self – Critical Analysis* was replaced with Procedure 220.005.001 *DOT Incident Reporting*, which is the current Columbia procedure for DOT Incidents and Investigations.

(c) Ongoing Corrosion Detection

As part of its ongoing program to investigate corrosion, Columbia had been using standard resolution pipeline inspections since the 1980s on the Mainlines and began using high resolution pipeline inspections in 2001. (See Exhibit 7 for the Standard Resolution In-line Inspection Table from 1980 to 2001) The section of Line 100 where the 2007 Failure occurred was subjected to a standard resolution inspection in October of 1996. The in-line inspection vendor's report (See Exhibit 8 for the summary report from Tuboscope) shows that 63 areas of external corrosion were identified in the two in-line inspection tool runs (from Delhi, LA to the Mississippi River and from the Mississippi River to Inverness MS). The vendor did not identify any anomalies that Columbia considered actionable under Sec. 192.485 (see Exhibit 8 Section III). Furthermore, the section of Line 200 where the 2000 Failure occurred was subjected to a high resolution inspection in March of 2001 as part of Columbia's follow up to the 2000 Failure.

Since 2004, as part of its Integrity Management Program ("IMP"), Columbia has conducted high resolution inspections of segments of the Mainlines that both

within HCAs and outside of HCAs. At the time of the 2007 Failure, Columbia had conducted high resolution inspections of 1,661 miles (67%) of the Mainlines. Incorporating information from the 2007 Failure into its ongoing risk assessment for IMP, Columbia has accelerated its high resolution inspection program. By December 2008, high resolution inspections had been conducted on 2,264 miles (89%) of the Mainlines. The remaining sections, with the exception of several river crossings, are scheduled to be completed in 2009.

(d) <u>Leak Detection Surveillance for Cased Pipe</u>

Prior to 2006, Columbia monitored casing vents with leakage detection equipment for all casings. It was as a result of Columbia's instrumented leak surveillance program for cased pipe that the 2001 Leak was detected and the affected pipe replaced. In 2006, as part of implementing a new work management system and in conjunction with the use of high resolution inspection to monitor corrosion, Columbia changed its procedure to require instrumented leak detection of all shorted casings using the Class Location frequencies described in 49 CFR 192.705.

V. <u>Detailed Columbia Responses to PHMSA Findings of Probable violations</u>

(a) **PHMSA Finding #1** – Probable violation of 49 CFR 192.605(a) & (e) (Procedural manual for operations, maintenance, and emergencies) and 192.617 (Investigation of failures)³ in connection with alleged failure by Columbia to follow its procedures for investigating pipeline failures

Detailed Columbia Response

³ Unless otherwise stated, all references to Sections herein are references to the regulations regarding Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards set forth in Title 49 of the Code of Federal Regulations, Chapter 1, Part 192, Subpart L (Operations).

The NOPV alleges that Columbia failed to follow its own Operations and Maintenance (O&M) procedures in investigating the Previous Incidents and in taking steps to minimize the likelihood of similar incidents occurring in the future and that these alleged failures contributed to the 2007 Failure (NOPV, p. 2). The NOPV specifically references Item 12 from pages 21 and 22 of the Incident Evaluation & Investigation Procedure contained in Columbia's Incident Management Plan (NOPV, p. 2), a copy of which is attached hereto as Exhibit 9. The language from Columbia's Incident Management Plan is from a version promulgated on June 16, 2004. Therefore, the procedure referenced could not have been applicable to the 2000 Failure and or the 2001 Leak. Furthermore, Columbia did not invoke its Incident Management Plan for the 2006 Leak because, while the 2006 Leak was expensive to fix, the leak itself was a Grade 2 leak (See Exhibit 3) and did not, in Columbia's judgment, meet the criteria for invoking the Incident Management Plan. Columbia asserts that it did follow its O&M procedures that were in place at the time of the 2000 Failure in investigating the 2000 Failure and in taking steps to minimize the likelihood of similar incidents occurring in the future (see Exhibit 4). Therefore, to the extent that PHMSA Finding #1 rests upon the NOPV assertion that Columbia failed to follow its O&M procedures as described in the NOPV (NOPV, p. 2), Columbia respectfully requests that PHMSA re-examine that basis for PHMSA Finding #1.

The NOPV acknowledges that Columbia arranged for a third party failure investigation to be performed to determine the cause of the 2000 Failure (NOPV, p. 2). The third party laboratory analysis conducted by Metallurgical Consultants Inc. ("MCI"), dated November 21, 2000, showed that external corrosion was the cause of the pipeline failure (a copy of the MCI analysis is attached hereto as Exhibit 10). The report states that, "The exact cause of the corrosion was not determined. However, the isolated pitting and otherwise un-corroded pipe, the morphology of the pitted surfaces, and the detection of sulfur on the pitted surface suggests that the pitting was due to microbiologically influenced corrosion." The NOPV asserts that Columbia did not perform any "MIC testing or any other investigation of external corrosion ...," (NOPV, p. 3, emphasis added).

However, Columbia completed a high resolution internal inspection for the Delhi, LA to Inverness, MS section of Line 200 on March 2, 2001 to, among other things, identify and locate external corrosion.

In Columbia's view, conducting inspections for wall loss from external corrosion, regardless of the cause of such corrosion, is preferable, for risk management purposes, to conducting a review limited to determining whether there are other instances of MIC.

Following the 2000 Failure, Columbia initiated a high resolution inspection program and completed second high resolution internal inspection of the Delhi, LA to Inverness, MS section of Line 200 on November 19, 2008 for the same purpose (see Exhibit 2 relating to high resolution internal inspections).

The 2001 Leak was discovered by Columbia following its planned continuous leak detection surveillance program for cased sections of Line 100. Columbia, in accordance with the MAPO, did not deem that any Formal Investigation (as described in the MAPO) was required. An investigation of the leak was performed and documented (see Exhibit 11, Investigation of Corrosion Leak on Cathodically Protected Line, Exhibit 12 External Pipe Inspection report, and Exhibit 13 Internal Pipe Inspection Report). The 2001 Leak was a reportable Incident, as defined in Section 191.3 due to the cost of replacing the affected pipe. Columbia determined that the 2001 Leak was caused by external corrosion under the casing spacers, presumably due to coating damage. Columbia's specific remedial action in that case was to install 312 feet of new coated-steel pipe by August 10, 2001 and additional cathodic protection in the form of a rectifier and deep well anode bed installed on October 4, 2001. Columbia determined that its existing high resolution pipeline inspection program to assess, among other things, external corrosion, together with Columbia's leak detection program using leak detection instruments at all cased segments of the pipeline, were appropriate measures to minimize the likelihood that leaks caused by external corrosion under casing spacers.

The 2006 Leak was discovered by Columbia during routine pipeline work at the location. Columbia classified the 2006 Leak as a Grade 2 leak. The 2006 Leak was a reportable Incident, as defined in Section 191.3, due to the cost of replacing the affected pipe.

The 2006 Leak was documented in the Work Management System using Columbia's Classify and Reporting Leaks Procedure 220.001.004 (see the completed Work Order relating to the 2006 Leak in Exhibit 3). The 2006 Leak was a reportable Incident, as defined in Section 191.3, due to the cost of replacing the affected pipe. Columbia determined that the 2006 Leak was caused by external corrosion under the casing spacers, presumably due to coating damage (see Exhibit 14, Form RSPA F7100.2 Part F). Columbia's specific remedial action in that case was to install 200 feet of new coated-steel pipe and fill the casing with a non-conductive casing filler material. Columbia determined that its existing high resolution pipeline inspection program to assess, among other things, external corrosion, together with Columbia's leak detection program using leak detection instruments at all cased segments of the pipeline, were appropriate measures to minimize the likelihood that leaks caused by external corrosion under casing spacers.

Following the 2007 Failure, Columbia immediately implemented its O&M emergency response and investigation procedures. All actions were observed and approved by PHMSA, modifications made as requested, and results shared. Columbia also immediately accelerated its high resolution inspection program to include those sections of the Mainlines that had not previously been so analyzed.

The NOPV alleges that Columbia's alleged failure to comply with Section 192.605(a) & (e), Section 192.617, and Columbia's O&M procedures "resulted in measures not being taken that could have averted" the 2007 Failure (NOPV, p. 3). Columbia disputes that it failed to comply with Section 192.605(a) & (e), Section 192.617 or Columbia's O&M procedures. Section 192.605(a) requires

operators to "prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response" and provides requirements for periodic reviews and updates of such manuals." Columbia had prepared and updated as required such a manual and followed the requirements of that manual as it existed at the time of the applicable illncident.

Columbia also disputes that it did not institute procedures following each of the Previous Incidents to avert similar incidents in the future. As described above, Columbia had been using standard resolution inline inspection tools as far back as 1980 and ran a high resolution inspection as a specific response to the 2000 Failure. The section of Line 100 involved in the December 14, 2007 Incident was inspected with a standard resolution tool in 1996.

The NOPV alleges that a cathodic protection pipe-to-soil reading taken at the site of the 2001 Leak at the time of the 2001 Leak was a negative 818 millivolts, which is below the negative 850 millivolt level required by Section 192.463 and Appendix D (NOPV, p. 3). The NOPV asserts that "...the reading should have prompted further investigation and corrective actions. However there are no recommendations found in the Columbia Gulf documents for actions to correct deficiencies in the cathodic protection system, investigate other locations on the pipeline system for similar cathodic protection deficiencies, or investigate potential coating problems." (NOPV, p.3). As shown in Exhibit 11, the pipe to soil reading taken on June 25, 2001 at the 2001 Leak location was a negative 927 millivolts, or 77 millivolts more negative than the required negative 850 millivolts. Columbia has, and at all times relevant to the NOPV had, an active cathodic protection program. Attached hereto is Exhibit 15 that shows cathodic protection system modifications for the period 2000-2008 and Exhibit 16, a further description of Columbia's cathodic protection program over the relevant period.

Finally, the NOPV indicates that information on the Previous Incidents was not made available to PHMSA immediately upon PHMSA's informal requests

following the 2007 Failure (NOPV, p. 2). While it is true that it took time for Columbia to locate, assemble, and deliver information on the Previous Incidents, Columbia was immediately responsive to PHMSA's informal requests for information (see Exhibit 17 attached hereto for a description of what information was provided when to PHMSA in response to its informal requests). In addition, Columbia timely responded to PHMSA's January 29, 2008 Request for Specific Information.

Columbia asserts that at all relevant times: (a) Columbia in fact did have O&M procedures in place meeting the requirements of Sections 192.605(a) & (e) and that Columbia followed those procedures as they existed when each of the Previous Incidents occurred and following the occurrence of the 2007 Failure; and (b) Columbia's O&M procedures included procedures for investigating accidents and failures as required by Section 192.617 and that Columbia followed those procedures as they existed when each of the Previous Incidents occurred and after the occurrence of the 2007 Failure. Columbia asserts that it did not violate Sections 192.605(a) & (e) or Section 192.617. Therefore, the preliminary assessment of a civil penalty of \$760,000 in connection with PHMSA Finding #1 should be rescinded or significantly reduced.

(b) PHMSA Finding #2 – Probable violation of 49 CFR 192.605(a) &
 (e) (Procedural manual for operations, maintenance, and emergencies) and 192.613 (Continuing Surveillance) in connection with Columbia's alleged failure to adopt and follow sufficient continuing surveillance programs

Detailed Columbia Response

The NOPV alleges that Columbia did not define and implement a program of continuing surveillance specifically based upon the Previous Incidents to prevent recurrences (NOPV, p. 4). In Columbia's judgment, its ongoing high resolution inspections of the Mainlines, coupled with its instrumented leak detection surveillance program for all cased pipe, which was in place prior to 2000, were

appropriate to prevent recurrences. Indeed, Columbia's discovery of the leak identified herein as the 2001 Leak was a direct result of Columbia's instrumented leak detection surveillance (See Exhibit 18 for patrolling documentation at the 2001 Leak location).

The NOPV notes that "the instrumented surveys that were performed were ineffective in detecting the leak that led" to the 2007 Failure (NOPV, p. 5). However, the M&MT report specifically finds that there was no evidence that the pitting corrosion on the affected section of pipe had penetrated the wall of the pipe prior to the pipe's failure. Therefore, there was no leak to detect at the time that the most recent instrumented leak detection survey was performed for the cased section of the pipe that failed in the 2007 Failure (See Exhibit 19 for the June, 2007 instrumented casing leakage survey documentation). Furthermore, it was precisely because of the instrumented surveys that the 2001 Leak was found.

Beginning in the 1980s, Columbia upgraded its facilities, including the Mainlines, by installing pig launchers, pig receivers, and through conduit valves for pig passage in order to commence a program of in-line inspections, even though such inspections were not required at the time.

Following the 2007 Failure, Columbia acted promptly and prudently by accelerating the high resolution in-line inspection schedule to include the remaining sections of the Mainlines that had not been inspected with high resolution tools.

Columbia asserts that at all relevant times, Columbia followed appropriate procedures for continuing surveillance. Therefore, the preliminary assessment of a civil penalty of \$35,000 in connection with PHMSA Finding #2 should be reduced.

(c) **PHMSA Finding #3** – Probable violation of 49 CFR 192.605(a) (Procedural manual for operations, maintenance, and emergencies) in connection with Columbia's allegedly improper failure to perform an investigation to determine if the applicable casing was metallically shorted.

Detailed Columbia Response

The NOPV alleges that Columbia did not follow its procedures for investigation of shorted casings (NOPV, p. 6). Specifically, the NOPV cites Columbia O&M procedure 70.01.01, "External Corrosion Control, dated 03/05/2007 (a copy of which is attached hereto as Exhibit 20), which provides that "As a general rule, if the potential difference between the casing and the pipeline is over 100mV, the casing should be considered not shorted." The same procedure provides in addition, "If the status of the casing is unknown, it shall be treated as a shorted casing." (NOPV, p. 6). An additional provision, found between the two cited in the NOPV, provides that "If the potential difference between the casing and the pipeline is less than 100 mV, the casing will be considered shorted until further testing is completed to determine its status (clear or shorted). While admittedly not a model of clarity, the procedure in place at the time could reasonably be interpreted to provide that a potential difference between casing and the pipeline of 100 mV indicated neither a short nor a non-short, leaving the determination to Columbia's discretion. Columbia's procedure has since been clarified to provide that readings of 100 mV or less indicate a short, but Columbia's procedure, at the time of the July 27, 2007 reading at the Interstate 20 crossing, did not require an investigation to determine if the casing was metallically shorted and therefore, Columbia's failure to conduct such an investigation was not a violation of its O&M procedures. In addition, and more significantly, the pipe-to-soil reading actually resulted in the casing where the 2007 Failure occurred to be added to the list of shorted casings that were to be included in the instrumented leak survey. Therefore, the reading was actually treated as a short. Moreover, even if the casing had been tested for gas leaks, no leak would have been detected since

there was no evidence that the pitting had penetrated the wall of the pipe. (See M&MT report at Exhibit 1, page 29, number 6).

Furthermore, there has been no conclusion that a metallic short was a contributing factor to the 2007 Failure or to any of the Previous Incidents. For example, the M&MT investigation found that "Moisture in the atmosphere and standing water in the bottom of the casing, in conjunction with a high concentration of chlorides in the environment, and damage to and localized failure of the coating are responsible for the corrosion noted and the failure of the pipe." (M&MT Report at Exhibit 1, page 30, Item 11).

Columbia asserts that: (a) at all relevant times Columbia in fact did have O&M procedures in place meeting the requirements of Sections 192.605(a): (b) Columbia followed those procedures as they related to conducting an investigation of a metallic short based on the July 27, 2007 reading at the Interstate 20 crossing and Columbia treated the July 27, 2007 reading as a short by including the applicable casing in the instrumented leak survey program; and (c) the investigation findings do not indicate that a metallic short was a contributing factor to the 2007 Failure or to the Previous Incidents. Columbia asserts that it did not violate Sections 192.605(a) or its O&M procedures relating to conducting investigations of metallic shorts, that July 27, 2007 reading cited in the NOPV (NOPV, p. 6) was treated, contrary to the assertion in the NOPV and that, in any case, a metallic short was not a contributing factor to the 2007 Failure or the Previous Incidents. Therefore, the preliminary assessment of a civil penalty of \$760,000 in connection with PHMSA Finding #3 should be rescinded or significantly reduced

VI. Applicability of 49 CFR 190.223 (Maximum penalties)

49 CFR 190.223 provides that a civil penalty "may not exceed \$1,000,000 for any related series of violations. The alleged violations are related, i.e. more than one violation has been cited in connection with the same incident, thus as a matter of law the maximum civil penalty cannot exceed \$1 million and, under the

circumstances present here, which include Columbia's significant continuing surveillance activities and substantial adherence to its procedures, Columbia respectfully submits that the penalty should be substantially less than \$1 million.

VII. Conclusion

In view of the foregoing arguments regarding the violations alleged in the NOPV:

- (a) that Columbia investigated each of the Previous Incidents and the 2007 Failure in accordance with the O&M procedures in place at the time;
- (b) that Columbia conducted an appropriate continuing surveillance program specifically designed to detect leaks and external corrosion on cased pipe;
- (c) that metallic shorts were not implicated in any of the Previous Incidents or in the 2007 Failure, Columbia did not violate its O&M procedures with respect to metallic shorts, and Columbia included the applicable casing in the list of shorted casing to be subjected to instrumented continuing surveillance; and
- (d) that, in any case, the alleged violations are related and thus the maximum civil penalty cannot exceed the statutory maximum of \$1,000,000, and, based on the foregoing should in Columbia's view be substantially less than \$1,000,000;

Columbia respectfully requests that: (a): the proposed \$760,000 civil penalty for: PHMSA Finding #1 be set aside or significantly reduced; (b) the proposed \$35,000 civil penalty for PHMSA Finding #2 be reduced; (c) the proposed \$760,000 civil penalty for PHMSA Finding #3 be rescinded or significantly reduced; and (d) that PHMSA acknowledge that the alleged violations are related.

Please do not hesitate to contact me if PHMSA requires additional information on which to make its final determination. We would welcome an opportunity to meet with you and your team to discuss this response to the NOPV.

Very truly yours, Victor Gaglio Senior Vice President Operations and Engineering