



**PLAINS**  
**PIPELINE, L.P.**

May 3, 2019

Certified Mail No: 7010 1870 0001 4873 2270

Ms. Mary McDaniel  
Regional Director - Southwest Region  
Pipeline and Hazardous Materials Safety Administration  
8701 S. Gessner, Suite 630  
Houston, TX 77002

**Subject: Response to Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order CPF 4-2019-5004**

Dear Ms. McDaniel:

On February 1, 2019, Plains Pipeline, L.P. (Plains), received Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order - CPF No. 4-2019-5004 dated January 31, 2019 (NOPV/PCP/PCO), from the Pipeline and Hazardous Materials Safety Administration (PHMSA) concerning an inspection conducted by the PHMSA Office of Pipeline Safety (OPS) at the Cotton Draw Pipeline in Midland, Texas, on August 7-11, 2017. The NOPV/PCP/PCO provided Plains with 30 days to respond, however by email dated Tuesday, February 12, 2019, the response date was extended to May 6, 2019.

This letter provides Plains response to the NOPV/PCO. Each alleged violation is listed below with the same number in the NOPV/PCO, paraphrased for brevity, identified with ***boldface italic*** text, and followed by the corresponding Plains response:

1. ***“Plains failed to construct the Cotton Draw Pipeline in accordance with written specifications using an unqualified welding procedure”***, as required by §195.214.

Plains Response: With respect to NOPV Item 1, Plains does not challenge the underlying finding of violation but does challenge the selected Proposed Action in Part E3 of the Violation Report and corresponding Proposed Compliance Order in the NOPV. Plains respectfully seeks reclassification of the Proposed Action in Part E3 of the Violation Report and in the NOPV from a “Proposed Compliance Order” to a “Warning Item.” If PHMSA determines this reclassification to be inappropriate, Plains respectfully requests that PHMSA apply the information supplied by Plains in this filing to determine that (1) modification of the PCO is warranted, (2) Plains has completed the Proposed Compliance Order actions, and (3) the Compliance Order item will be closed concurrently with the issuance of a Final Order.

Plains confirms that welding procedures CS-G4265M211 and CS-G4265L205 were qualified by welding API 5L X42 to X65 pipe, and also confirms that these welding procedures were applied to API 5L X52 pipe for the Cotton Draw Pipeline. Plains recognizes that this is a violation of the base material groupings of API 1104 (IBR) Section 5.4.2.2.

However, while the welding procedures were qualified using X42 to X65 pipe, the procedures used by Plains do produce a sound and satisfactory girth weld on X52 pipe. The information in Attachment 1 demonstrates that the girth welds on the Cotton Draw Pipeline did meet the strength and mechanical property requirements for X52 pipe girth welds and do not pose a safety hazard.

Specifically, in November 2015, Plains requalified CS-G4265L205 using 20 inch diameter by 0.500 inch wall thickness X60 pipe to demonstrate that the welding procedure meets all requirements of API 1104 to produce an acceptable weld with sufficient mechanical properties for the base material group consisting of greater than X42 but less than X65, which covers X52. The procedure qualification record is presented as Attachment 1. The successful completion of the requalification clearly demonstrates that the procedure is satisfactory for soundly welding X52 pipe.

Modification of Proposed Action to “Warning Item”: Based on the information presented, Plains respectfully requests that PHMSA (1) reclassify the Proposed Action contained in Part E3 of the Violation Report and in the NOPV from a “Proposed Compliance Order” to a “Warning Item” and (2) remove PCO Item 1 contained in the NOPV. The information presented by Plains demonstrates that the welds have the required strength and mechanical properties for the application on Cotton Draw’s X52 pipe. Thus, the purpose of the proposed compliance action “to show that the welds have the required strength and mechanical properties for the application” has already been achieved through Plains’ prior actions. This renders the PCO item unnecessary and, as discussed below, a greater risk to safety than withdrawing the PCO item. For these reasons, Plains requests that PHMSA change Item 1 to a Warning Item and withdrawn the associated PCO item.

Modification and Completion of PCO: In the event PHMSA does not modify the proposed action for NOPV Item 1 to a “Warning Item,” Plains respectfully requests that PHMSA modify PCO Item 1 to reflect the actions taken by Plains and concurrently close this Compliance Order item at the time PHMSA issues a Final Order.

With respect to the PCO, Plains removed welding procedures CS-GS4265M211 and CS G4265L205 from its welding manual in January 2015. Plains notes that these were legacy procedures to cover transition welds between X42 and X65 pipe. Plains commissioned testing, including destructive testing, to confirm that the welding of two joints of X60 pipe using the procedures in question would produce welds that meet required strength and mechanical properties for the API 1104 base material group consisting of greater than X42 but less than X65. The procedure qualification record enclosed as Attachment 1 confirms that welds made with CS-G4265M211 or CS-G4265L205 meet API 1104 strength and mechanical property requirements for welding X52 pipe.

The information presented by Plains demonstrates that proposed corrective actions to excavate, sample, cut out, and re-weld the pipeline are unnecessary, unjustified, and would result in a greater safety threat to people and the environment than the actions already taken by Plains to demonstrate the safety margin of the X52 girth welds. Importantly, after the initial commissioning period, pipeline failure rates decrease, and girth welds are unlikely to fail unless subjected to severe axial strains from external loads. With this in mind, the compliance action proposed by PHMSA must take into account that excavation damage is one of the leading causes

of pipe failure, as the tragic incident on April 10, 2019, in Durham, North Carolina highlights. Given that Plains has demonstrated the safety margin of the girth welds at issue, excavating the pipe with these girth welds would result in a higher safety threat than leaving the pipe buried and welds in place. Thus, the proposed corrective actions may actually decrease pipeline safety, which in this particular instance is contradictory to the mission of PHMSA.

Plains respectfully requests that PHMSA modify the PCO to reflect the actions Plains has taken to demonstrate the safety of the X52 girth welds at issue and close the Compliance Order at the time PHMSA issues a Final Order. In the event PHMSA does not take this action, and additional weld tests are required to resolve this issue, Plains offers to use CS-G4265M211 with qualified welders to produce and destructively test twelve (12) new girth welds using 12 inch diameter by 0.250 inch wall thickness API 5L X52 pipe to API 1104 Section 5 requirements.

2. ***“Plains failed to ensure that production welds made on the Cotton Draw Pipeline were made by welders who were properly qualified”***, as required by §195.222.

Plains Response: With respect to NOPV Item 2, Plains respectfully contests the finding of violation and Proposed Civil Penalty. Plains requests that PHMSA withdraw this item and the associated Proposed Civil Penalty. In the event PHMSA does not withdraw its finding of violation, Plains requests that PHMSA amend the Proposed Action in Part E3 of the Violation Report and in the NOPV from a “Proposed Compliance Order” to a “Warning Item” and withdraw the PCP. Finally, if PHMSA determines that a civil penalty is necessary, Plains demonstrates that the selections in the Proposed Civil Penalty Worksheet should be modified and the civil penalty significantly reduced.

Withdrawal of Item 2 is warranted because the 13 welders at issue were qualified to perform welds that meet the mechanical and strength requirements for the Cotton Draw X42 girth welds, as confirmed by weld testing. Of the 13 welders referenced in Item 2, all 13 of their welder qualification tests using CS-G4265L205 on X52 pipe met the API 1104 procedure qualification requirement for crossweld tensile testing of 66,000 psi minimum ultimate tensile strength (UTS) for X52. This data is presented in Table 1 and is statistically significant with all 26 out of 26 crossweld tensile tests having UTS values that exceed the minimum requirements for X52 in API 5L. Note that all of the welder qualification tests were performed on the same diameter (12 inch) and grade (X52) as the project pipe. Also, all crossweld tensile specimens failed in the pipe, indicating the weld strength is higher than the pipe strength, which provides even higher confidence the procedure produces welds meeting X52 strength requirements. This data fully establishes the welders were properly qualified to perform the girth welds on the Cotton Draw X52 pipe.

Welder	UTS (psi)	UTS (psi)	Welder	UTS (psi)	UTS (psi)
JDB	79,690	78,551	CLM	82,492	86,431
CJC	79,339	75,891	JLR	69,973	76,137
MH	76,439	74,420	MMR	80,891	78,118
MEJ	73,775	72,871	JTS	73,828	73,981
RCL	77,711	80,181	SMS	77,294	80,855

JKM	77,693	76,315	JRT	77,746	78,954
MPM	72,080	75,891			

Table 1: Welder qualification crossweld tensile test results on 12 inch diameter X52 pipe

Plains did use CS-G4265L205 on X52 pipe for the butt weld portion of the API 1104 Section 6 multiple qualification test. The multiple qualification test results in the welders being qualified to weld on all base material grades, regardless of the which grade was tested. As the welder qualification procedure mirrors the CS-G4265L205 November 2015 requalification procedure on X60 pipe to the base material group consisting of greater than X42 but less than X65, substitution of the X52 during welder qualification does not result in any uncertainty in the welder’s skill or range of qualification. The intent of welder qualification is to evaluate welder skill, and all 13 welders passed the multiple qualification test. Also, as base material is not an essential variable for welder qualification, API 1104 allows for the substitution of tensile strength test specimens for nick-break test specimens in Section 6.5.2. This demonstrates that the welders on the Cotton Draw Pipeline were qualified, as the multiple qualification test allows welding on all base material grades, regardless of which grade was tested.

Accordingly, Plains requests that PHMSA withdraw this item and the associated Proposed Civil Penalty.

Modification of Proposed Action to “Warning Item”: In the event PHMSA retains this finding of violation, based on the information presented, Plains respectfully requests that PHMSA (1) reclassify the Proposed Action contained in Part E3 of the Violation Report and in the NOPV from a “Proposed Civil Penalty” to a “Warning Item” and (2) withdraw the PCP contained in the NOPV.

Reduction of Civil Penalty: If PHMSA retains the Proposed Civil Penalty the penalty amount should be significantly reduced. The demonstrated facts with respect to Item 2 justify modification of the “Assessment considerations” selections in the Proposed Civil Penalty Worksheet, which would result in a significant reduction in the PCP.

First, the “Nature” selection should be changed from “Activities” to “Records.” The NOPV Item 2 allegation explicitly states: “A review of the welder qualifications indicated that 13 welders performed production welds on the Cotton Draw pipeline and Plains did not have qualification records to validate that they were qualified to the procedure used.” While the basis for the allegation is focused on maintenance of records documenting the welder qualification, the information presented by Plains demonstrates that all 13 welders were clearly qualified to perform the X52 welds for Cotton Draw. If PHMSA contends that Plains nonetheless used the wrong procedure or documentation for establishing the welders’ qualifications, this is a “records” issue, not an “activity.” This change will result in a reduction from 3 points to 1 point.

Second, the “numbers of instances of violation” in the “Gravity” section should be reduced from 13 to 1. The information Plains has submitted demonstrates that all welders were qualified to the same procedure that was adequate to show their qualification for the X52 welds performed. If PHMSA believes that a civil penalty is still warranted under these facts, Plains respectfully submits that Plains’ completion of a qualification procedure for all welders resulting in demonstrably sound girth welds provides grounds for changing the number of instances to 1. In

this case, the selection of 1 instance would reflect that all welders were qualified to the same multiple qualification test that was adequate but that PHMSA may determine was not the qualification procedure that should have been used for the Cotton Draw X52 pipe.

Third, the selection indicating that the “violation occurred in areas that are not in an HCA” in the “Gravity” section should be changed. The information provided by Plains demonstrates that pipeline safety was not affected.

In addition to the facts established above, further support that the welding at issue and procedures utilized do not pose a safety hazard is provided by Plains’ policy requiring nondestructive testing (NDT) of all pipeline girth welds to the acceptability standards in API 1104. On the Cotton Draw Pipeline, the soundness of every girth weld was verified during production via radiographic testing. The policy of 100% non-destructive testing (NDT) for all welds is above and beyond the requirements of 49 CFR 195. Additionally, the pipeline was hydrostatically tested to 1903 psi to establish a maximum operating pressure of 1440 psi and to verify that the welds are acceptable. Thus, this Item 2 does not warrant a “Gravity” selection that is more severe than “The violation occurred; however pipeline safety was minimally affected.” This change would result in a reduction from 7 points to 1 point, with the total “Gravity” points being reduced from 23.80 to 2.

Fourth, the “duration of the longest violation in days” should be changed from 10 to 1. The allegation in Item 2 concerns the qualification of welders to perform welding on the Cotton Draw pipeline. The welders were to be qualified once in a 6 month period, and qualification happens over a period of less than 1 day. Given that all of the welders were in fact qualified, the issue of whether the selected procedure met the qualification requirements does not warrant a finding that the longest violation exceeded 1 day, especially given that the welds have been shown to be sound. While this selection may not have been used as an adder or multiplier for the civil penalty, Plains requests this change in the event it has an impact on the total civil penalty calculation.

For the reasons above, Plains respectfully requests that PHMSA make each of the specified changes to the Proposed Civil Penalty Worksheet and recalculate any assessed civil penalty based on the revised point total.

3. ***“Plains failed to ensure that adequate firefighting equipment was provided at each pump station and breakout tank area. Plains failed to ensure that firefighting equipment monthly and annual inspections were performed”***, as required by §195.430 and Plains Procedure P-195.430.

Plains Response: Plains respectfully contests NOPV Item 3 and requests the withdrawal of this item and the associated Proposed Compliance Order item (PCO item 2).

This alleged violation was identified as unsatisfactory in the Post-Inspection Preliminary Findings dated August 11, 2017. Plains completed construction of fire extinguisher installations at Section 17, Section 29, and the Stateline Injection by the following Tuesday,

August 15, 2017. On September 6, 2017, via electronic and certified mail, Plains provided the following documentation to address this concern:

- Photographs of Fire Extinguisher Installations at Section 17, Section 29, and the Stateline Injection taken on August 18, 2017.

Please note that because these are unstaffed, remote locations, that prior to the installation of the dedicated fire extinguishers, adequate fire protection was provided by portable handheld fire extinguishers of various sizes dependent on the type of Plains operations and maintenance vehicle. These included a fully charged and operable fire extinguisher, minimum-capacity 8-ounce liquid or 1-pound dry chemical, with a 4BC or higher rating, or a dry-chemical fire extinguisher with a minimum 2-1/2 -pound capacities and 4BC or higher rating, or a Dry Chemical Fire Extinguisher, Size 20 Pounds, Discharge Time 20-24 Seconds, Operating Pressure 195 PSI, Maximum Range 20 Feet, UL Rating 10A, 80B, C, USCG Bracket or equivalent, Cylinder Material Steel, Height 21.6 Inches, Width 7.0 inches, or a Dry Chemical Fire Extinguisher, Size 10 Pounds, Discharge Time 17-21 Seconds, Operating Pressure 195 PSI, Maximum Range 20 Feet, UL Rating 4A, 80B, C, USCG Bracket 5T909 or equivalent, Cylinder Material Steel, Height 21.2 Inches, Width 5.1 Inches.

The fire extinguishers described above are active fire protection devices used to extinguish or control small (incipient) fires in emergencies. Portable fire extinguishers are intended as a first line of defense to cope with fires of limited size. They are required even if the facility, building, or structure is equipped with automatic sprinklers, standpipe and hose, or other fixed fire protection equipment. Inspection records are securely attached to each individual fire extinguisher.

As established above, Plains contends that adequate firefighting equipment was present any time operations or maintenance personnel were on site. Further Plains has amended the operations and maintenance plan to state, “Prior to the operation of any new pump station or breakout tank facility, adequate firefighting equipment will be installed.” Accordingly, Plains respectfully requests that this alleged violation be withdrawn along with the Proposed Compliance Order item.

Modification and Completion of PCO: In the event PHMSA does not withdraw NOPV Item 3 and its associated PCO, Plains respectfully requests that PHMSA modify PCO Item 2 to reflect the action taken by Plains noted above, and concurrently close this Compliance Order item at the time PHMSA issues a Final Order.

4. *“Plains failed to install a thermal relief valve (TRV 432), located at Section 29 (MM 1) prior to the operation of the Cotton Draw Pipeline”*, as required by §195.428.

Plains Response: Plains does not contest NOPV Item 4 and has acted to address PHMSA’s concerns.

This alleged violation was identified as unsatisfactory in the Post-Inspection Preliminary Findings dated August 11, 2017. Plains inspected and corrected the Overpressure Control

device at Section 29 on August 11, 2017. On September 6, 2017, via electronic and certified mail, Plains provided the following documentation to address those concerns:

- Photograph of overpressure control device (TRV-432), Mercer 1" taken on August 18, 2017, reflecting both valves in the bypass loop opened and locked open.
- Plains Inspection Report of the Section 29 overpressure control device dated August 11, 2017.

Plains takes seriously its obligations to comply with the requirements of the PHMSA regulations. To that end, Plains is committed to working with PHMSA to fully resolve this matter in an efficient and mutually agreeable manner. We look forward to your consideration of our response and please do not hesitate to contact me if you have any questions or require any additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Wm. Dean Gore, Jr.", with a long horizontal line extending to the right.

Wm. Dean Gore, Jr.  
Vice President, Environmental & Regulatory Compliance

Enclosures

cc: Wayne Roberts, Plains  
Ngiabi Gicuhi, Plains  
Justin Dixon, Plains  
John Haldiman, Plains  
Sherri Adkins, Plains  
File

**ATTACHMENTS**  
**Attachment 1**

*Procedure Qualification Record for CS-G4265L205 using X60 pipe*



**PLAINS**  
ALL AMERICAN  
PIPELINE, L.P.

Procedure Qualification Record No.:  
CS-G4265L205

**Procedure Qualification Record**

Based on API 1104 20<sup>th</sup> Edition

WPS No.:	CS-G4265L205 Rev 1.	Date:	11/24/2015
Process:	SMAW	Welding Position:	5G
Welder #1:	Justin C. Hargrove	Social Security #1:	XXX-XX-7645
Welding Machine #1:	Lincoln 200 D	ID Number #1:	JH
Welder #2:	Gustavo Galindo	Social Security #2:	XXX-XX-3234
Welding Machine #2:	Lincoln 3000	ID Number #2:	GG
Test Location:	Plains Wink South Yard / Big State X-Ray	Welding Time:	35 min
Welding Machine Size:	200 / 300	Joint Design:	Single V Groove
Mean Temperature:	51°F / 73°F	Weather Conditions:	Clear and sunny
Time of Day:	AM	Wind Break Used:	N/A
Filler Metal:	E 6010, Root/E 8010, Hot Pass, Filler and Cap	Direction of Welding:	Downhill
Preheat Used:	N/A	PWHT:	None/As Welded
Pipe Material:	API 5L X60	Heat Number:	ZK3656
Pipe Outside Diameter:	20.750"	Pipe Thickness:	0.344

**Electrical Characteristics**

Pass	Electrode	Size, in	AWS Spec.	Current/Polarity	Weld Direction	Volts	Amps	Travel Speed, ipm
Root	E 6010 (5P)	5/32	A5.1	DC/Reverse	Downhill	23-28	135-165	10-16
Hot Pass	E 8010 (70+)	5/32	A5.5	DC/Reverse	Downhill	23-28	135-165	10-16
Filler(s)	E 8010 (70+)	3/16	A5.5	DC/Reverse	Downhill	24-28	170-195	9-14
Cap	E 8010 (70+)	3/16	A5.5	DC/Reverse	Downhill	24-30	170-200	10-14

**Tensile Test**

Specimen	Width, in	Thickness, in	Area, in <sup>2</sup>	Max Load, lbs.	Tensile Strength, psi	Fracture Location	Remarks
Tensile #1	1.00	.338	.3380	29,854	88,325	Pipe Material	Acceptable
Tensile #2	1.02	.336	.3427	29,854	87,114	Pipe Material	Acceptable
Tensile #3	1.08	.338	.3650	32,450	88,904	Pipe Material	Acceptable
Tensile #4	1.08	.339	.3661	30,503	83,318	Pipe Material	Acceptable

**Bend & Nick Test**

Bends			Nick Breaks		
No.	Type	Results	No.	Type	Results
Bend #1	Face	Acceptable	Nick #1	Face	Acceptable
Bend #2	Face	Acceptable	Nick #2	Face	Acceptable
Bend #3	Root	Acceptable	Nick #3	Root	Acceptable
Bend #4	Root	Acceptable	Nick #4	Root	Acceptable

**Notes**

Physical witness and supervision of PQR test sample welding conducted by Joe Pacheco CPWI # 63726249

**Nondestructive Testing**

Visual Examination:	N/A	Report No.:	N/A
Radiographic Test:	N/A		
Radiographic Test by:	N/A		
Other:			

**Certification**

Testing Lab:	Big State X-Ray Inc	Lab Number:	N/A
Tested by:	Paul Dremler	CWIB:	14123171
Supervise by:		Date:	11-24-2015
Additional Approving Authorities	Company:	Plains All American Pipeline, L.P.	
	By:	<i>John N. Haldiman</i>	