NOTICE OF PROBABLE VIOLATION
and
PROPOSED CIVIL PENALTY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 28, 2018

Mr. Dean Gore
Vice President Environmental and Regulatory Compliance
PAA Natural Gas Storage, LLC
333 Clay Street
Suite 1600
Houston, TX, 77002

CPF 3-2018-1006

Dear Mr. Gore:

On September 19-23 and October 18-20, 2016, representatives of the Michigan Public Service Commission (MIPSC), acting as an interstate agent for the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected PAA Natural Gas Storage, LLC ("Plains All American" or "Plains") records and facilities in Columbus, Michigan.

As a result of the inspection, it is alleged that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violation(s) are:

1. **§191.17 Transmission systems; gathering systems; liquefied natural gas facilities; and underground natural gas storage facilities: Annual report**

   (a) Transmission or Gathering. Each operator of a transmission or a gathering pipeline

system must submit an annual report for that system on DOT Form PHMSA 7100.2.1. This report must be submitted each year, not later than March 15, for the preceding calendar year, except that for the 2010 reporting year the report must be submitted by June 15, 2011.

Plains All American did not accurately report the following on the 2014 and 2015 annual reports:

1) Part I of the 2015 annual report for Michigan (page 16 and 17) incorrectly included the 6-inch and 8-inch diameter pipelines as gathering. These should be captured in Part H as Transmission pipelines, since Plains' Michigan facilities do not have any gathering because all wells are used for storage. Also, the annual report did not account for 0.9 miles of 16-inch diameter pipeline to well pad 5.

2) Part L of the 2015 annual report for Michigan (page 18) appeared to be inaccurate. It included 6.87 miles of HCA, but there are 9.0 miles of class 3 and other HCA locations in class 1 and 2 locations. Plains uses Method 1 to define HCA locations.

3) Part M of the 2014 annual report for Michigan (page 19) did not indicate any failures on the system. However, there was a third party damage failure on June 3, 2014, and a rupture due to incorrect operation on June 7, 2014.

Additionally, the 2016 Annual Report, submitted on March 14, 2017, had the same inaccuracies noted above.

2. §192.163 Compressor stations: Design and construction.

(e) Electrical facilities. Electrical equipment and wiring installed in compressor stations must conform to the NFPA-70, so far as that code is applicable.

Plains did not follow the applicable requirements of NFPA 70 in the compressor room of Kimball Compressor station and the in building at Vector Booster Station.

At the Kimball Compressor Building, there were rectangular junction boxes in the compressor room without Class I, Div. II markings. Also, the Vector Booster Station compressor building had wire junctions without covers in the engine cooler room and an exposed grounding cable conduit. Plains fixed the junction boxes at Kimball shortly after MIPSC's inspection.

3. §192.479 Atmospheric corrosion control; General.

(a) Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.

Plains did not clean and coat several pipe nipples and other small components at Columbus Compressor Station and Kimball Compressor Station. At the time of MIPSC's 2016 field inspection, both stations exhibited atmospheric corrosion on the pipe nipples and other small components. The last atmospheric coating inspection by Plains was on August 8, 2015 and indicated "needs painting", but corrosion was not identified in Plains' documentation.

4. §192.465 External corrosion control: Monitoring.

(b) Each cathodic protection rectifier or other impressed current power source must be inspected six times each calendar year, but with intervals not exceeding 2 1/2 months, to insure that it is operating.

Plains did not inspect five rectifiers within the maximum 2½ month interval.

Review of the rectifier records for Columbus 3, Vector, Marysville, Bartlett Rd, and Welding Rd rectifiers found that the rectifier inspections occurred on November 1, 2013 and February 28, 2014. These inspections exceeded the maximum 2½ month interval by 43 days.

5. §192.603 General provisions

(b) Each operator shall keep records necessary to administer the procedures established under §192.605.

Plains did not document and keep records for the review of employee's activities to determine whether the procedures were effectively followed in an emergency [see §192.605(e) and §192.615(b)(3)]. Additionally, Plains did not document and keep records of the leak surveys required by their *O&M Procedure 467* when a shorted casing cannot be cleared [see §192.605(b)(2) and §192.467].

On June 3, 2014, Plains experienced a third party damage incident to their pipeline and a subsequent explosion at their compressor station in Ray Township on June 7, 2014. Review of both these incidents found that Plains did not document the review of the employee's actions. Plains' *Procedure 192.615(b)(3)* describes what must be done; however, there is no mention of how the required review should be documented.

Also, Plains has a shorted casing at M-19 in the line section "Hydrocarbon to Ray." Plains' *O&M Procedure 192.467* states that, "Excavate the ends of the casing and inspect the clearance... if contact exists, reposition the carrier... When a shorted casing cannot be cleared... Leak survey 4 times each calendar year." Per Plains personnel surveys were conducted, but they could not provide documentation of these actions.

6. §192.605 Procedural manual for operations, maintenance, and emergencies

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

Plains did not follow their procedures as specified in the O&M Manual for class location surveys that are required by §192.605(e) and§192.613(a).

Plains' O&M Manual*, Section 609* states, "Once each calendar year, at intervals not exceeding 15 months, a Class Location Survey will be conducted." The 2014 survey occurred on December 22, 2014 and the next survey occurred on March 13, 2016, and no survey was conducted in calendar year 2015.

7. §192.619 Maximum allowable operating pressure - Steel or plastic pipelines

(a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following:

(2) The pressure obtained by dividing the pressure to which the segment was tested after construction as follows:

(ii) For steel pipe operated at 100 p.s.i. (689 kPa) gage or more, the test pressure is divided by a factor determined in accordance with the following table:

	Factors (see Note)		
Class location	**Segment Installed Before Nov. 12, 1970**	**Segment Installed After Nov. 11, 1970**	**Segment Converted under §192.14**
1	1.1	1.1	1.25
2	1.25	1.25	1.25
3	1.4	1.5	1.5
4	1.4	1.5	1.5

Plains did not correctly establish the maximum allowable operating pressure (MAOP) after they hydrostatically tested the Vector/MichCon 20-inch pipeline in 2014.

The Vector/MichCon 20-inch pipeline was hydrostatically tested in 2014 to re-establish the MAOP after the compressor station rupture on June 7, 2014. The pressure test records and MAOP documentation indicates that the MAOP of this line was established at 1125 psig. However, the documented pressures and calculated high point test pressure (1624 psig) indicates that the 1.5 test pressure factor required for Class 3 locations only substantiates an MAOP of 1082 psig.

8. §192.706 Transmission lines: Leakage surveys.

Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year. However, in the case of a transmission line which transports gas in conformity with §192.625 without an odor or odorant, leakage surveys using leak detector equipment must be conducted-

(a) In Class 3 locations, at intervals not exceeding 7 1/2 months, but at least twice each calendar year;

Plains did not leak survey the Class 3 areas on the pipeline segment from west of Big Hand Road to east of Bauman Road twice a year from 2013 to 2015. Additionally, the Class 3 locations on the Kimball pipeline exceeded the 7½ month maximum interval twice between 2014 and 2016.

Review of the leak survey records found that on the Big Hand Road to Bauman Road, the Class 3 segment was leak surveyed once a year on June 5, 2013, June 13, 2014, and June 3, 2015. On the Kimball pipeline's Class 3 locations, the leak surveys exceeded the 7½ month interval on October 7, 2014 to June 16, 2015 (25 days over) and October 7, 2015 to June 6, 2016 (15 days over).

9. §192.736 Compressor stations: Gas detection.

(b) Except when shutdown of the system is necessary for maintenance under paragraph (c) of this section, each gas detection and alarm system required by this section must-

(2) If that concentration of gas is detected, warn persons about to enter the building and persons inside the building of the danger.

Plains did not install a device to warn personnel about to enter the Kimball compressor

building that a concentration of gas of not more than 25% of the lower explosive level was detected.

At the Kimball compressor station, the north side of the compressor building has three entry/exit doors, but there was no gas indicator light visible from that side of the building at the time of MIPSC's inspection. The Kimball Compressor Station was built in 2001. After the inspection, gas indicator lights were installed on the north side of the Kimball compressor building.

10. §192.745 Valve maintenance: Transmission lines.

(a) Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year.

Plains did not include the blowdown valves at the mainline valve settings in the annual valve inspection. Blow down valves might be required in the event of an emergency and should be included in the annual inspection.

Additionally, BVM-1 and BVM-2 valve inspections did not get partially or fully operated in 2013. The dates they were partially or fully operated was on July 18, 2012 and September 2, 2014.

11. §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(b) Data gathering and integration. To identify and evaluate the potential threats to a covered pipeline segment, an operator must gather and integrate existing data and information on the entire pipeline that could be relevant to the covered segment. In performing this data gathering and integration, an operator must follow the requirements in ASME/ANSI B31.8S, section 4. At a minimum, an operator must gather and evaluate the set of data specified in Appendix A to ASME/ANSI B31.8S, and consider both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline.

Plains did not consider past incident history as part of the data gathering and integration to identify and evaluate potential threats as part of risk ranking the line segment.

While reviewing the December 2015 Risk Analysis data, it was noted that the data point for Ray to Marysville line indicated that there were zero (0) third party damage (TPD) failures and

zero (0) Incorrect Operations failures. However, there was a rupture related to third party damage by a tiling contractor on this line in June 2014, and a subsequent rupture at the Vector Compressor Station due to incorrect operations also in June 2014.

12. §192.947 What records must an operator keep?

An operator must maintain, for the useful life of the pipeline, records that demonstrate compliance with the requirements of this subpart. At minimum, an operator must maintain the following records for review during an inspection.

(d) Documents to support any decision, analysis and process developed and used to implement and evaluate each element of the baseline assessment plan and integrity management program. Documents include those developed and used in support of any identification, calculation, amendment, modification, justification, deviation and determination made, and any action taken to implement and evaluate any of the program elements.

At the time of MIPSC's inspection, Plains was not documenting the analysis and process developed and used to implement and evaluate each element of the integrity management program. Specifically, Plains could not show any documentation for the following:

1) Plains could not show how they identify their high consequence areas (HCA). Plains could not provide HCA identification documentation, including sources of data, public official contacts, registry database info, personal contact interviews, etc. [see §192.905 and §192.911(a)]
2) Plains could not provide any potential impact radius (PIR) calculations for the identified HCA areas. [see §192.903 and §192.905]
3) Plains' Form F12-1 for the 20-inch Ray to Marysville Line did not include documentation for all P&M measures that must be considered, specifically, measures to address third party damage. [see §192.911(h) and §192.935]
4) Plains did not have documentation showing the performance measures as required in ASME B31.8S, Table 9. The Integrity Management Plan (IMP), section 17.4 requires this data to be maintained bi-annually, but no documentation could be provided for the history of the IMP. [see §192.911(i) and §192.945]

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $209,002 per violation per day the violation persists, up to a maximum of $2,090,022 for a related series of violations. For violations occurring prior to November 2, 2015, the maximum penalty may not exceed $200,000 per violation per day, with a maximum penalty not to exceed $2,000,000 for a related series of violations. The Compliance Officer has

reviewed the circumstances and supporting documentation involved in the above probable violation(s) and has recommended that you be preliminarily assessed a civil penalty of $109,400 as follows:

Item number	PENALTY
5	$12,900
8	$40,300
9	$24,400
11	$18,700
12	$13,100

Warning Items

With respect to item(s) one (1), two (2), three (3), four (4), six (6), seven (7), and 10, we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these item(s). Failure to do so may result in additional enforcement action.

Response to this Notice

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. All material you submit in response to this enforcement action may be 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.

In your correspondence on this matter, please refer to **CPF 3-2018-1006** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Allan C. Beshore
Director, Central Region, OPS
Pipeline and Hazardous Materials Safety Administration

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