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

820 Bear Tavern Road, Suite 103
West Trenton, NJ 08628
609.989.2171

NOTICE OF PROBABLE VIOLATION
and
PROPOSED COMPLIANCE ORDER

OVERNIGHT EXPRESS DELIVERY

August 14, 2014

Mr. H. Ford Stryker, Associate VP, Physical Plant
Penn State University
0200 Physical Plant Building
University Park, PA 16802

CPF 1-2014-0002

Dear Mr. Stryker:

On November 19-23, 2013, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your Master Meter System on the Penn State University (PSU) Campus located in University Park, PA.

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

1. §192.303 Compliance with specifications or standards.
Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

PSU did not have construction procedures that demonstrated it uses comprehensive written specifications or standards that are consistent with 49 CFR Part 192. PSU had no procedures that defined its requirements for performing construction activities on its gas piping system.

During the inspection, a PHMSA inspector asked the PSU Supervisor for Steam Distribution and Gas Systems (PSU Supervisor) to provide construction procedures to demonstrate compliance with section 192.303. The PSU Supervisor stated that PSU did not have written procedures for construction. The PSU Supervisor did, however, present several industry standards that PSU uses for reference. Nevertheless, PSU did not have procedures that instructed its personnel to use those industry standards for construction.

Therefore, PSU did not have construction procedures that demonstrated it uses comprehensive written specifications or standards that are consistent with 49 CFR Part 192. Furthermore, PSU had no procedures that included detailed instructions or information on performing construction activities on its own gas piping system.

2. §192.355 Customer meters and regulators: Protection from damage.
(a). . .
(b) Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must-
(2) Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building; and,

PSU failed to install regulators at a place where gas from the regulator vent can escape freely into the atmosphere and away from any opening into the building.

During the field inspections, the PHMSA inspector observed and took a photograph of regulator vents positioned near the heater intake vent at the South Frear Building and near the building ventilation system vent at the Poultry P3 Building. The PSU Supervisor stated that he was aware of this requirement but it got overlooked. He also stated that he would have his employees check all meters throughout the system for proper meter and regulator placement.

3. §192.465 External corrosion control: Monitoring.
(a) Each pipeline that is under cathodic protection must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of §192.463. However, if tests at those intervals are impractical for separately protected short sections of mains or transmission line, not in excess of 100 feet (30 meters), or separately protected service line, these pipelines may be surveyed on a sampling basis. At least 10 percent of these protected structures, distributed over the entire system must be surveyed each calendar year, with a different 10 percent checked each subsequent year, so that the entire system is tested in each 10-year period.

PSU failed to test each pipeline that is under cathodic protection at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of §192.463. Specifically, PSU failed to test each pipeline during the calendar year 2009, 2011 and 2012.

During the inspection, the PHMSA inspector requested procedures and records for external corrosion control monitoring. The PSU Supervisor provided procedures that require close interval surveys (CIS) be performed every three years on their gas system, and he also provided documentation for close interval surveys conducted by a PSU contractor from June 21-25, 2008 and from July 21-25, 2010. However, PSU did not provide any record that demonstrated it monitored external corrosion during the calendar years 2009, 2011 and 2012.

Therefore, PSU did not meet the requirements in section 192.465(a).

4. §192.465 External corrosion control: Monitoring.
(a) . . .
(d) Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring.

PSU failed to take prompt remedial action to correct the cathodic protection deficiencies identified by their corrosion consultant following a 2008 Close Interval Survey (CIS) survey of their piping system.

During the inspection, the PHMSA inspector requested procedures and records for external corrosion control monitoring. The PSU Supervisor provided documentation for close interval surveys that were conducted by a PSU contractor from June 21-25, 2008, and from July 21-25, 2010. The PHMSA inspector reviewed the reports provided by PSU.

1. The 2008 report indicated that
   a. There are "five areas showed pipe-to-soil potentials more negative than -0.850 V, which indicates that they are under cathodic protection."
   b. There are areas where pipe-to-soil potentials are generally in the range of -0.500V to -0.600V, indicating no cathodic protection and installation of dielectric insulators are recommended to correct the inadequacy.
   c. The survey results showed that six locations were deficient.

2. The 2010 report indicated the pipe-to-soil potentials that were generally in the range of -0.500V to -0.600V in the 2008 survey were unchanged and installation of six dielectric insulators was recommended again. Locations are Chemistry, Life Science, Forest Research, Ritenour, Pollock Commons, & Chase Hall.

As of 11/19/2013, dielectric insulators at the six locations with low cathodic protection potentials had not been installed and no other work had been performed by PSU to correct the cathodic protection deficiencies identified in the 2008 and 2010 surveys.

5. §192.603 General provisions.
(a) . . .
(b) Each operator shall keep records necessary to administer the procedures established under §192.605.

PSU failed to keep records under section 192.603 of the code to demonstrate that the procedure manual for operations, maintenance and emergencies was reviewed and updated at intervals not exceeding 15 months but at least once each calendar year.
During the inspection, the PHMSA inspector asked the PSU Supervisor to produce records to demonstrate that their procedure manual was reviewed each calendar year not to exceed 15 months. He stated that they did not have any documentation showing that the manuals were reviewed in accordance with section 192.605 requirements. He did identify some procedures in the manual, that based on the revision dates, had been updated recently. However, this does not demonstrate that contents of the manuals were reviewed in its entirety.

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.

PSU failed to follow its own manual of written procedures for conducting operations and maintenance activities.

PSU's procedure states that "Any Grade 2 leak not repaired within 6 months should be rechecked to assure that it has not become more hazardous." PSU failed to recheck the two Grade 2 Gas leaks below within 6 months of discovery.

1. Leak WA-12-BL-3 found on 6/19/2012 rechecked 10/18/2012 and repaired on 8/13/2013 (six month re-inspection interval exceed by 3 months, 26 days from 10/18/2012 recheck date)
2. Leak FXS-12-BV-1 Found on 7/31/2012 and repaired on 10/14/2013. (six month re-inspection interval exceeded by 8 months, 14 days) (See Exhibit B –Leak Records/Procedure)

7. §192.747 Valve maintenance: Distribution systems.

(a) Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year.

PSU failed to check and service each valve, the use of which may be necessary for the safe operation of a distribution system, at intervals not exceeding 15 months, but at least once each calendar year.

During the inspection, the PHMSA inspector asked the PSU Supervisor to produce procedures and records for inspection of emergency valves. The PSU Supervisor provided procedures for emergency valve inspections and valve inspection reports for inspections conducted in 2010 and 2011. The PHMSA inspector reviewed the reports and identified five valves below that were inspected at intervals exceeding 15 months.

1. Valve Poultry Building 7/20/2010 until 11/17/2011. – 15 months, 28 days
2. Valve Academic Activities 6/25/2010 until 11/30/2011. – 17 months, 5 days
3. Valve Fox Hollow South 6/10/10 until 11/17/11. – 17 months, 7 days
4. Valve Shields 7/22/2010 until 11/22/2011. – 16 months
5. Valve Walker 6/29/2010 until 11/22/2011. – 16 months, 24 days

Proposed Compliance Order

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed $200,000 per violation per day the violation persists up to a maximum of $2,000,000 for a related series of violations. For violations occurring prior to January 4, 2012, the maximum penalty may not exceed $100,000 per violation per day, with a maximum penalty not to exceed $1,000,000 for a related series of violations.

We have reviewed the circumstances and supporting documents involved in this case, and have decided not to propose a civil penalty assessment at this time.

With respect to items 1, 2, 3, 4 and 5 pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Penn State University. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Warning Items

With respect to items 6 and 7, 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). Be advised that failure to do so may result in Penn State University being subject to 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. 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.

Please submit all correspondence in this matter to Byron Coy, PE, Director, PHMSA Eastern Region, 820 Bear Tavern Road, Suite 103, W. Trenton, NJ 08628. Please refer to **CPF 1-2014-0002** on each document you submit and please, whenever possible, provide a signed PDF copy in electronic format. Smaller files may be emailed to Byron.Coy@dot.gov. Larger files should be sent on a CD accompanied by the original paper copy to the Eastern Region Office.

Sincerely,

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

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

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Penn State University a Compliance Order incorporating the following remedial requirements to ensure the compliance of Penn State University with the pipeline safety regulations:

1. In regard to Item Number 1 of the Notice pertaining to construction procedures, PSU must develop written procedures, consistent with the requirement/s in Part 192, for performing construction activities on the gas piping systems. The procedures must include reference to specific industry standards that are to be applied in this system. Procedures must be submitted within 120 days from date of Final Order.

2. In regard to Item Number 2 of the Notice pertaining to service regulators and relief vents, PSU must reevaluate the regulator vent placement at all locations throughout the gas piping system and correct all deficiencies identified, including the locations outlined in item 2 of this Notice. The evaluation, including all remediation, must be completed within 120 days from date of Final Order.

3. In regard to Item Number 3 of the Notice pertaining to External Corrosion Control Monitoring-Annual Testing, PSU must develop procedures to address the requirements of 192.465(a). The procedures must include:

   1. A methodology for determining locations for monitoring
   2. Guidance to personnel performing the monitoring
   3. Documentation requirements

   PSU must perform a survey on their gas piping system in accordance with the procedures developed. Procedures must be submitted to the PHSMA Eastern Region Director for review/approval within 90 days from date of Final Order. Survey work must be completed within 90 days following PHMSA's review/approval of the procedures.

4. In regard to Item Number 4 of the Notice pertaining to cathodic protection deficiencies requiring prompt remedial action, PSU must re-test and remediate (if necessary) all identified locations in this finding. All testing and remediation must be completed within 180 days from date of Final Order.

5. In regard to Item Number 5 of the Notice pertaining to the procedure manual review, PSU must review their procedure manual for operations, maintenance, and emergencies and create a record to demonstrate compliance. The review must be completed within 120 days from the date of Final Order.

6. It is requested (not mandated) that Penn State University maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Byron Coy, Director, Eastern Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.