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NRG Energy Center Harrisburg LLC
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March 7, 2016

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street, 2 North
P.O. Box 3265
Harrisburg, PA 17105-3265

RE: **Steam Heat Distribution System Safety Regulations**
Docket No. L-2015-249811

Comments of NRG Energy Center Harrisburg LLC and NRG Energy Center Pittsburgh LLC
to Proposed Rulemaking Order

Dear Secretary Chiavetta:

Enclosed for filing with the Commission, please find NRG Energy Center Harrisburg LLC and NRG Energy Center Pittsburgh LLC's Comments to the Proposed Rulemaking Order in the above-referenced docket.

If you have any questions regarding this filing, please direct them to me. Thank you for your attention to this matter.

Sincerely,

Keith L. Li
Vice President & General Manager
NRG Energy Center Harrisburg LLC

/kll

Enclosure

cc: Kenneth R. Stark, Assistant Counsel, Law Bureau

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Rulemaking Re Steam Heat Distribution System
Safety Regulations, 52 Pa. Code Chapters 61 and 67 PA PUC
SECRETARY'S BUREAU : Docket No. L-2015-2498111

**COMMENTS OF NRG ENERGY CENTER HARRISBURG LLC
AND NRG ENERGY CENTER PITTSBURGH LLC TO
PROPOSED RULEMAKING ORDER**

NRG Energy Center Harrisburg LLC (“NRGH”) and NRG Energy Center Pittsburgh LLC (“NRGP”) (collectively, the “NRG Companies”) file these comments in response to the Proposed Rulemaking of the Pennsylvania Public Utility Commission (“Commission”) regarding Steam Heat Distribution System Regulations, 52 Pa. Code Chapters 61 and 67, (“Proposed Steam Regulations”) at the above-referenced docket.

I. INTRODUCTION

NRGH is a certificated Pennsylvania public utility providing steam service in a one-square-mile area of the City of Harrisburg, Dauphin County, Pennsylvania pursuant to certificates of public convenience at Docket Nos. A-130175 *et seq.* NRGH serves Harrisburg’s central business district, which includes the following: the Capitol Complex; federal, state and municipal office buildings and court houses; commercial office buildings; a hospital complex; a museum; hotels; an educational institution; residential high- and low-rise buildings; churches; retail businesses; and, industrial facilities. NRGH generates and distributes steam for use in space heating, domestic hot water heating, humidification and industrial processes. It serves

approximately 140 downtown customers totaling 10 million square feet of space. NRGH is a Delaware limited liability company with its principal place of business at 900 Walnut Street, Harrisburg, Pennsylvania 17101.

NRGP is a certificated Pennsylvania public utility providing steam, hot water and chilled water service to the public in the 21st and 22nd wards in the City of Pittsburgh pursuant to certificates of public convenience at Docket Nos. A-130001 *et seq.* It has approximately 20 customers and services a total of approximately 6.3 million square feet of building space in approximately 35 different buildings. NRG is a Delaware limited liability company with its principal place of business at 111 South Commons, Pittsburgh, PA 15212.

The NRG Companies take very seriously their statutory obligations as regulated public utilities to: (i) "furnish and maintain adequate, efficient, safe, and reasonable service and facilities"; (ii) "make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public"; and, (iii) ensure that their service is "reasonably continuous and without unreasonable interruptions or delay." 66 Pa. C.S. § 1501 (regarding "Character of service and facilities"). Indeed, the NRG Companies have a stellar record with regard to steam safety and reliability.

By way of example, NRGH has not had, in the last approximately 30 years (since the system was owned by PPL), a major system interruption that caused buildings to close in cold weather. Likewise, NRGH has not had a customer complaint filed against it for numerous years and the complaints that were filed related to billing issues and not safety or reliability. Along similar lines, NRG has not had, in the last approximately 25 years, a major system interruption that caused buildings to close in cold weather or a customer complaint filed against it.

Aside from its legal obligations and existing Commission oversight, the NRG Companies have large institutional customers (including governmental entities, hospitals, and educational institutions) that demand the highest quality of service and upon which the continued financial viability of the NRG Companies depend. Unlike many other public utilities with larger customer bases, the NRG Companies operate in a very competitive environment where customers have readily-accessible alternatives for their steam heating and processing needs (namely on-site steam self-generation using natural gas). Thus, there is a clear economic incentive for investor-owned steam public utilities, such as the NRG Companies, to provide a heightened quality of service. In Harrisburg and Pittsburgh, the NRG Companies maintain very close relationships with customers and the community in general, which is different from large utility systems. We also provide specialized customer service on steam systems at a lower price than independent contractors.

While the NRG Companies do not necessarily agree that additional regulatory oversight is necessary (particularly in light of the absence of prior problems), they have worked cooperatively with the Commission's Gas Safety Division for the past several years on an informal basis to develop a workable set of regulations.¹ The goal of such cooperation was to develop reasonable regulations that balance the need for additional regulatory oversight against the risk of unnecessary administrative and operational burdens that could potentially jeopardize the continued financial viability of Pennsylvania's regulated steam public utilities.

¹ The NRG Companies note that the Proposed Steam Regulations would not apply to non-regulated steam operations within the Commonwealth, such as municipal and privately-owned systems. Such systems arguably pose a greater threat to the public safety than those of public utilities because of the dearth of regulatory oversight. The NRG Companies respectfully suggest that the Commission should address this gap in public safety oversight with the Pennsylvania Legislature.

The NRG Companies generally agree that the Proposed Steam Regulations strike an appropriate balance of competing interests, and acknowledge that they reflect -- with a few important exceptions discussed below -- the changes discussed by the NRG Companies with Commission Staff. The NRG Companies appreciate the opportunity to submit these comments and have limited them to the issues to which there was no concurrence with Commission Staff prior to issuance of the Proposed Steam Regulations. As public utilities with extensive experience and expertise in owning and operating safe and reliable steam systems, the NRG Companies respectfully request that these comments be afforded substantial weight and incorporated into the Commission's final regulations.

II. COMMENTS TO PROPOSED STEAM REGULATIONS

A. Section 61.48; Periodic Inspections

The NRG Companies acknowledge the importance of periodic inspection of steam traps and piping assemblies; however, three times per year is unnecessary in our expert opinion. The current practice of the NRG Companies is once per year. Thirty years of experience has demonstrated that this level of review results in safe operation of a steam distribution system. Similarly, inspection of expansion joints once per year is good industry practice. Increased inspections would place a burden on our limited, existing workforce. Furthermore, trap inspections require confined space entry and traffic control that introduces additional employee safety concerns and causes disruptions to public roads.

The NRG Companies endeavor to inspect traps more than once per year -- particularly where there are indications that a trap may have a problem. Nevertheless, we do not believe that a regulatory mandate for more than one inspection per year is appropriate. A mandatory

inspection requirement of three times per year would divert resources to areas where there are no indications of problems and away from areas that warrant more attention. It should also be noted that multiple inspections are conducted not necessarily for safety reasons but, instead, for efficiency reasons. When a trap fails, it typically fails in the open position which makes the system operate less efficiently but does not create a safety risk.

B. Section 61.50; Welding

The proposed regulation would require new construction pipe testing at 1.5 times operating pressure. The NRG Companies purchase pipe that comes with documented proof of pressure testing beyond the 1.5 times requirement. Attached as **Appendix A** is a sample Certified Test Report that shows a hydro test of 2970 psi which far exceeds our operating pressure of 100 psi. After installation, the NRG Companies do random testing of welds; this testing and the act of bringing the new pipe up to pressure will reveal any leaks. Moreover, it is unsafe to perform a hydro test in the field because, if water comes in contact with live steam, there is a potential for flashing steam and water hammer.

C. Section 61.51; Steam Leaks and Emergency Reports

The NRG Companies respectfully request that the provision to prepare a summary analysis of steam leak reports be changed from the 16th of each calendar month to the end of each month to better coincide with normal company reporting procedures. The additional time for the preparation of a summary analysis would also recognize the limited administrative support staff with which the NRG Companies must operate for economic reasons.

D. Section 61.52; Facility Failure Investigation

In the event of a steam line failure, the NRG Companies agree to include review by independent consultants; however, these consultants must meet the standard requirements imposed on all vendors who work in NRG facilities. These requirements include knowledge and experience with steam systems as well as vendor certification through the NRG “Adapt One” system, which requires vendors to meet certain safety and insurance standards.

E. Section 67.1; General Provisions

The NRG Companies request that the 5% of all customers notification limit be modified to 10% of all customers when the utility's total customer count is under 50 customers (as is currently the case with NRG). If a system has only 20 customers, the 5% rule is one customer, and it would be an unnecessary burden, particularly where the company has limited administrative support staff, to report every unscheduled interruption for a single customer.

III. CONCLUSION

The NRG Companies appreciate the opportunity to submit these comments to the Proposed Steam Regulations and thank the Commission's Gas Safety Division for its cooperation in development of these proposals. While generally acceptable, the Proposed Steam Regulations can be improved by adopting these comments and, thereby, striking an appropriate balance between regulatory oversight and undue economic burden on small companies that are already operating in a very competitive environment. Attached hereto as **Appendix B** please find suggested language revisions (underlined and bolded) to the Proposed Steam Regulations which would address the issues raised in these comments.

Respectfully submitted,



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Dated: March 7, 2016

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NRG Pote 4501630928

 UNITED STATES STEEL CORPORATION			TUBULAR PRODUCTS CERTIFIED TEST REPORT (IN ACCORDANCE WITH ISO 10474/EN10204/DIN50049 "type 3.1")										DATE: 03/13/15 TIME: 04:16:38 SERIAL NO: F0096415 EBS NO: 2001032064 1				
MILL ORDER ITEM NO DR92491 01	SHIPPER'S NO.	P.O. NUMBER 600600008	VEHICLE ID					MAIL TO ADDRESS					VENDOR				
SOLD TO ADDRESS Yeager Supply, Inc. 131 West Airport Road Liltz, Pennsylvania 17543 1-800-222-1967													UNITED STATES STEEL CORP FAIRFIELD TUBULAR OPERATIONS 5700 VALLEY ROAD P. O. BOX 599 FAIRFIELD, AL 35064				
Fax 717-560-1000 SPECIFICATION AND GRADE SMLS STANDARD AND LINE PIPE API 5L 45TH EDITION DATED 12/1/12 GRADE B/X42 R N OR Q PSL-2, ASTM A106-14 GRADE B, ASTM A53-12 GRADE B, ASME SA106-2013 GRADE B, ASME SA53-2013 GRADE B REG MILL COAT PR BEV 30 DEGREE APPLICABLE REQUIREMENTS OF NACE MR0103-2012 ED AND NACE MR0175/ISO 15156-2 2009 ED																	
SECRETARY PA 15 5																	
MATERIAL COND: AS-ROLLED						OD: 6.625 (168.275)						IN (mm) WALL: 0.432 (10.972)					
PRODUCT IDENTIFICATION	TEST TYPE/ ORIENTATION	TEST COND.	GAUGE WIDTH IN	YIELD PSI		EXT % .50		TENSILE PSI		YT		ELONG % (IN 2")		HARDNESS		MIN HYDRO PSI	
				MIN:	42,100	MIN:	60,200	MAX:	71,800	MAX:	95,000	MIN:	29.0	MAX:	40.5	MIN:	2970
C04832	STRIP/L/B	AR	1.5	50,500	.50	77,500	0.65										
LEGEND: L - LONGITUDINAL U - UPSET T - TRANSVERSE NM - NORMALIZED QT - QUENCH & TEMPERED SR - STRESS RELIEVED AR - AS-ROLLED TR - THERMOMECHANICAL ROLLED B - BODY W - WELD																	
PRODUCT IDENTIFICATION	TYPE	C MN P S SI CU H CR MO AL N V B T CB CO CE MAX .43															
		:20	:108	:011	:004	:22	:02	:01	:05	:01	:031	:00	:0003	:002	:001	:000	:000
C04832	HEAT PROD	:20	:106	:010	:004	:24	:02	:01	:06	:01	:026	:00	:0002	:001	:000	:000	:000
C04832	PROD	:20	:108	:010	:005	:24	:02	:01	:06	:01	:027	:00	:0002	:001	:000	:000	:000
*C.E. IS BASED ON THE FOLLOWING EQUATION(S): $C + MN / 6 + CR / 5 + MO / 5 + V / 5 + NI / 15 + CU / 15 \quad (\text{EUROPEAN CEV})$																	

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT. ELEMENTS REPORTED IN MASS FRACTION (%)

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UNITED STATES STEEL CORPORATION

TUBULAR PRODUCTS

CERTIFIED TEST REPORT

(IN ACCORDANCE WITH ISO 10474/EN10204/DIN50048 "type 3.1")

DATE: 03/13/15

TIME: 04:16:38

SERIAL NO: P0096415

EBS NO: 2001032064 1

MILL ORDER ITEM NO DR92491_01	SHIPPER'S NO. 600600008		P.O. NUMBER																
MATERIAL COND: AS-ROLLED					O.D. 6.625 (168.275)	In (inch)	WALL: 0.432 (10.972)	In (mm)											
PRODUCT IDENTIFICATION C04832	FLAT OK	BEND	GRAIN SIZE **	MIN COLLAPSE END OF DATA THIS SHEET **	CHARPY V-NOTCH IMPACT TESTING														
					ODR	TEST LOC.	TEMP	SIZE	TEST COND.	F1/F2	% SHEAR								
					DEG F	12	12	12	15	1	2	3	Avg						
					T	B	+ 32	3/4	AR	26	23	23	24	0	0	0	0		
					HAZ - HEAT AFFECTED ZONE														
LEGEND	L - LONGITUDINAL	T - TRANSVERSE	S - BODY	W - WELD															
TEST / INSPECTION					YES	RESULTS / COMMENTS													
FULL LENGTH VISUAL						X													
FULL LENGTH EMI						X	OD	OD/D	X	L	UT	X	10.0/10.0% NOTCH						
FULL LENGTH MPI																			
FULL LENGTH UT							ID	OD/D		L	UT								
END AREA INSPECTION (PLAIN END)						X	MPI	X	UT										
SPECIAL END AREA (SEA) INSP							MPI	UT											
FULL LENGTH DRIFT							DRIFT MANDREL SIZE:												
ADDITIONAL NOTES/COMMENTS																			
ALL MELTING AND MANUFACTURING TOOK PLACE IN THE USA.																			
MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY - CERTIFICATE #30727.																			
NO REPAIRS BY WELDING. NO MERCURY OR MERCURY COMPOUNDS ARE ADDED TO THE STEEL AND ALL MERCURY																			
** END OF DATA **																			

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED,
SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION
AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J. MAJKRZAK - MANAGER, Q.A.

DATE 03/13/15

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APPENDIX B

PROPOSED CHANGES OF THE NRG COMPANIES TO ANNEX A OF THE PROPOSED STEAM REGULATIONS

§ 61.48. Periodic inspections.

- (a) Steam traps and trap piping assemblies shall be inspected for general condition and proper operation at least once each calendar year.
- (b) Blow-off valves shall be checked for operability immediately prior to closing each associated main valve during a scheduled shutdown of a section of the steam distribution pipeline system. Removal of condensate from a shutdown section of pipeline must be accomplished prior to reopening main valves.
- (c) Accessible expansion joints shall be inspected at least once annually. The inspection shall include checks for leakage, proper alignment and traverse measurement.
- (d) Service valves owned by the utility located within the customer's building shall be inspected at least once annually.
- (e) Manholes owned by the utility containing steam facilities shall be inspected for general conditions and adequacy of insulation at least once annually.
- (f) Remote system pressure indicating devices shall be inspected and tested for accuracy at least once every 2 years. At a minimum, pressure indicating gauges shall be installed at the interface between portions of the system which are designed for different operating pressures.

§ 61.50. Welding – qualification and nondestructive testing.

- (a) Welding shall be performed by qualified welders employing qualified welding procedures. Welders and welding procedures shall be qualified in accordance with the most updated and applicable standards of the American Society of Mechanical Engineers, <https://www.asme.org/>, Two Park Avenue, New York, NY 10016-5990.
- (b) Field welds that are inaccessible or not in a manhole on new steam pipelines shall be nondestructively tested. The new pipeline shall be tested at system pressure.
- (c) New construction pipelines shall be pressure tested at system operating pressure.
- (d) Field welds made on existing steam pipeline facilities shall be subject to a program of random unannounced nondestructive testing to assess the quality of welding and test the work of each welder. The required minimum testing rate shall be 10% of all welds made during a calendar year. If 10% or more of the welds tested in a calendar year are found to be unacceptable, the test rate shall increase by five percent for the ensuing calendar year. If fewer than 10% of the welds are found to be unacceptable in a year where the required test rate was greater than 10%, the test rate may be decreased by 5% for the ensuing calendar year.

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§ 61.51. Steam leaks and steam emergency reports.

(a) Emergency leaks require an immediate response to protect life and property and shall be worked continuously until repairs are completed or until the condition is no longer hazardous. An emergency leak includes any leak which could cause property damage or personal injury or any leak which, in the judgment of the operating personnel at the scene, is regarded as potentially hazardous.

(b) Nonemergency leaks include any leak which is not immediately hazardous at the time of discovery and can be reasonably expected to remain that way. Nonemergency leaks shall be reexamined within 6 months from the date of discovery, and repaired within a reasonable time.

(c) A steam leak record, identified by number, shall be used to depict the entire history of a leak from the time of discovery through repair. The record must contain information as to the nature of the repair.

(d) A steam utility shall record data and compile a written report of each steam leak and steam emergency leak, as defined in subsection (a).

(e) An event log shall be kept and maintained on file recording the receipt and handling of each event and must contain all of the following information:

- (1) The location of leak or emergency.
- (2) The time the report is first received.
- (3) A description as to type of leak or emergency.
- (4) The time personnel are first dispatched to the location.
- (5) The time of arrival of personnel at the location.
- (6) The times of dispatch and arrival of any additional personnel called to the location.

(f) A steam utility shall have available for inspection by the Commission's Gas Safety Division, on or before the last day of each calendar month, a summary analysis of its performance in responding to reports of steam leaks and emergencies.

§ 61.52. Facility failure investigation.

(a) A steam utility shall establish procedures to analyze each failure that causes injury or damage for the purpose of determining its cause and to minimize the possibility of recurrence. The procedures must include a method to select samples of the failed facility or equipment for laboratory examination when necessary.

(b) The procedures shall provide for complete cooperation with Commission staff, including using steam utility-approved independent consultants, in testing or surveying equipment or systems deemed necessary by staff or the consultants for the investigation and analysis of a failure or accident to determine its cause and to minimize the possibility of recurrence.

(c) A facility failure occurs when the facility fails to perform the function it was designed for.

§ 67.1. General provisions.

(a) Electric, gas, water, steam, and telephone utilities holding certificates of public convenience under 66 Pa.C.S. §§ 1101 and 1102 (relating to organization of public utilities; and beginning of service and enumeration of acts requiring certificate) shall adopt the following steps to notify the Commission with regard to unscheduled service interruptions.

(b) All electric, gas, water, steam, and telephone utilities shall notify the Commission when 2,500 or 5.0%, whichever is less of their total customers have an unscheduled service interruption in a single event for 6 or more projected consecutive hours; provided however that steam utilities with fewer than 50 customers shall provide such notice when 10.0% of total customers experience such an interruption. A service outage report shall be filed with the Commission within 10 working days after the total restoration of service. Where storm conditions cause multiple reportable interruptions as defined by this section, a single composite service outage report shall be filed for the event. Each report must contain the following information:

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