

April 11, 2016

BY HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 4590 - Proposed FY 2017 Gas Infrastructure, Safety, and Reliability Plan
Response to Post-Hearing Data Request – Set 2**

Dear Ms. Massaro:

On behalf of National Grid,¹ I have enclosed ten (10) copies of the Company's response to the second Post-Hearing Data Request issued by the Public Utilities Commission in the above-referenced docket.

Thank you for your attention to this transmittal. If you have any questions, please contact me at 401-784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4590 Service List
Leo Wold, Esq.
Steve Scialabba, Division

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

Joanne M. Scanlon

April 11, 2016

Date

Docket No. 4590 - National Grid's FY 2017 Gas Infrastructure, Safety and Reliability (ISR) Plan - Service List 11/27/15

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COMM 2-1

Request:

Please provide a detailed description of the pipeline(s) under the Providence River that supply natural gas at a high pressure to the Providence area and that were discussed in length at National Grid's ISR hearing on February 11, 2016. Include in that description, the number of pipes, the size of the pipes, the age of the pipes, the date of the last inspection of those pipes, the results of the last inspection, whether or not there have been any incidences with those pipes resulting in any of them having to be taken out of service, and all other pertinent information regarding the pipes.

Response:

The pipelines under the Providence River include three (3) - 10" Coated Steel 200 PSI Pipelines, which are the main feed to Providence and surrounding areas. The pipelines extend from a vault, with a header common to the three lines, located in the east bank of the Providence River off Riverside Drive in East Providence, Rhode Island to a vault, with a common header, located in the west bank of the Providence River rear of the National Grid property at 642 Allen Avenue, Providence, Rhode Island (refer to the table below for additional pipeline details).

Cathodic protection, isolation valves and exposed piping associated with the pipeline crossings are inspected on an annual basis. The date of last inspection of the isolation valves and exposed piping was 05/20/2015. The date of the last inspection of the cathodic protection test stations was 09/24/2015.

On July 5, 2015, a corrosion leak was reported on the 3" purge riser located on North pipeline on the west bank of the Providence River, outside the vault rear of the National Grid property located at 642 Allen Avenue, Providence. A temporary repair was performed the same day, and as a result the pressure was lowered to 150 PSI, until a permanent repair could be performed. The permanent repair was completed on November 2, 2015.

As a proactive approach, the Company will be replacing the risers on the three (3) pipelines this year in order to mitigate any future leaks.

In addition, the three (3) pipelines were individually isolated and subject to comprehensive inspection and testing in September 1995. The inspection and testing consisted of the following:

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1. Pipeline cleaning pig: The cleaning pig removes any dust, debris or liquid from the pipelines.
2. Gauge pig inspection: The purpose of this inspection is to determine if reductions in pipe diameter exist that will prevent the run of the caliper and bend radius tool.
3. Caliper and bend radius tool inspection: The purpose of this inspection is to determine geometrical condition of the pipelines (ex. degree of bend, pipeline radius variation).
4. Vetcolog corrosion detection tool inspection: The purpose of this inspection is to detect Wall loss.
5. Internal camera inspection: The inspection was performed to further inspect indication on center line.
6. Hydrostatic testing: The pipelines were pressure tested to validate pipeline strength (Refer to Appendix A for pressure test details).

During the course of this inspection the Vetcolog tool inspection identified a non-corrosion related indication in the center line, 800 feet from the west side. An indication is something that shows up during an inspection that requires further analysis. In order to further assess this particular indication, a camera inspection was performed to visually inspect the indication.

Based on the visual inspection, it was determined that the indication was a mill defect that had been present since the time of installation and was subsequently pressure tested. Based on this testing it was determined that the indication was stable and the pipeline was fit for service. No significant indications were found on the North and South lines.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 4590
FY2017 Proposed Gas ISR Plan
Responses to the Second Set of Post-Hearing Data Requests
Issued on March 17, 2016

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APPENDIX A

PIPE DETAILS	INSTALL YEAR	MATERIAL	SIZE (inches)	LENGTH (feet)	WALL THICKNESS (inches)	PRESSURE TEST (PSI)	OPERATING PRESSURE (PSI)	MAOP	*% SMYS
Providence River Crossing - North Line	1953	Coated Steel	10	2568	0.50	310	200	200	9
Providence River Crossing - Center line	1953	Coated Steel	10	2549	0.50	1174	200	200	9
Providence River Crossing - South Line	1953	Coated Steel	10	2543	0.50	1174	200	200	9

*The tensile strength specification for the three pipelines is unknown. Appendix B to 49 CFR Part 192, Paragraph D, Qualification of Pipe, requires an operator to use a tensile strength of 24,000 PSI or less for pipe of unknown tensile strength. These pipelines operate at a stress level of less than 20% and are classified as distribution piping by PHMSA.