

Dominion Energy North Carolina
800 Gaston Road, PO Box 1398
Gastonia, NC 28053
DominionEnergyNC.com



April 26, 2024

Ms. Shonta Dunston
Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4325

Re: Docket No. G-100, Sub 92

Dear Ms. Dunston:

Pursuant to the Commission's Order dated October 31, 2012, in the above referenced docket, enclosed are pipeline construction specifications for the following projects:

<u>Ref No.</u>	<u>Description</u>
1020	M-348 Relocation at Eli Lilly, Concord, NC (See attached As-Built G2 and G3)

If you have any questions or comments regarding this filing, please do not hesitate to call me. Thank you for your assistance in this matter.

Sincerely,

Electronically submitted
/s/ Glory J Creel
Rates & Regulatory
glory.creel@dominionenergy.com

OFFICIAL COPY

Apr 26 2024

PIPELINE DESIGN DATA

North Carolina Utilities Commission Form G-2

Company: Public Service Company of North Carolina, Inc. PSNC Project Number: P75244

Date Prepared: 26-Apr-24 Year Installed: 2024

Location of Line: M-348 Relocation at Eli Lilly, Concord, NC (As-Built) Map Reference Number: 1020

Length: 450 feet of 6 inch steel main

Estimated Date of Starting Construction: 22-Jan-24

Estimated Date Line Will Go Into Operation: 29-Mar-24

Contractors

Coating: Consolidated Pipe and Supply Co. Inc.

Pipeline: B&G Pipeline

Testing: Hydrostatic Testing - Pipeline Contractor
Non-destructive Weld Testing - Mistras

Pipeline Specifications

Specification of pipe: API 5L PSL Minimum specified yield (S): 52,000 psi

Grade of pipe: X52 PSL 2

Nominal outside diameter of pipe (D): 6.625 inches

Nominal wall thickness (t): 0.188 inches

Longitudinal joint: ERW Joint factor (E): 1

Gas temperature: 58 degrees F Temperature factor (T): 1

Actual class location: 3

Design class location: 3 Design factor (F): 0.5

Type coating applied: Fusion Bonded Epoxy

Type of cathodic protection: Existing Recifier

Minimum Valve Specifications

Manufacturer:	Model:	Type:	Material:	Size:	ASA:	Mfg's. Test Pressure:	Design Pressure:
						psi	psi
						psi	psi
						psi	psi
Manufacturer:	Model:	Type:	Material:	Size:	ASA:	Design Pressure:	
TD Williamson Tee TDW 3-Way Spherical CL 300D			Steel	6"	ANSI 300	550	
TD Williamson Tee TDW Split 300D			Steel	4"	ANSI 300	727	
TD Williamson T.O.R.			Steel	2"	N/A	3600 psi	
						psi	
						psi	

Hydrostatic Field Test

Medium: Water Test Period: 4 hours Test Pressure: 2067 psi

Pipe Design

1. Steel Pipe Design Pressure:

$$P = \frac{2St}{D} * F * E * T =$$

1476 psi

Mill Test Pressure:

2210 psi

2. Design Pressure of weakest component: main, fittings, valves, or other accessories:

550 psi

3. Test Pressure divided by the appropriate factor for the class location included:

1378 psi

4. For Furnace Butt Welded steel pipe, a pressure equal to 60 percent of the Mill Test Pressure:

N/A

5. For other than Furnace Butt Welded pipe. A pressure equal to 85 percent of the highest test pressure to which the pipe has been subjected, either Mill or Field Test:

1879 psi

6. The highest actual operating pressure to which the line was subjected during the five years preceding July 1, 1970:

N/A

7a. The pressure determined to be the maximum safe pressure after considering the physical history of the line:

250 psi

8. Maximum Allowable Operating Pressure considering 1 through 7:

250 psi

$$9. \text{Hoop Stress (HP)} = \frac{\text{Max. Allowable Operating Pressure} \times \text{O.D.}}{2t} = 4,404 \text{ psi}$$

$$10. \text{Percent Specified Minimum Yield Strength (SMYS)} = \frac{\text{HS}}{\text{S}} \times 100 = 8.47\%$$

Actual Operating Conditions

Maximum Actual Operating Pressure: 150 psi

$$\text{Hoop Stress (HS)} = \frac{\text{Max. Actual Operating Pressure} \times \text{O.D.}}{2t} = 2,642 \text{ psi}$$

$$\text{Percent Specified Minimum Yield Strength (SMYS)} = \frac{\text{HS}}{\text{S}} \times 100 = 5.08\%$$

Remarks:

Revised to reflect changes to the length, contractors, fitting specs, and test pressure.

Additional Description**Purpose of Work:**

Relocation due new entrance to Eli Lilly

Map Location:

500	42	6	-
City	Key	Sheet	Grid

Line Number:

0	M-348
T-line	M-line

Nearest Intersection:
(Or Other Location)

Concord Pkwy S & Concord Commons PI SW

NORTH CAROLINA UTILITIES COMMISSION
GAS PIPELINE CERTIFICATION – FORM G-3

OFFICIAL COPY

Apr 26 2024

I, **Brandon C. Aycock, Manager – Engineering Projects**, of Public Service Company North Carolina, Inc. d/b/a Dominion Energy North Carolina, located at 800 Gaston Rd, Gastonia, NC 28056, do hereby certify that the pipeline segment as defined in the table below has been constructed and tested in accordance with the standards and specifications prescribed in North Carolina's Public Utilities Laws and Regulations.

PIPELINE DATA

Pipeline Name		
Pipeline Segment NCUC Map Reference Number		
Pipeline Segment Project Number		
Pipeline Segment Name		
Location		
NCUC Form G-2 Filing Date		
Pipeline Segment In-Service Date		
Pipeline Segment Maximum Allowable Operating Pressure (MAOP)		
Percent Specified Minimum Yield Strength (SMYS) @ MAOP		
Maximum Actual Operating Pressure (MOP)		
Pipeline Segment Percent SMYS @ MOP:		
Operating and Maintenance Service Designation		

The aforementioned pipeline segment will not be subjected to a pressure in excess of the stated Pipeline Segment Maximum Allowable Operating Pressure (MAOP).

This the _____ day of _____

Signature 