

FILE

**RESPONSE TO OPSB STAFF DATA REQUESTS
NRG Ohio Pipeline Company LLC**

**Case No. 14-1717-GA-BLN
Set #1 – Received February 27, 2015
Response – March 4, 2015**

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- 1) Regarding the additional archaeological survey results submitted in December 2014 (Addendum I – dated December 2014), has the Applicant received any correspondence from the State of Ohio Historic Preservation Office? If not, are any comments expected in the near future?

No, we have not yet received any correspondence from the Ohio Historic Preservation Office. We reached out to the OHPO on February 5, 2015 to inquire whether they had started reviewing our report amendment. The OHPO said they were backlogged and were just getting to reports submitted in November. Upon further discussion with the OHPO on March 4, 2015 and given that we submitted our amendment in late December, the OHPO identified that we should expect to receive a response this month. We do not expect a conclusion back from the OHPO that differs from their prior findings.

- 2) How close is the proposed centerline to residences located in the housing development immediately west of the Mile Post 12 area and also at the Chestnut Ridge Road crossing?

See Attachment 1 showing the distances measured from the nearest corner of the residences to the current centerline of the pipe. The distances range from 29.30 feet to 150.44 feet.

- 3) Please provide the Specified Minimum Yield Strength for the pipeline in the Carriage Court area.

For X-60 pipe the Specified Minimum Yield Strength is 60,000 PSI. (See Response to No. 4 below)

- 4) Due to the proximity of the pipeline to houses near the Mile Post 12 area, has the applicant considered taking additional appropriate measures to ensure safety of the homeowners? If so, what is proposed?

Yes, while the X-52 24" X 0.312" wall thickness pipe proposed by NRG Ohio Pipeline for the entire length of the pipeline meets the required standards, to address the OPSB's concerns, NRG is planning to use X-60 24" X 0.500" pipe in this area. Using the X-60 - 0.500" wall pipe the percent SMYS will be 27% at 676 psig and 22% at 539 psig MAOP versus 40% for X-52 24" X 0.312" pipe.

- 5) In designing the pipeline in accordance with 49 CFR 192.105, please provide the calculation of the design pressure in pounds per square inch, including the yield strength, nominal outside diameter of the pipe, nominal wall thickness of the pipe, design factor, longitudinal joint factor and temperature derating factor.

See Attachment 2 -- Max Allowable Design Pressure Calculation

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NRG Ohio Pipeline Company LLC
Case No. 14-1717-GA-BLN
Distances from closest corner of residence to centerline of pipeline
Does not include porches or sheds

<u>Pipeline Stationing Number</u>	<u>Distance</u>	<u>Location</u>
608+50	121.00'	Stillwater Blvd. to 620+00
609+25	119.40'	
610+00	118.83'	
610+75	103.30'	
611+50	120.00'	
612+60	123.08'	
613+20	119.74'	
613+90	97.02'	
614+60	104.75'	
615+50	100.99'	
616+10	102.22'	
616+90	104.17'	
618+20	39.68'	
620+00	29.30'	
624+00	49.97'	Arrow Court to 632+00
625+00	54.92'	
625+70	51.71'	
626+20	54.90'	
627+00	51.35'	
627+50	51.94'	
628+30	51.74'	
628+75	51.61'	
629+50	51.23'	
629+70	50.63'	
630+70	64.64'	
631+00	104.78'	
631+50	148.06'	
632+00	150.44'	
634+50	107.33'	Chestnut Ridge Road
636+20	68.84'	South of Chestnut Ridge Road
636+70	71.72'	South of Chestnut Ridge Road
637+60	62.81'	South of Chestnut Ridge Road

NRG Ohio Pipeline Company LLC**Avon Lake Pipeline Maximum Allowable Design Pressure Calculation**Design Formula Per 49 CFR 192.105:

$$P = \frac{2 \cdot S \cdot t}{D} \cdot F \cdot E \cdot T$$

P = Maximum Allowable Design Pressure per 49 CFR 192.105 (psig)

S = Yield strength (psi)

t = Nominal wall thickness of pipe (in)

D = Nominal outside diameter of pipe (in)

F = Design factor per 49 CFR 192.111

E = Longitudinal joint factor per 49 CFR 192.113

T = Temperature derating factor per 49 CFR 192.115

Maximum Allowable Design Pressure Per Above Formula

Pipeline specification for the weakest section of pipeline utilized on the Avon Lake Project will be utilized for this calculation. Please note that there are sections of pipeline that will exceed this specification.

S = 52,000 psi

t = 0.312 inches

D = 24 inches

F = 0.5

E = 1

T = 1

$$P = \frac{2 \cdot 52,000 \text{ psi} \cdot 0.312 \text{ inches}}{24 \text{ inches}} \cdot 0.5 \cdot 1 \cdot 1 = 676 \text{ psig}$$

Maximum Allowable Design Pressure Per 49 CFR 192.105 = 676 psig