BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

In the Matter of:

Application of Renewco-Meadow Branch, LLC	)	
for a Special Permit to Install Glass Reinforced	)	Docket No. 10-00195
Epoxy (GRE) Thermoset Pipe	)	

Response to Staff's First Data Request

Applicant, Renewco-Meadow Branch, LLC, through its counsel, provides the following answers in response to the data request issued by the Authority:

1. According to the ASTM 2996 Designation, the design of the GRE pipe is based on static pressure conditions. Does the operation of the compressor station reflect static pressure conditions?

ANSWER: The compressor is intended to operate consistently with occasional shut downs occurring for compressor/equipment maintenance or other emergency downtime. The operating conditions will not be cyclic in nature and the static qualification of the product is suitable for this application.

2. Will construction of the line include bends? If so, please provide information on bends such as material, short term burst pressure and method of connection to pipe if different from method/configuration for connecting pipe to pipe.

ANSWER: There will be no bends that exceed the minimum allowable bend radius of the LinePIpe. Any severe changes in direction will be accomplished using steel fittings. The fittings will consist of a standard weld-end elbow that is then welded to the Fiberspar transition fitting (welded connection between the fitting and the connector) in accordance with SubPart E – Welding of Steel in Pipelines of the Minimum Federal Safety Standards. The fittings will be strength-tested along with the rest of the pipeline and installed in accordance with all cathodic protection standards. For all other field bends, the flexible nature of the LinePipe will allow it to follow the natural contours of the terrain and right of way.

3. Will the design and installation (bedding and envelope) of the pipe include consideration of external loads along the alignment?

ANSWER: Yes, the company's Construction & Maintenance Manual provides guidance on installation practices and require consideration be given to anticipated external loads during construction. Typically, external loading risks can be mitigated through the use of depth or backfill design. Unique circumstances will be addressed through detailed engineering.

4. Has the transmission main alignment been evaluated with respect to class location and, if so, what is the highest classification along the alignment?

ANSWER: Yes, a class location review was performed. The approximate linear footage in each respective class is as follows:

a. CLASS 1 – 26,000 feet
b. CLASS 2- 12,500 feet
c. CLASS 3- 9,500 feet

Class 3 represents the highest Class Location along the alignment.

5. Are couplings, bends, end pieces, etc. designed, manufactured and installed to prevent diffusion of the gas into the fiberglass reinforcing?

ANSWER: Yes, the connectors and fittings are designed to seal on the inner thermoplastic liner of the product. This seal ensures that the conveyed fluid never comes in contact with the fiberglass reinforcement.

6. What qualification and quality tests are conducted for pipe and fitting connectors?

ANSWER: The pipe and fittings are qualified to API 15S and API 15HR. As part of these qualifications, long term regression testing is conducted per ASTM D2992.

Lot quality control testing includes a full hydro test to 1.5x MAOP for a minimum of 1 hour flat line on every foot of pipe from the manufacturing run. Every spool is filled with water and tested in this manner. In addition, destructive testing is completed on burst samples, compression samples, and resin samples from the lead, tail, and random sections from the manufacturing lot.

7. What will be the maximum temperature of the input gas?

ANSWER: Discharge temperatures should not exceed 120 degrees F. Discharge temperatures will be below the pipe's maximum operating temperature of 140 degrees F. Flowing gas temperatures change abruptly to near in-situ ground temperatures once the pipe goes below-ground. Renewco intends to install steel pipe for several hundred feet downstream of the outlet of the plant and to a point best suited for the initial pull of the Fiberspar pipe. This plan will ensure even lower gas temperatures in the Fiberspar pipe.

8. What is specifically intended to be waived relative to 49 CFR Part 192.123 and 49 CFR Part 192.619(a)?

ANSWER: Specifically, Renewco-MB requests a waiver for the following:

- 49 CFR Part 192.123 – while this section does not specifically identify glass reinforced epoxy (GRE) thermoset (Fiberspar) line pipe, it appears that operating pressures on plastic pipe is restricted to 100 psig unless paragraphs (e) and (f) are met which allows up to 125 psig if the plastic is a thermoplastic material of PE2406 or PE3408 as specified within ASTM D2513 and manufactured after July 14, 2004 or up to 200 psig if the plastic is Polyamide-11 pipe produced after January 23, 2009. Since it is requested to operate the proposed GRE thermoset pipe at 700 psig, it is requested that a waiver be granted for this section.

- 49 CFR Part 192.619(a) – This section indicates that no person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following: (1) The design pressure of the weakest element in the segment, determined in accordance with Subparts C (Pipe Design) and D (Design of Pipeline Components) of this part. Since Subpart C does not currently incorporate by reference standards for using GRE thermoset pipe, it is requested that a waiver be granted for this requirement of Part 192.619(a).

9. Concerning the Alberta Energy samples that were reportedly the same after two years in service, how similar were the results to new Fiberspar pipe and which ASTM tests were used in the comparison?

ANSWER: All samples harvested for the Alberta Energy Board were tested in the same manner as quality control samples from the same lot. Burst tests were conducted per ASTM D1599. The results from all harvested samples were above factory lot acceptance minimums. It was as if the pipe never left the factory.

10. What is the status of application to PHMSA with regard to the revision of §192.121?

ANSWER: The petition has been submitted to PHMSA and is currently under consideration. Fiberspar has over five years in service under special permit from PHMSA in a gas application <750psi. PHMSA has recently granted a new special permit for a gas application operating at higher pressures, <1,340psi. Data and history generated from these special permit applications will help move the propose changes forward. A requested "Special Permit" pertaining to section 192.121 to allow for the use of an HDB through ASTM D2992 testing and for a change to section 192.7 to reference the most recent version of ASTM D2517, was approved in the recent petition to PHMSA. PHMSA will be requested to approve a similar request in conjunction with this petition.

11. What specification is being used for evaluation of reinforced epoxy resin fittings for this application?

ANSWER: The Fiberspar LinePipe system does not use any reinforced epoxy resin fittings. Proprietary mechanical end connections are tested and qualified per API 15HR and API 15S.

12. The operator is proposing more stringent leak survey requirements. What are these more stringent requirements?

ANSWER: In accordance with Part 192.706, a leak survey for an un-odorized transmission line must be conducted every 7 ½ months, but at least twice each calendar year for Class 3 locations. We intend to leak survey the Class 1 & 2 locations under the same requirements as mandated for a Class 3 location, ensuring the performance of a gas leak survey of the total pipeline twice each year.

Respectfully submitted this 12th day of November, 2010.

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