U.S. DEPARTMENT OF TRANSPORTATION PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION SPECIAL PERMIT – Usage of Composite Pipe

Special Permit Information:

Docket Number:	PHMSA-2022-0167
Requested By:	East Tennessee Natural Gas Transmission, LLC
Operator ID#:	4070
Original Date Requested:	December 2, 2022
Original Issuance Date:	March 31, 2023
Effective Dates:	March 31, 2023 to March 31, 2033
Code Section(s):	49 CFR 192.53(c), 192.121, 192.144, 192.149, 192.150,
	192.619(a), 192.624, 192.710, and 192.714 (effective May 24,
	2023)

Grant of Special Permit:

By this order, subject to the terms and conditions set forth below, the Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS)¹ grants this special permit to East Tennessee Natural Gas Transmission, LLC (ETNG)² for a *special permit segment* totaling approximately 0.64 miles of 8.625-inch diameter gas transmission pipeline on Line 3320A-100 located in Roanoke County, Virginia to allow for insertion of a 7.6-inch diameter composite pipe and components. This special permit is for use of non-steel (composite) pipe in a gas transmission pipeline. Composite pipe (Smartpipe®)³ is a type of flexible reinforced thermoplastic pipe (RTP) which is not authorized for use in regulated gas transmission pipelines.

¹ Throughout this special permit, the usage of "PHMSA" or "PHMSA OPS" means the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety.

² East Tennessee Natural Gas, LLC is owned by Enbridge.

³ Smartpipe® is defined as the composite pipe. Smartpipe® system is the Smartpipe® pipe and components.

I. Purpose and Need:

This special permit allows ETNG to maintain the current maximum allowable operating pressure (MAOP) of 813 pounds per square inch gauge (psig). This segment is non piggable, and without a special permit, it would be subject to MAOP reconfirmation under 49 CFR § 192.624 assessment requirements for Class 3 locations.

This special permit application request seeks a special permit to use composite pipe in a gas transmission pipeline that operates at a MAOP of 813 psig. ETNG has requested a special permit for approximately 0.64 miles of natural gas transmission pipeline of the following 49 CFR Part 192 sections:

Section	Section Title	Description of Waived Requirements				
192.53(c)	General	Sub-paragraph (c) does not recognize Smartpipe® in meeting the				
		requirements of the Subpart.				
		The qualification requirements are specific to plastic pipe, and do				
192.121	Design of Plastic Pipe	not apply to flexible non-metallic Reinforced Thermoplastic Pipe				
		(RTP) such as Smartpipe®.				
192 144	Qualifying metallic components	There is no listed specification for the swaged steel connectors to use				
192.144	Quantying inclaime components	with Smartpipe®.				
192.149	Standard fittings	There is no listed specification for Smartpipe® connectors.				
102 150	Passage of internal inspection	There are presently no ILI tools for composite pipe systems since the				
192.130	devices	internal wall of the composite is thermoplastic instead of steel.				
192.619(a)	Maximum allowable operating	This section does not provide a design formula for RTP.				
	pressure: Steel or plastic pipelines					
	Maximum allowable					
192.624	operating pressure	The MAOP reconfirmation requirements do not expressly				
	reconfirmation: Onshore steel	contemplate the installation of composite RTP.				
	transmission pipelines					
		The assessment requirements are specific to onshore steel				
192.710	Transmission lines: Assessments	transmission pipelines and do not expressly contemplate assessment				
	outside of high consequence areas	of pipelines comprised of composite RTP.				
192.714	Transmission lines: Repair	The repair requirements are specific to onshore steel transmission				
(effective May	criteria for onshore transmission	pipelines and do not expressly contemplate assessment of pipelines				
$24,2023)^4$	pipelines	comprised of composite RTP.				
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⁴ Final Rule, Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Changes, and Other Related Amendments, 87 Fed. Reg. 522245 (Aug. 24, 2022) (with an effective date of May 24, 2023).

Special Permit Segment:

This special permit pertains to the specified *special permit segment* defined in **Table 1 – Special Permit Segment** and is identified using the ETNG survey station (SS). The *special permit segment* is defined as the Smartpipe®, fittings, monitoring devices, and related facilities to be installed to comply with the special permit conditions.

Table 1 – Special Permit Segment									
Outside Diameter (inches)	Line Name	Length (feet)	Start Survey Station (SS)	End Survey Station (SS)	County, State	No. Dwellings	Year Installed	Seam Type	MAOP (psig)
8.625	RURA-ELON – Line 3320A-100	3,403	0+00	34+03	Roanoke, VA	6	1965	ERW	813

<u>Note</u>: **ERW** is a low frequency electric resistance welded pipe longitudinal seam.

Attachment A is a general map that includes the pipeline route map showing the *special permit segment*.

The current potential impact radius (PIR) for ETNG Line 3320A-100 is 170 feet, and there are 6 dwelling units within the PIR. The MAOP of the *special permit segment* is 813 pounds per square inch gauge (psig), which ETNG does not propose to increase under this special permit. Thus, there will be no change to the PIR for the *special permit segment*.

PHMSA grants this special permit based on the findings set forth in the "Final Environmental Assessment and Finding of No Significant Impact" document, which can be read in its entirety in Docket No. PHMSA-2022-0167 in the Federal Docket Management System located on the internet at <u>www.regulations.gov</u>.

II. Conditions:

PHMSA grants this special permit subject to ETNG implementing the following conditions on the *special permit segment*.

1) <u>Condition 1 - Maximum Allowable Operating Pressure and General Conditions</u>

a) <u>Maximum Allowable Operating Pressure</u>: ETNG must continue to operate each *special permit segment* at or below a MAOP of 813 pounds per square inch gauge (psig). This MAOP has been established based on the pipeline facilities that connect to the *special permit segment*, which is ETNG's Line 3320A-100.

b) <u>Hydrostatic Test</u>: Prior to ETNG putting the pipe in service, the pipe, connections, and appurtenances must be field hydrostatically tested at a pressure of 1.5 times the MAOP of 813 psig (minimum test pressure of 1,220 psig) for a minimum of 12 hours with recording charts (pressure chart, temperature chart, dead weights and log, and calibration records of equipment, calibrated within 30 days of test), the results of which must be made available to the Director, PHMSA Central Region, for review, including determination parameters of an acceptable test. ETNG must compensate for temperature and elevation variations and such compensation must be documented on test records.

c) <u>General Conditions</u>:

- i) The Smartpipe® in the pipeline must operate at or below a design factor of 0.449 for all Class locations and road crossings within the *special permit segment*.
- ii) Due to the composite design of Smartpipe®, Barlow's formula in 49 CFR 192.105 cannot be used to determine the pressure rating of this material, per API 15S, Second Edition, Section 5.3.3. In this case, the 7.6-inch diameter Smartpipe® has a minimum burst pressure of 4,300 psig, which results in a maximum pressure rating of 813 psig.⁵

2) <u>Condition 2 - Procedure Updates</u>

Within 90 days of the grant of the special permit, ETNG must develop and maintain procedures in accordance with 49 CFR 192.603 and 192.605 that incorporate the special permit condition requirements as follows:

- a) <u>Operations and Maintenance Manual</u>: ETNG must amend the applicable sections of its Operations and Maintenance (O&M) manual(s) and procedures to incorporate the special permit conditions, including but not limited to the following:
 - i) ETNG must document its repair and replacement procedures and standards within the comprehensive written specifications or standards required under 49 CFR 192.303 and the O&M Procedures required in 49 CFR 192.605.

⁵ The 7.6-inch diameter Smartpipe® will be 6.0-inch inside diameter and 7.6-inch outside diameter with a rating of 813 psig, empty weight of 5.7 pounds per foot, maximum pipe operating temperature of 120 degrees Fahrenheit (°F), and maximum installation tension of 40,000 pounds.

 ii) ETNG must develop O&M Procedures based upon safe operating conditions but must hand dig for initial location of the *special permit segment* pipeline and associated monitoring devices or communication lines. ETNG must hand or shovel dig whenever excavation operations are within two (2) feet of the pipeline and associated monitoring devices' communication lines.

b) Integrity Management Program:

- i) ETNG must incorporate each *special permit segment* into its written integrity management program (IMP) procedures as if the *special permit segment* is a "covered segment" as defined in 49 CFR 192.903 and must develop and follow an integrity management (IM) program in accordance with the requirements of 49 CFR Part 192, Subpart O (except as waived or modified herein) applicable to plastic transmission pipelines including the following sections: 49 CFR 192.901, 192.917(b) through (e), 192.921(a)(2) or (a)(4), 192.935, 192.937(c)(2) or (c)(4), and 192.939(b). This includes, but is not limited to, risk assessments, regular patrolling, participation in the national one-call system, direct assessment sections for periodic testing and installation of remote-controlled valves.
- ii) The *special permit segment* must have integrity threats identified, assessed, and remediated in accordance with these special permit conditions, 49 CFR 192.917, and 49 CFR Part 192, Subpart O.
- iii) Any high consequence area (HCA) in a *special permit segment* must be assessed and remediated for threats in accordance with these special permit conditions and 49 CFR Part 192, Subpart O.
- iv) All permit conditions that are applicable to the *special permit segment* are applicable to HCAs where the HCA overlaps the *special permit segment*.
- v) The *special permit segment* must meet the requirements of 49 CFR 192, Subpart O, if
 Subpart O is more stringent than the special permit conditions.
- c) <u>Damage Prevention Program</u>: ETNG must incorporate within a *special permit inspection area* the applicable best practices of the Common Ground Alliance (CGA)⁶ in its damage prevention (DP) program. ETNG must prepare and follow a damage prevention program in

⁶ Common Ground Alliance. (March 2020). Best Practices Guide. Retrieved from: <u>https://commongroundalliance.com/BPguide</u>.

accordance with 49 CFR 192.614. ETNG must make this program part of its O&M Procedures prior to placing the *special permit segment* in natural gas service.

d) <u>Manuals - Design, Construction, Operating, Maintenance, and Emergency Response</u>: ETNG must submit manuals, procedures, specifications, or other documents pertaining to the Design, Construction, O&M, and Emergency Response related to the *special permit segment* for review by the Director, PHMSA Central Region, at least 30 days prior to operation of the *special permit segment* pipeline, unless otherwise indicated in writing by the Director, PHMSA Central Region.

3) Condition 3 - General and Design Requirements

- a) **Branches**: ETNG must not tap, branch, or split the *special permit segment* Smartpipe® without the use of the appropriate Smart Pipe Company Inc. (SPCI) manufactured fittings for the specified application. Prior to installation of a tap, branch, or split, ETNG must submit a notification to the Director, PHMSA Central Region, and receive a "no objection" letter.
- b) <u>Road Crossings</u>: Due to the nature of the installation method, all road crossings must be cased with steel pipe. Any future road crossings using Smartpipe® must have a minimum of 36inches cover and must be cased or 49 CFR Part 192 compliant steel pipe must be installed.

4) Condition 4 - Material and Testing Requirements

- a) <u>Pipe Layers</u>: ETNG must install line pipe in the *special permit segment* that is comprised of high-density polyethylene (HDPE) PE4710 inner layer made from natural gas pipe grade material, which meet the material requirements of API 15S, Second Edition. All composite components must be manufactured and tested in accordance with API 15S, Second Edition.
- b) **Regrind and Rework of Polymeric Materials**: Materials used in the manufacture of the pipe installed within the *special permit segment*, during construction or in future repairs or replacement, may not contain any regrind or rework material.
- c) <u>Outdoor Pipe Storage</u>: ETNG must comply with API 15S, Second Edition requirements for outdoor storage and ultraviolet radiation exposure of polyethylene (PE) pipe for all Smartpipe® system materials used in the *special permit segment*. ETNG must document compliance with API 15S, Second Edition in its Material Specifications and O&M Procedures.
- d) <u>Factory Pressure Testing</u>: To verify the pipe produced for the *special permit segment* two (2) samples from beginning of production and two (2) samples from end of production must be factory pressure tested by short term burst following API 15S, Second Edition, Section 6.4.2.2

with results compared to product variant testing to qualify production parameters. ETNG must make available pressure test records demonstrating that *special permit segment* pipe was factory pressure tested. Such records must be traceable to line pipe, repair pipe, and replacement pipe used within the *special permit segment* and must include: pressure test reports, pressure testing parameters (pressure, time, procedure and/or standard number, date, etc. and test acceptance parameters), and pressure testing recorders with current calibration records for pressure test recoding equipment. ETNG must provide a certification from the pipe manufacturer that the tests were completed. ETNG must make available all pressure test records to the Director, PHMSA Central Region, prior to operation of the *special permit segment* upon request.

- e) <u>Testing of Reinforcement Materials</u>: Smartpipe® samples that are same design and construction as the special permit segment must be obtained from Smartpipe® inventory. The following testing must be performed:
 - i) Conduct short-term burst testing on five (5) samples at ambient temperature per the requirements of American Petroleum Institute, API 15S, Second Edition, Section 5.3.4.
 - ii) The reinforcement materials, prior to pipe construction, shall be destructively tested.
 Samples from each reinforcement material reel shall be tested for yield strength, and elongation. in accordance with American Society for Testing and Materials (ASTM),
 ASTM D5035. The results of the tensile properties testing must be compared to the manufacturer's requirements for as-received reinforcement materials
 - iii) ETNG must obtain mechanical and chemical properties test reports that certify the reinforcement material used in manufacturing the Smartpipe®.
- f) <u>Elevated Temperature Testing</u>: One (1) sample obtained from Smartpipe® inventory, of the same design and construction to be used in the *special permit segment*, must be subjected to elevated temperature testing per the requirements of API 15S, Second Edition, Section 5.4.3.2.
- g) <u>Long-Term Integrity</u>: In designing the pipeline, ETNG must consider and plan for all pipeline integrity risk factors, including, but not limited to: Pressure and temperature cycling; performance of multilayer Smartpipe® at minimum operating temperatures, and repairs under a range of ambient conditions; long term performance of composite material and mechanical fittings; cathodic protection of metallic appurtenances; long term performance of pipe; risk

migration through damage to the pipe wall; and methods for assessment of buried or excavated pipe.

- i) ETNG must schedule and perform three (3) inspections during which non-destructive and destructive testing must be performed on the pipe material after installation.
 Nondestructive testing must focus on the composition and degradation of the pipe material and destructive testing must include a hydrotest to burst pressure. ETNG must perform these inspections and tests in years 1, 3, and 4.5 (not to exceed this timing by 90-days) after installation.
- ii) A Direct Assessment⁷ segment must be installed in such a way that simulates the condition of the *special permit segment* in the immediate vicinity of the operating pipeline at Milepost 0.64 on or near ETNG's property, see Appendix A Pipeline Overview Map. This Smartpipe® Direct Assessment segment must have 10 feet removed during the intervals defined in Condition 3(g)(i) above to be evaluated, including destructive testing. The test results must be sent to the Director, PHMSA Central Region, and posted on the docket at <u>www.regulations.gov</u>.
 - (1) Each removed Direct Assessment sample must be disassembled, visually, and nondestructively inspected, as appropriate, including any indications of corrosion or slippage of the end fitting.
 - (2) The Smartpipe® Direct Assessment sample must be burst tested per the requirements of API 15S, Second Edition, Section 6.4.2.2.
- iii) Perform removal, replacement, and installation of pipe and fittings, and other actions related to the removal of test segments, in accordance with the requirements of this special permit.
- iv) ETNG must report the results of the inspections and tests to the Director, PHMSA Central Region, within 60 days of completion of testing.
- v) In lieu of performing the testing requirements described in Conditions 4(g)(i) and
 4(g)(ii)(1) and (2), of this special permit, and since the special permit segment will be

⁷ Direct Assessment Segment consists of multiple Smartpipe® samples that are from the same production run of the installed *special permit segment*. The Direct Assessment Segment is attached to the *special permit segment* and will operate at the same pressure, temperature, and flow as the *special permit segment*. The Direct Assessment segment can be isolated for removal of Smartpipe® samples for testing as prescribed in the special permit conditions.

connected to the special permit segment installed under PHMSA-2022-0167, ETNG may use the results of the destructive and non-destructive testing to determine the long-term integrity of the pipeline. Any results from the analysis of these tests that require corrective action(s) shall be applied to the special permit segment.

5) <u>Condition 5 - Construction Operator Qualifications</u>

- a) If the performance of a construction task associated with construction or repair of the *special permit segment* could affect the integrity of the segment, ETNG must treat that task as a "covered task" notwithstanding the definition in 49 CFR 192.801(b), and must implement the requirements of 49 CFR Part 192, Subpart N. ETNG's construction operator qualification (COQ) procedures, training program, and qualification tests must include detailed information on all construction-related tasks as a covered task.
- b) ETNG must develop and implement a COQ plan that specifically relates to construction activities for the *special permit segment*. The purpose of the plan must be to ensure construction personnel and operations personnel are trained. The COQ plan must be followed throughout the construction phase with respect to the following: pipe inspection, hauling and stringing, appurtenance inspection, installation of appurtenances, padding and backfilling as required, hydrostatic testing, pipe repairs made from hydrostatic testing, dewatering and purging, and inspection of work (i.e. trenching, excavating, etc.). These tasks can affect the integrity of the *special permit segment* and must be treated as "covered tasks." The Smartpipe® must be installed in one continuous section. Installation and end connections systems must be completed by qualified SPCI personnel.
- c) ETNG must also treat in the following *special permit segment* tasks as covered COQ "covered tasks," such tasks include: right-of-way soil stability determination, surveying, locating foreign lines, one call notifications, ditching or excavation, cathodic protection (CP) system surveys, mitigation, and installation, anomaly evaluations and repairs, right of way clean up (including installation of line markers), SCADA control point installation and verification, gas quality monitoring, and quality assurance monitoring.
- d) ETNG must have SPCI personnel on-site when initial pipeline installation is conducted.
 ETNG must have SPCI certified joining personnel onsite installing all SPCI end fittings.
- e) ETNG must develop and make available its COQ plan to the Director, PHMSA Central Region, 30-days prior to beginning construction.

6) <u>Condition 6 - Excavation, Pipe Cover, and Damage Prevention</u>

a) **<u>Pipe - Inspection for Damage</u>**:

- i) ETNG must develop and implement an inspection training and qualification plan and must send the plan to the Director, PHMSA Central Region, 30 days prior to the start of construction. This plan must define the requirements and training necessary to inspect and evaluate damage to Smartpipe® and fittings. In addition, ETNG must have SPCI employees on site during any insertion activities to not only to advise on any construction related activities but to assist in inspection, evaluation, and repair of any damage indications, should they be encountered. Note: The Smartpipe® configuration referenced below has a C-formed outer cover of 25 mil (.025 inch) thick that is intended to be sacrificial during pull-in.
- ii) ETNG must certify and document all inspections with date, time, pipeline station, and Smartpipe® product identification number.
- iii) ETNG must inspect the leading 50 feet of pull-through pipe for damage. All indications of pipe damage must be evaluated and replaced or repaired as follows:
 - (1) Prior to installation a 100-foot section (Beta) of Smartpipe® will be pulled through to verify the host pipe condition and Smartpipe® condition post pull through. If the Smartpipe® body that has a cut through the outer pipe covers greater than 75 mil (0.075 inch) and fully exposes the helical reinforcement fiber bundles, this shall be cause for further cleaning and inspection of the host pipe. A successful Beta run shall be completed before the final pull through.
 - (2) During the Smartpipe® installation, if the Smartpipe® pipe body is cut through the outer round pipe covers greater than 75 mil (0.075 inch) in depth and greater than six inches in length or width exposing the axial reinforcement layers, continue to pull through until there is 25 feet of undamaged section. All indications of pipe damage (as described above) must be evaluated by SPCI qualified personnel and tested, replaced, or repaired as follows:
 - (a) Any cuts greater than 100 mils (0.10 inch) of the outer pipe layers and exposing the axial fiber strength layers (pull tapes) shall be cause for burst testing a section of pull-through pipe.

- (i) Cut out section, remove outer cover layers for inspection, re-round section and burst test to confirm integrity of helical reinforcement and core pipe.
- (ii) If burst test is successful, continue termination operations.
- (b) Any cuts greater than 200 mils (0.200 inch) through the outer pipe layers and axial reinforcement layers and into the of the helical reinforcement fiber bundles shall be cause for rejection of pull through section.
 - (i) Pull through additional pipe to confirm condition.
 - (ii) If pipe does not meet the above criteria, pipe at contingency termination locations will be assessed.
- iv) During the pre-installation, the operator must develop procedures for internally cleaning the existing 8.625-inch diameter pipe (future casing pipe) to remove liquids and debris and to inspect the casing pipe for any hazards that could damage the Smartpipe® during the casing pull through. See Condition 6(a)(iii)(1) above for Beta section confirmation.
- v) Prior to insertion, each insertion section of the *special permit segment* must be pigged with a cleaning pig to verify the cleanness of the section. If any liquids are found as a result of this cleaning pig run, additional cleaning pig runs must be performed until no unwanted liquids are found.
- vi) During the insertion process, the tensile force on the Smartpipe® must be monitored by use of a calibrated dynamometer, calibrated within six (6) months of use. This tensile force shall be limited to 40,000 pounds which is 44% of the Smartpipe® rating of 90,000 pounds force.
- b) ETNG must develop and implement O&M Procedures and/or Construction Specifications to remove and replace any Smartpipe® with the following conditions:
 - Damage at any place that exceeds the criteria for wall damage defined in Condition 6(a)(iii)(2).
 - (2) All Smartpipe[®] must be newly produced after the grant of this special permit and not obtained from inventory.
 - (3) ETNG must not install any Smartpipe® above grade (ground).
- c) Other possible signs of material damage or unsoundness must be reviewed by qualified personnel, and if the integrity of the Smartpipe® is negatively affected, ETNG must remove and replace such pipe.

7) Condition 7 - Corrosion Control

- a) ETNG must apply cathodic protection (CP) on all buried Smartpipe® components and joints, and the existing 8.625-inch diameter steel pipe (where used as a casing for the Smartpipe®) within the *special permit segment* in accordance with 49 CFR Part 192 (except as waived or modified herein).
 - i) Each Smartpipe® end fitting or fitting enclosure must be installed with an anode and CP test station.
 - ii) ETNG must install CP test stations at each metallic end fitting or end fitting enclosure.
- b) ETNG must perform external corrosion control monitoring on each buried metallic fitting and the existing 8.625-inch diameter steel pipe (where used as a casing for the Smartpipe®) in accordance with 49 CFR 192.465. ETNG must perform CP monitoring at least once each calendar year, not exceeding 15 months. Corrosion control monitoring of the buried metallic fittings by a sampling basis is not permitted.
 - i) Each Smartpipe® end fitting must be installed with a test station and anode, coated and direct buried or inside end fitting enclosure.
 - ii) ETNG must determine the native structure-to-electrolyte potential for each buried metallic fitting prior to energizing the CP system.
- c) ETNG must seal the pipeline casing ends to prevent water and other debris from entering the casing annulus.

8) Condition 8 - Pressure and Temperature Control and Monitoring

- a) ETNG must install an annulus monitoring system (**Condition 8(d**) below) that will provide continuous integrity monitoring of the Smartpipe® to casing annulus.
- b) <u>Over-Pressure Protection</u>: ETNG must install over-pressure protection equipment necessary to keep the pipeline pressure from exceeding 813 psig plus allowable build-up at any time. Allowable build ups are those conditions which occur due to anomalous conditions outside of the *special permit segment*. Occurrences resulting in pressures exceeding 813 psig plus allowable build-up of MAOP plus 4%, must be reported to the Director, PHMSA Central Region, within 24 hours or the next business day of the occurrence for their review.
- c) <u>Pressure Monitoring</u>: ETNG must monitor operating pressures by the installation of pressure transmitters and switches in the piping system that report to the facility's SCADA system.
 ETNG must monitor the *special permit segment* with continuous and redundant pressure

transmitters and switches. ETNG must provide a means to inform operator personnel performing work on the pipeline of the pressure on the line.

- d) <u>Annulus Monitoring</u>: ETNG must install an annulus monitoring system that will provide continuous integrity monitoring of the Smartpipe® to casing annulus:
 - i) ETNG must continuously monitor through SCADA the pressure of the annulus space between the Smartpipe® and casing along the entire *special permit segment*. These pressure monitoring transmitters and pressure vents must be located at MP 0.64, see Appendix A - Pipeline - Special Permit Segment Maps.
 - ii) The annulus between Smartpipe® and casing is used to monitor casing integrity. This annulus is a pressure containing capable structure that is designed to contain pressure up to 60 psig. Outlets on the end fittings will be outfitted with the necessary tubing to attach pressure transmitters that must be incorporated into SCADA monitoring. With permeated gasses permitted to build to a predetermined level (15 to 25 psig), transmitters will be configured to alarm on indications of high or low pressure outside of the established acceptable range. Continuous pressure readings within acceptable ranges provide real time indication that several key integrity features are functioning as designed. Any breach of the casing will result in a loss in pressure indicated by the "real time" annulus monitoring. This monitoring will alert ETNG that third party damage, casing or liner failure may have occurred, allowing prompt response for further investigation. ETNG will use this monitoring capability and monitor this annular pressure with a SCADA system on a continuous 24-hour basis.
 - iii) The Smartpipe® fittings must be designed to allow the annulus of each segment of pipe to be common with each other, so that monitoring of the annular space can be conducted at one end of the system.
 - iv) A pressure relief valve with a 60 psig set point must be installed with annulus monitoring equipment to maintain the predetermined level of annulus pressure (15 to 25 psig). This relief and the associated annulus monitoring equipment must be located within fenced in locations at mile post 0.64.
- e) <u>Gas Temperature</u>: ETNG must continuously monitor natural gas temperature at MP 0.64, see Appendix A - Special Permit Segment Maps, in order that the pipeline is not exposed to temperatures exceeding 120 degrees Fahrenheit (°F). If the Smartpipe® is exposed to

temperatures exceeding 120°F⁸, ETNG must conduct an investigation to demonstrate the integrity of the *special permit segment* pipeline. The results must be provided to the Director, PHMSA Central Region, for their review.

f) <u>Fiber Optic Monitoring</u>: Smartpipe[®] must be installed with distributed fiber optic sensors along the full length of *special permit segment* to monitor acoustic signatures, identifying third party intrusion and leak detection. ETNG must continuously monitor the system through SCADA.

9) <u>Condition 9 – Mainline Valve – Monitoring and Remote Control for Ruptures</u>:

ETNG must automate mainline valves⁹ for closure or demonstrate capability to manually close mainline valves in accordance with the requirements of this **Condition 9**. A *special permit segment* must have upstream and downstream remote-controlled valves (RCVs) so that the distance between the valves is no greater than 20 miles.¹⁰ ETNG must automate mainline valves to close in accordance with the requirements in **Condition 9** within 12 months of the grant of this special permit.

The *special permit segment* is on a lateral line. ETNG must automate the valve at MP 0.0 for closure or demonstrate capability to manually close valve in accordance with the requirements of this **Condition 9**.

The *special permit segment* must have procedures for rupture isolation as follows:

- a) <u>Valve Locations</u>: RCVs must be installed as shown in Table 2 Valves and Lateral Locations with Isolations Methods. Each *special permit segment* must have telemetry connections to the ETNG supervisory control and data acquisition (SCADA) system installed.
- b) <u>Remote Monitoring and Control</u>: Each *special permit segment* must be controlled by a SCADA system and must be equipped for remote monitoring and control, or remote monitoring and automatic control, in accordance with 49 CFR 192.620(d)(3)(iii) and the below requirements in this Condition 9(f).

⁸ Smartpipe® has a maximum operating temperature of 140 degrees Fahrenheit, based on a Product Family Representative as established pursuant to API 15S, Second Edition Testing.

⁹ A mainline valve is a sectionalizing valve used to isolate or stop gas flow upstream or downstream along the pipeline.

¹⁰ If the distance between mainline isolation valves exceeds 20 miles, additional mainline valve(s) must be added.

- c) <u>Crossover or Lateral Pipe Connection Isolation</u>: If any crossover or lateral pipe¹¹ connects to the isolated segment between the upstream and downstream mainline valves, the nearest valve on the crossover connection(s) or lateral(s) must be isolated such that, when all valves are closed, there is no flow path for gas to flow to the leak or rupture site (except for residual gas already in the shut-off segment). If the nearest valve for a gas receipt or delivery line to the *special permit segment* is not isolated, isolation valves must be installed within 12 months of the grant of this special permit.¹² Valves that are in the ETNG O&M procedures as locked closed and that are only opened when manned by ETNG operating personnel do not require RCVs or ASVs for closure.
- d) <u>**Remote-Control Valve Status**</u>: RCVs must be constantly monitored for valve status (open, closed, or partial closed/open), upstream pressure, and downstream pressure.
- Mainline Valve Closure: Closure of the appropriate valves following a pipeline leak or rupture must occur "as soon as practicable" and must not exceed 30 minutes from the "notification of potential rupture" as defined below:¹³
 - i) "Notification of Potential Rupture" means any of the following events that involve an unintentional or uncontrolled release of a large volume of gas from a transmission pipeline:
 - (1) A release of gas observed by or reported to ETNG (e.g., by its controller(s) in a control room, field operations personnel, nearby pipeline or utility personnel, the public, local

¹¹ Table 2 - Valves and Lateral Locations with Isolations Methods has a listing of all lateral valves. ETNG must update Table 2 if a lateral or crossover valve (includes any blowdown valve at an isolation valve that can feed gas into the rupture isolation segment) was not identified or is added after the grant of the special permit and submit this update in accordance with Condition 13 – Annual Report. ETNG has identified that no laterals exist between isolation valves for a *special permit segment*. ETNG must update Table 2 - Valves and Lateral Locations with Isolations Methods if a lateral or crossover valve (includes any blowdown valve at an isolation valve that can feed gas into the rupture isolation segment) was not identified or is added after the grant of the special permit and submit this update in accordance with Condition 13 – Annual Report.

¹² Gas delivery or receipt pipelines must have a shutoff valve (gate or ball valve) either at the connection between the isolation valves for a *special permit segment* or at the delivery or receipt meter station. Any gas delivery or receipt station over 5-miles in length that is connected between the isolation valves for a *special permit segment* must have a RCV or ASV within 5-miles of the pipeline tie-in. For gas delivery or receipt pipelines manual shutoff valves can be used for isolation but must be closed within 30-minutes of the pipeline leak or rupture confirmation. Check valves cannot be used for pipelines over 8-inch diameter.

¹³ The pipeline valve section location to be closed and isolated (if there should be a rupture) must be confirmed by ETNG through Gas Control or other field operations personnel monitoring of the appropriate pipeline pressures, pressure changes, or flow rate changes through a compressor discharge section or by location confirmation from responsible persons.

responders, or public authorities) that may be representative of an unintentional or uncontrolled release event meeting **paragraphs** (2) or (3) of this definition;

- (2) ETNG observes an unanticipated or unplanned pressure loss outside of the pipeline's normal operating pressures, as defined in ETNG's written procedures. If ETNG establishes an unanticipated or unplanned pressure loss threshold that is greater than a 10% pressure loss, occurring within a time interval of 15 minutes or less, ETNG must document in its written procedures the need for a greater pressure-change threshold due to pipeline flow dynamics (including the pipeline operating pressure, gas flow rate or volume), that are caused by fluctuations in gas demand, gas receipts, or gas deliveries; or
- (3) ETNG observes an unexplained flow rate change, pressure change, equipment function, or other pipeline instrumentation indication that may be representative of an event meeting paragraph (2) of this definition.

<u>Note:</u> Notification of potential rupture occurs when an event, as defined in this section/paragraphs (2) or (3) above, is first observed by or reported to ETNG.

- ii) ETNG must evaluate and identify a rupture,¹⁴ as defined above, as being either an actual leak event, rupture event, or non-rupture event in accordance with operating procedures and 49 CFR 192.615.
- f) <u>Gas Control Center Monitoring</u>: The ETNG Gas Control Center must monitor the *special permit inspection area* 24 hours a day, seven (7) days a week, and must confirm the existence of a leak or rupture as soon as practicable in accordance with ETNG pipeline operating procedures.
- g) <u>Remote Monitoring</u>: ETNG must maintain remote monitoring and automatic control equipment, mainline valves, mainline valve operators, and pressure sensors in accordance with 49 CFR 192.631 and 192.745. All remote monitoring and automatic control equipment, including pressure sensors, must have backup power to maintain communications and control to the ETNG Gas Control Center during power outages.

¹⁴ For all in-service and pressure test failures, ETNG must perform a root cause analysis, including examination of the failed pipe, to determine if the failure is caused by a systemic or non-systemic issue. ETNG must provide the written results of this root cause analysis to the Director, PHMSA Central Region, within 90 days of the failure and must submit a copy of the root cause analysis to the Director, PHMSA Engineering and Research Division.

- h) <u>Point-to-Point Verification</u>: ETNG must conduct a point-to-point verification between SCADA displays and the mainline valve, sensors, and communications equipment in accordance with 49 CFR 192.631(c) and (e).
- i) **Valve Maintenance**: ETNG must maintain all valves used to isolate a leak or rupture in accordance with this special permit and 49 CFR 192.745.
- j) **Inoperable Valves**: ETNG must take remedial measures to correct any valve used to isolate a leak or rupture that is found to be inoperable or unable to maintain shutoff, as follows:
 - i) Repair or replace the valve as soon as practicable but no later than six (6) months after the finding;
 - ii) Designate an alternative valve within 14 calendar days of the finding while repairs are being made. Repairs must be completed within six (6) months; and
 - iii) If valve repair or replacement cannot be met due to circumstances beyond ETNG's control, ETNG must notify, in writing, the Director, PHMSA Central Region, of the reasons the schedule cannot be met and obtain a letter of "no objection" from PHMSA prior to implementing the schedule change.

k) **Emergency Communications**:

- i) ETNG must establish and maintain adequate means of communication with the appropriate public safety access point (9-1-1 emergency call center) or emergency management coordinating agency and must notify them, as well other emergency responders, if there is a leak or rupture, as required in 49 CFR 192.615;
- ii) ETNG must immediately and directly notify the appropriate public safety access point (9-1-1 emergency call center) or other emergency management coordinating agency for the communities and jurisdictions in which the pipeline is located when a release is indicated;¹⁵ and
- iii) In accordance with these special permit conditions and as required in 49 CFR 192.615 and 192.631, ETNG must establish actions required to be taken by a pipeline controller or the

¹⁵ ETNG must designate the pipeline controller or the appropriate operator emergency response coordinator in its operating procedures and train the designated individual for coordinating with emergency responders.

appropriate emergency response coordinator when an emergency occurs in the *special permit inspection area*.

10) Condition 10 - Construction and Operations

- a) <u>Tools and Equipment</u>: ETNG must have tools and fittings available either by stocking them or from a local vendor such that it can respond within a reasonable time to operational maintenance and emergency repairs (the number and types must be detailed in the O&M Procedures):
 - i) An inventory of tools and materials must be indicated in the O&M Procedures for maintenance and emergency repairs.
 - ii) ETNG must have available either by stocking such or from a local vendor appropriate tools and fittings to repair and replace appurtenances and piping within the *special permit segment*.
 - iii) ETNG must maintain a supply of Smartpipe® at ETNG's operational maintenance yards for the *special permit segment*.
 - iv) Construction Specifications: ETNG must develop construction specifications for all construction phases of the *special permit segment*. These construction specifications must be made available to the Director, PHMSA Central Region, 30-days prior to beginning construction of the *special permit segment* pipeline.
- b) <u>Inspection Criteria</u>: ETNG must develop inspection criteria for construction procedures and document them within the O&M Procedures. The inspection criteria must meet the requirements of these special permit conditions and 49 CFR Part 192 (except as waived or modified herein). These inspection criteria must be made available to the Director, PHMSA Central Region, 30-days prior to beginning construction of the *special permit segment* pipeline.
- c) <u>Repair Criteria</u>: ETNG must develop pipe repair criteria and document them within the O&M Procedures. Repair criteria must be submitted to the Director, PHMSA Central Region, 30days prior to beginning construction of the *special permit segment* pipeline.
- d) <u>Leakage Detection Surveys</u>: ETNG must conduct leakage detection surveys of the entire *special permit segment* four (4) times per calendar year at a minimum, not to exceed 4-½ months between surveys in accordance with the requirements of 49 CFR 192.706, utilizing instrumented leak detection equipment capable of parts per million (ppm) detection. ETNG

must repair all leaks as they are found, and notify the Director, PHMSA Central Region, of any leaks found within two (2) business days. Leak testing procedures, equipment, and scheduling must be documented within the O&M Procedures. The first survey must be performed within 48 hours of commencement of pipeline operations with natural gas.

e) Depth of Cover:

- i) ETNG must conform to the depth of cover requirements in 49 CFR 192.327 for any new construction outside of the *special permit segment*.
- ii) Based upon available depth of cover information, the depth of cover of the existing pipeline may not meet 49 CFR 192.327 requirements depending on soil conditions (i.e. Class 1 locations in consolidated rock may be installed at a depth of cover of 18-inches per 49 CFR 192.327 as opposed to an installation depth of cover of 30-inches in normal soil). All pipe locations with cover less than 24-inches must have additional preventive and mitigative measures such as additional pipeline markers, lowering the pipe, adding cover, or installing subsurface concrete safety barriers.¹⁶
- iii) Due to the insertion method, two (2) bell holes will be dug, and sections of the existing pipeline will be removed to facilitate the installation process. In these areas, the Smartpipe® end fittings will be encased in an enclosure system that will mitigate any potential impingement or combined loading stresses to the Smartpipe® and Smartpipe® end fitting. To minimize environmental impacts, the bell holes will be kept to a minimum length that will allow for the safe installation of the Smartpipe®. The fitting enclosure will also seal the casing. ETNG will bury the Smartpipe® and fittings enclosure to a depth that satisfies 49 CFR 192.327, where practicable.
- iv) At locations where it is possible to lower the Smartpipe® without the potential of impingement of the outer liner, ETNG must install the pipe at a depth per the requirements of 49 CFR 192.327.
- f) <u>Line Markers</u>: ETNG must install and maintain line-of-sight markings on the pipeline in the *special permit segment* except in agricultural areas or large water crossings such as lakes where line-of-sight signage is not practical. These areas must have line markers and/or test stations installed to designate the location of the line.

¹⁶ ETNG must submit to the Director, PHMSA Central Region, and must receive a "no objection" letter for the type of preventive and mitigative measures being used on all pipe and casing segments with cover less than 24-inches.

- g) <u>Right-of-Way Patrols</u>: ETNG must perform patrolling of this line four (4) times per calendar year at a minimum, not to exceed 4-½ months between surveys in accordance with 49 CFR 192.705. The patrols must include observations of any locations that may have become exposed. These exposures must be reviewed and prioritized for remediation per ETNG's O&M Procedures, not to exceed 12-months.
- h) <u>Annual Class Location Study</u>: ETNG must conduct a class location study on the *special permit inspection area* at least once each calendar year, with intervals not to exceed 15 months, in accordance with 49 CFR 192.609.
 - Should a Class location increase or expand in length in the *special permit segment*, ETNG must notify PHMSA of the Class location changes, a new high consequence area (HCA), or a new medium consequence area (MCA).
 - ii) This special permit is not applicable for Class 4 locations, HCAs, MCAs, or for a Class location bump as described in 49 CFR 192.611.

11) Condition 11 - Communication and Records

- a) <u>Communication and Contact of Personnel</u>: ETNG must maintain a log of all material suppliers and vendors, consultants, subcontractors, ETNG employees, and all other parties involved in the material supply, design, construction, and O&M of this *special permit segment* with name, address, phone number, mobile phone number, e-mail, and other pertinent information, including COQ and operator qualification (OQ) training data.
- b) Photos and Videos: ETNG must develop documentation that is representative of the following phases of the *special permit segment* construction utilizing Smartpipe® and fittings: Offloading, stringing/uncoiling, inserting, pulling-through, joining/swaging, coating of fittings, cathodic protection installation and backfilling. The representative operations must be documented with photographs, videos, or other appropriate forms of documentation, which must be made available to the Director, PHMSA Central Region, within 90 days of the *special permit segment* in-service date.
- c) **Design and Material Review**: Before operating the pipeline with natural gas, ETNG must make available the following information, to the Director, PHMSA Central Region:
 - i) Specific materials used in the Smartpipe® used in the *special permit segment*, with detailed schematic of the layers, layer thickness, outside diameter, and inside diameter;

- ii) Pipe manufacturing quality assurance processes and programs including, but not limited to, procedures, pipe and material test results, standards followed, certifications, manufacturing personnel qualifications, and any other items regarding quality assurance;
- iii) Design criteria for each Class location, road crossing, and stream crossing, if applicable, see Conditions 1(c)(i);
- iv) Calculations of maximum loads that the Smartpipe® can tolerate and will be subject to in service; and
- v) Due to the nature of the insertion installation method, the installed Smartpipe® will be cased, which includes all road crossings.¹⁷
 - (1) ETNG must require any planned third-party heavy equipment crossings of the *special permit segment* to be approved through an encroachment agreement. All heavy equipment crossings of the *special permit segment* must include the requirement for the crossing to have construction hardwood mats, steel plates, air bridges, or concrete pads over the segment installed prior to traversing the pipeline. ETNG must require a crossing to ensure that excessive live loads are not transmitted into the Smartpipe® by following industry accepted standard API 1102 (latest edition) for calculating the anticipated stresses on the pipe. Smartpipe® that is not inside a steel pipe will be buried as per requirements of ASTM D2774 -2021A.
 - (a) Smartpipe® shall be wrapped in rock shield.
 - (b) Bedding and initial backfill shall be native sand, free of debris >3/4".
 - (c) Final backfill (no less than 24 inches) shall be native dirt free of large debris.
- vi) Process and calculations used to establish MAOP of Smartpipe®, consistent with this special permit and 49 CFR Part 192 (except as waived or modified herein).
- d) <u>Construction Start</u>: At least 14 days before beginning construction, ETNG must notify the Director, PHMSA Central Region, of the date, time, and location of pipeline installation and provide opportunity for the Director, PHMSA Central Region, to witness the installation.
- e) <u>Material Records</u>: ETNG must provide records showing manufacturer personnel and a Quality Assurance (QA)/Quality Control (QC) inspector were onsite conducting inspections during installation of all connections, flanges, and the laying of pipe to ensure that proper

¹⁷ ETNG anticipates the largest load that the Smartpipe[®] and end fitting enclosure would experience will be from a mowing tractor.

technical evaluation of installation procedures was conducted. Mechanical and chemical property test reports of all pipe must be maintained by ETNG for the operational life of the pipeline.

- f) <u>Pipe Installation Records</u>: ETNG must provide an installation report detailing any Construction or QA/QC issues that arose during installation that may have compromised the integrity of the pipe and document how such issues were addressed to maintain the Smartpipe® integrity, including but not limited to:
 - i) Material Damage material loss or damage that will result in repair or replacement;
 - ii) Any visual cuts of the helical reinforcement fiber bundles shall be cause for inspection and replacement;
 - iii) Bending minimum pipe bending radius during installation and operation will be a 20diameter bend radius; and
 - iv) Environmental Effects temperature, moisture, freezing, or soil.
- g) If at any time ETNG becomes aware of a threat to the integrity of the *special permit segment* pipe that poses a risk to the public, or a failure risk, ETNG must notify the Director, PHMSA Central Region, immediately. Concurrent with such notification, ETNG must outline the potential mitigative and integrity measures that could be used to address the threat or risk, including replacement with steel line pipe currently approved by 49 CFR Part 192.
- h) ETNG must notify the Director, PHMSA Central Region, within five (5) days if:
 - i) Repairs and modifications are required or made to the Smartpipe®, including end fittings;
 - ii) The *special permit segment* is at any time damaged or hit; or
 - iii) The pipe or end fitting manufacturer issues a product recall, or materially modifies the product defect specification in response to safety concerns. In the event of a product recall or material defect pertaining to the Smartpipe® products used in the *special permit segment*, ETNG will notify the Director, PHMSA Central Region, within five (5) days of becoming aware of the recall or material defect.

i) **Post-Construction Review with PHMSA**:

 i) ETNG must conduct a post-construction special permit review with the Director, PHMSA Central Region. The purpose of such review is to review the documentation of ETNG's compliance with all construction-related special permit conditions and have been incorporated into their O&M Procedures. ETNG must contact the Director, PHMSA Central Region, within 14 days before completion of construction of the pipeline. The review must take place after construction has been completed but before operation commences, unless otherwise approved by the Director, PHMSA Central Region.

- ii) ETNG must complete this review prior to submitting to PHMSA the certification required in Condition 14 - Certification.
- j) <u>Annual Review with PHMSA</u>: ETNG must conduct a one (1) year O&M review with PHMSA and annually thereafter, not to exceed 15 months. The review must be scheduled each calendar year by ETNG with the Director, PHMSA Central Region, after pipeline operations (in-service) begin in the *special permit segment*.

12) Condition 12 - Gas Quality

- a) ETNG must develop and implement a program to monitor and mitigate the presence of deleterious gas stream constituents through the usage of continuous monitoring equipment, such as chromatographs, for gas sampling.
- b) ETNG's Supply Transmission System must maintain a tariff with gas quality requirements for shippers to meet through the *special permit segment*. These requirements are as follows.¹⁸
 - i) All gas must contain no more than twenty grains of total sulfur (S), nor more than threetenths (0.3) grain of hydrogen sulfide (H₂S) per one hundred cubic feet;
 - ii) All gas must contain no more than two-tenths of one percent (0.2 of 1%) by volume of oxygen (O₂);
 - iii) All gas must contain no more than four percent (4%) by volume of a combined total of carbon dioxide (CO₂) and nitrogen (N₂) components; provided, however, that the total carbon dioxide (CO₂) content must not exceed two percent (2%) by volume;
 - iv) All gas must have a temperature of not more than one hundred twenty degrees Fahrenheit; and
 - v) All gas must have been dehydrated by ETNG for removal of water in a vapor state, and in no event, contain more than seven (7) pounds of water vapor (H²O) per million cubic feet.
- c) This gas composition requirement must be within the specification for the Smartpipe® material being used for the *special permit segment*.

¹⁸ ETNG's Supply Transmission System is a Federal Energy Regulatory Commission (FERC) regulated pipeline system. ETNG is required to maintain a tariff with gas quality requirements for shippers to meet.

- d) ETNG must actively monitor the gas entering its system to ensure the product being transported meets this gas quality standard. ETNG must monitor the gas quality passing through this *special permit segment* and the gas composition must be analyzed on a semiannual basis.
- e) If the gas composition has been found to be out of specification the gas supply must be shut off per ETNG O&M Procedures.
- f) If it is determined that the commodity transported in this pipeline *special permit segment* is not compatible with, and proves detrimental to, the pipe material, PHMSA reserves the right, as a condition of this waiver, to curtail or discontinue the use of this pipe material.

13) Condition 13 - Annual Reporting

Annually, following the grant of this special permit, ETNG must make available the following to the Director, PHMSA Central Region:

- a) The number of new residences, other structures intended for human occupancy and public gathering areas built within 220 yards of the pipeline centerline and along the *special permit segment*.
- b) Any new integrity threats identified during the previous year and the results of any excavations or other integrity assessments performed during the previous year in the *special permit segment* including any encroachments from right-of-way patrols, gas leakage patrols, or other call-outs, and any gas leakage from these activities or from SCADA monitoring or annulus monitoring pressures greater than 60 psig.
- c) Any reportable incident, any leak normally indicated on the DOT Annual Report, and all repairs on the pipeline that occurred during the previous year in the *special permit segment*.
- d) Any on-going damage prevention initiatives affecting the *special permit segment* and a discussion of the success of the initiatives.
- e) Any mergers, acquisitions, transfer of assets, or other events affecting the regulatory responsibility of the company operating the pipeline.
- f) ETNG must identify and document any potential threats, and how they will be mitigated. If a threat was identified in a past annual report, how the threat was mitigated must be documented.
- g) Annual reports must be received by PHMSA by the last day of the month in which the special permit is dated. For example, the annual report for a special permit dated September 15, 2023,

must be received by PHMSA no later than September 30, each year beginning in 2024. Annual reports must be placed on the special permit docket in <u>www.regulations.gov</u>.

14) Condition 14 - Certification

A senior executive officer of ETNG, vice president or higher, must certify in writing the following:

- a) ETNG pipeline meets the conditions described in this special permit and 49 CFR Part 192 (except as waived or modified herein) for the *special permit segment*.
- b) ETNG has maintained the following records for the *special permit segment* and included these requirements in ETNG's O&M Procedures:
 - Documents (material test reports) certifying that the pipe in the *special permit segment* meets the requirements of API 15S, Second Edition and all related material standards in this special permit and 49 CFR Part 192 (except as waived or modified herein).
 - ii) Documentation of compliance with all conditions of this special permit must be retained for the applicable life of this special permit for the referenced *special permit segment*.
- c) That all procedures and specifications for the ETNG pipeline have been updated to include all additional construction, and O&M requirements of this special permit and 49 CFR Part 192 (except as waived or modified herein) applicable sections.
- d) That ETNG has reviewed and modified its damage prevention program relative to the ETNG pipeline to include any additional conditions required by the special permit.
- e) ETNG must send the certifications required in Condition 13 (a) through (d) with completion date, compliance documentation summary, and the required senior executive signature and date of signature to the PHMSA Associate Administrator with copies to the Director, PHMSA Central Region; Director, PHMSA Standards and Regulations Division; and Director, PHMSA Engineering and Research Division, within 30 days prior to placing the *special permit segment* into natural gas service.

Limitations:

This special permit is subject to the limitations set forth in 49 CFR 190.341 as well as the following limitations:

1) PHMSA has the sole authority to make all determinations on whether ETNG has complied with the specified conditions of this special permit. Failure to comply with any condition of this

special permit may result in revocation of the permit and require ETNG to comply with the regulatory requirements.

- 2) Any work plans and associated schedules for the Line 3320A-100 *special permit segment* are automatically incorporated into this special permit and are enforceable in the same manner.
- 3) Failure by ETNG to submit the certifications required by **Condition 14 Certification** within the time frames specified may result in revocation of this special permit.
- 4) As provided in 49 CFR 190.341, PHMSA may issue an enforcement action for failure to comply with this special permit. The terms and conditions of any corrective action order, compliance order or other order applicable to a pipeline facility covered by this special permit will take precedence over the terms of this special permit.
- 5) If ETNG sells, merges, transfers, or otherwise disposes of all or part of the assets known as the FM120 Pipeline in the *special permit segment*, ETNG must provide PHMSA with written notice of the change within 30 days of the consummation date. In the event of such transfer, PHMSA reserves the right to revoke, suspend, or modify the special permit if the transfer constitutes a material change in conditions or circumstances underlying the permit.
- 6) PHMSA grants this special permit to limit it to a term of no more than five (5) years from the date of issuance. If ETNG elects to seek renewal of this special permit, ETNG must submit its renewal request at least 180 days prior to expiration of the 5-year period to the PHMSA Associate Administrator for Pipeline Safety with copies to the Deputy Associate Administrator, PHMSA Field Operations; Deputy Associate Administrator, PHMSA Policy and Programs; Director, PHMSA Central Region; Director, PHMSA Standards and Rulemaking Division; and Director, PHMSA Engineering and Research Division. All requests for a renewal must include a summary report in accordance with the requirements in Condition 13 Annual Report and must demonstrate that the special permit is still consistent with pipeline safety. PHMSA may seek additional information from ETNG prior to granting any request for special permit renewal.

AUTHORITY: 49 U.S.C. 60118 (c)(1) and 49 CFR 1.97.

Issued in Washington, DC on March 31, 2023.

Alan K. Mayberry, Associate Administrator for Pipeline Safety

PHMSA-2022-0167 – East Tennessee Natural Gas, LLC Special Permit – Composite Pipe – Virginia



Attachment A – Special Permit Segment 1

Table 2 – Valves and Lateral Locations with Isolations Methods						
Mile Post (MP)/ Stationing	Туре	Valve / Lateral Name	Nominal Diameter (inches)	Valve Automation Methodology	Required Valve Automation Methodology for Special Permit	
MP 0.0 New Lateral	Ball Valve	Line 3320A-100/New Smartpipe® Special Permit Segment	8.625	Remote Control Valve - RCV	Remote Control Valve - RCV	

- <u>Notes</u>: 1) Any isolation valve that is not an RCV must be blinded or closed. Isolation valve(s) shown as CLOSED, when opened, must be manned by ETNG personnel. **Condition 9- Mainline Valve Monitoring and Remote Control for Ruptures** is applicable to all blowdown valves, crossover valves, valve spacing, and lateral tie-ins that can feed gas into the rupture isolation segment.
 - 2) An isolation valve is required at MP 0.0 for Line 3320A-100. Since there are no gas inputs downstream of MP 0.0 to MP 0.64 (SS 34+03) an isolation valve is not required at approximate MP 0.64.

Final Page of the Special Permit with Conditions