TENNESSEE PUBLIC UTILITY COMMISSION

Andrew Jackson State Office Building
502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243
Telephone (615) 741-2904

March 27, 2018

MEMORANDUM

TO: **Chairman David Jones**
Vice Chairman Robin Morrison
Commissioner Herbert H. Hilliard

FROM: **Ryan McGehee for Party Staff, Gas Pipeline Safety Division**

SUBJECT: ***In re Show Cause Proceeding Against Chattanooga Gas Company for Violations of the TPUC Gas Pipeline Safety Rules, applicable federal safety regulations and law.*** **TPUC Docket 18-00032**

AGENDA: **April 9, 2018**

On behalf of the designated Party Staff of the Gas Pipeline Safety Division ("GPSD") of the Tennessee Public Utility Commission ("Commission"), Party Staff requests that a docket be opened and a Hearing Officer be appointed to determine whether a Show-Cause proceeding should be initiated against the Chattanooga Gas Company ("CGC", "Company") for violations of gas pipeline safety rules and regulations.

The GPSD is responsible for enforcing federal pipeline safety standards in Tennessee pursuant to the Commission's jurisdiction under Tenn. Code Ann. § 65-28-106(b).

Following an inspection by GPSD on September 18-22, 2017, Inspection Report 17-130 was issued by GPSD to the Company citing violations of state and federal pipeline safety standards, including a failure to comply with 49 CFR 192.285 with respect to qualifying and

requalification of personnel conducting fusion of couplings and tap tees on natural gas pipelines through destructive testing. A copy of the Inspection Report is attached. The Company was assessed a civil penalty. The Company has contested the violations.

Pursuant to Tenn. Rules & Regs 1220-4-5-.47(6)(a) and (b), the Company was provided with the opportunity to respond and to meet with the Director of GPSD to resolve the violations in an informal meeting. An informal conference was held on January 3, 2018, between representatives of the Company and the Director of GPSD. The conference and subsequent discussions have not resulted in a resolution or settlement of the violations.

Pursuant to Tenn. Rules & Regs 1220-4-5-.47(7)(b) and (8)(a)(2), the Director of GPSD has referred the inspection report and violations to the Commission's Legal Division for enforcement through a show-cause proceeding. The Legal Division has assigned an attorney for the Party Staff that is appropriately walled off from those serving in an advisory role. In the event this matter goes forward, the attorney for the Party Staff intends to submit a petition to the Hearing Officer seeking a show-cause order and a hearing before the Commission.

cc: Commissioner Kenneth C. Hill, Commissioner Keith Jordan, Executive Director Earl Taylor and Division Directors

TENNESSEE PUBLIC UTILITY COMMISSION

502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243

November 2, 2017

Via Federal Express

Mr. Wendell Dallas
Vice President of Operations
Chattanooga Gas Company
10 Peachtree Place NE
Atlanta, GA 30309

Re: GPSD Safety Inspection Evaluation Number 17-130

Dear Mr. Dallas:

The Tennessee Public Utility Commission (TPUC) Gas Pipeline Safety Division (GPSD) conducted an annual safety inspection of the Chattanooga Gas Company on September 18-22, 2017. The findings of the inspection are provided in the attached GPSD Safety Inspection Evaluation Report number 17-130. During the annual inspection, Chattanooga Gas was determined to have failed to meet federal and State of Tennessee regulations related to operator qualification of personnel performing fusion of couplings and tap tees on the natural gas pipeline. Based on these findings, Chattanooga Gas is cited 18 violations.

The violations include failure to correctly include the federal and state requirements in the Chattanooga Gas Operation and Maintenance (O & M) Manual to indicate that Chattanooga Gas was to qualify personnel and contractors to conduct operator qualification consistent with the requirements of 49 CFR 192.285(a)(2) and 192.285(b). In fact, it appears that Chattanooga Gas was made aware of the federal requirements for these regulations in approximately 2012 by Florida PUC but limited their application such that they would not include those for the State of Tennessee. The Chattanooga Gas O & M manual was modified at that time to require that qualification of persons to make heat fusion (including electrofusion) joints for plastic pipe requires that each person make a specimen joint which passes a visual inspection and destructive test. However, the manual stated that these federal requirements would only be met by Chattanooga Gas pipeline in the State of Florida.

Chattanooga Gas personnel responsible for conducting the operator qualification of personnel for electrofusion of couplings and tap tees "certified" that personnel were considered qualified to conduct these activities on the pipeline in Chattanooga without actually performing fusion on pipe, without visually inspecting the completed fuse and without performing the required destructive tests on each fuse. Therefore, the operator qualification program does not meet the requirements for both a written and performance test (including visual and destructive testing) to be conducted for this covered task. Personnel were then deemed qualified by Chattanooga Gas' representative and allowed to perform these tasks on the gas pipeline system.

This process brings into question the validity of the entire operator qualification program, the capability and competence of the persons responsible to qualify personnel, and the potential impacts to the integrity of the pipeline on which these covered tasks were performed by personnel not qualified according to federal and State of Tennessee regulations. **TO ADDRESS THIS ISSUE, CHATTANOOGA GAS IS BEING REQUIRED TO IMMEDIATELY DISQUALIFY ALL PERSONNEL AND CONTRACTORS THAT HAVE NOT MET THESE REQUIREMENTS AND**

APPROPRIATELY QUALIFY THEM ACCORDING TO FEDERAL AND STATE REGULATIONS. ONLY PERSONNEL QUALIFIED UNDER AN OPERATOR QUALIFICATION PROGRAM THAT MEETS FEDERAL REQUIREMENTS FOR CONDUCTING ELECTROFUSION ON PIPELINE SHOULD BE PERFORMING THIS COVERED TASK ON THE PIPELINE.

Chattanooga Gas is being cited 18 violations. These violations address failure to prepare and implement an O & M manual that meets the minimum federal safety guidelines, failure to adequately qualify personnel, failure of persons responsible for qualifying field personnel to effectively implement the operator qualification program, failure of adequate oversight of personnel and inspection of personnel performance of these tasks as they are performed on the pipeline system, and failure to consider potential implications of integrity of the pipeline where these personnel were allowed to perform these tasks for which they were not qualified.

Due to the nature of these violations and the fact that they demonstrate a lack of commitment to safe operation and maintenance of the Chattanooga gas pipeline and present a potential public safety risk, the GPSD is also assessing civil penalties related to these violations. These federal requirements have been promulgated for several years. Since Chattanooga Gas documented knowledge of these requirements by modifying their O & M manual in 2012 to explicitly indicate that they would apply these requirements in Florida only, we are using a timeframe of noncompliance of five (5) years for purposes of assessing civil penalties. The basis for the cited violations and the assessed civil penalty is outlined in the attached GPSD Safety Inspection Evaluation report and the civil penalty schedule. The total assessed civil penalty for 14 of the violations is $2,017,083.

A civil penalty was not assessed for the other four (4) violations cited, which include failure to consider implications of safety risks to the pipeline system resulting from several years where non-qualified personnel have been allowed to fuse couplings and tap tees on the system. However, Chattanooga Gas is being required to retrieve and review all records of installation of couplings and tees on the system for the past ten (10) years, determine the persons responsible for installation and inspection, determine the locations of these installations, evaluate operating and maintenance records related to performance of these couplings and tees in the system, include information into the integrity management program to evaluate potential risks to the system and determine and implement appropriate measures to address and/or monitor these locations in the system.

Under Chapter 1220-4-.5-.47, Chattanooga Gas has the opportunity to contest and/or seek compromise of the violations and civil penalty. Please complete the attached forms and return them within 30 days. Please contact me to request an informal conference to address these violations and discuss an appropriate basis for compromise related to the civil penalty.

Sincerely,

Annette S. Ponds, PE
Director, Gas Pipeline Safety Division

Enclosures

Copy: Michelle Wisz, Chattanooga Gas Operations Supervisor
Ryan McGehee, Tennessee Public Utility Commission Counsel

Notice!! This form requires a response within 30 days of receipt!!

Tennessee Public Utility Commission
Gas Pipeline Safety Division

Written Notice of Civil Penalty Assessment Response Form

Operator: Chattanooga Gas Company (Southern Company) Safety Inspection Evaluation #17-130

In determining the civil penalty for each violation, state statutes Tennessee Code Annotated, Section 65-28-105, were considered.

"(a) Any person who violates any provision of §§ 65-28-104 – 65-28-113, or of any regulation issued under such sections, is subject to a civil penalty not to exceed ten thousand dollars ($10,000) for each such violation for each day that such violation persists; except that the maximum civil penalty shall not exceed five hundred thousand dollars ($500,000) for any continuing series of violations.

(b) Any civil penalty may be compromised by the authority. In determining the amount of such penalty, or the amount agreed upon in compromise, the appropriateness of such penalty to the size of the business of the person charged, the gravity of the violation, and the good faith of the person charged in attempting to achieve compliance, after notification of a violation, shall be considered. The amount of such penalty, when finally determined, or the amount agreed upon in compromise, shall be paid within thirty (30) days after the determination to the authority, to be used for the purposes of §§ 65-28-104 – 65-28-113; and, if not paid within such time, may be recovered in a civil action brought by the authority in the chancery court of any county in which a violation exists [Acts 1970, ch. 558, § 6; T.C.A., § 65-2809; Acts 1991, ch. 439, § 2; 1995, ch. 305, § 36.]"

In assessing this amount for each violation, the Commission took into consideration the nature of the violation, notices you have received from the Federal Office of Pipeline Safety and Tennessee Public Utility Commission and informational mailings concerning compliance with pipeline safety rules and regulations. A penalty amount up to a maximum of $10,000 per violation was used in determining the civil penalty in acceptance with TCA § 65-28-104. The penalty amount was multiplied by the number of days the violation was outstanding times the size of the natural gas distribution system, and divided by the public safety factor.

_____ Accept the finding of probable noncompliance(s) and submit a check in the amount of the total civil penalty assessed, or

_____ Contest or Seek Compromise and request an informal conference with the Gas Pipeline Safety Division director for discussion.

_____ _____
Signature Date

_____
Please Print or Type Your Name

A stamped envelope is provided for return to:

Tennessee Public Utility Commission
Attention: Gas Pipeline Safety Division
Andrew Jackson State Office Building
502 Deaderick Street, 4th Floor
Nashville, TN 37243

TPUC GPSD 9/13

CIVIL PENALTY SCHEDULE

In determining the civil penalty for each violation, the following state and federal statutes were considered, Tennessee Code Annotated, Section 65-28-108

"(a) Any person who violates any provision of §§ 65-28-104 -- 65-28-111, or of any regulation issued under such sections, is subject to a civil penalty not to exceed ten thousand dollars ($10,000) for each such violation for each day that such violation persists, except that the maximum civil penalty shall not exceed five hundred thousand dollars ($500,000) for any continuing series of violations.

(b) Any civil penalty may be compromised by the authority. In determining the amount of such penalty, or the amount agreed upon in compromise, the appropriateness of such penalty to the size of the business of the person charged, the gravity of the violation, and the good faith of the person charged in attempting to achieve compliance, after notification of a violation, shall be considered. The amount of such penalty, when finally determined, or the amount agreed upon in compromise, shall be paid within thirty (30) days after the determination to the authority, to be used for the purposes of §§ 65-28- 104 -- 65-28-111; and, if not paid within such time, may be recovered in a civil action brought by the authority in the chancery court of any county in which a violation exists.[Acts 1970, ch. 558, § 6; T.C.A., § 65-2809; Acts 1991, ch. 439, § 2; 1995, ch. 305, § 36.]"

The Pipeline Safety Act (Public Law 90-481; 49 U.S.C. § 1671 et seq.) addresses the federal statute pertaining to violations of the Minimum Federal Safety Standards, Section 60122 states:

"(a) GENERAL PENALTIES.

(1) A person who the Secretary of Transportation decides, after written notice and an opportunity for a hearing, has violated Section 60114(c) or 60118(a) of this title or a regulation prescribed or order issued under this chapter is liable to the United States Government for a civil penalty of not more than $200,000 for each violation. A separate violation occurs for each day the violation continues. The maximum civil penalty under this paragraph for a related series of violations is $2,000,000.

(2) A person violating a standard or order under Section 60103 or 60111 of this title is liable to the Government for a civil penalty of not more than $2,000,000 for each violation. A penalty under this paragraph may be imposed in addition to penalties imposed under paragraph (1) of this subsection.

(b) PENALTY CONSIDERATIONS.

In determining the amount of a civil penalty under this section, the Secretary shall consider –

(1) the nature, circumstances, and gravity of the violation;
(2) with respect to the violator, the degree of culpability, any history of prior violations, the ability to pay, and any effect on ability to continue doing business;
(3) good faith in attempting to comply; and,
(4) other matters that justice requires.

(c) COLLECTION AND COMPROMISE.

(1) The Secretary may request the Attorney General to bring a civil action in an appropriate district court of the United States to collect a civil penalty imposed under this section.
(2) The Secretary may compromise the amount of a civil penalty imposed under this section before referral to the Attorney General.

(d) SETOFF.

The Government may deduct the amount of a civil penalty imposed or compromised under this section from amounts it owes the person liable for the penalty.

(e) DEPOSIT IN TREASURY.

Amounts collected under this section shall be deposited in the Treasury as miscellaneous receipts.

(f) PROHIBITION ON MULTIPLE PENALTIES FOR SAME ACT.

Separate penalties for violating a regulation prescribed under this chapter and for violating an order under Section 60112 or 60118(b) of this title may not be imposed under this chapter if both violations are based on the same act."

In assessing the amount for the violation, we took into consideration the nature of the violation, the notices you have received from the Federal Office of Pipeline Safety and Tennessee Public Utility Commission in an Alert Notice and informational mailings concerning compliance with pipeline safety rules and regulations. An amount of $10,000 per violation was used in determining the civil penalty in accordance with TCA § 65-28-104. The violation amount was multiplied by the number of days the violation was outstanding times the size of the natural gas distribution system, and divided by the public safety factor. See the formula, public safety factor, length of time violation was outstanding and total amount for each violation listed below. In consideration of our state statute, the total civil penalty assessed is **$2,017,083**

Formula

Civil Penalty Amount = $\frac{\text{Penalty Amount x Number of days x Size of gas system}}{\text{Public safety factor number}}$

Public Safety Factor

Factor Number	Type of Violation
1.00	Priority 1 - Any violation which, if not immediately corrected, could present a hazardous condition to life, property or both.
2.0	Priority 2 - Any violation which needs prompt attention because the failure to correct could result in a potential hazardous condition to life, property or both.
3.0	Priority 3 - Any violation which needs attention because the operator has failed to complete or schedule maintenance activities.

Factor Number	Size of Natural Gas System
.35	1 to 2,000 gas meters
.50	2,001 to 10,000 gas meters
.65	10,001 to 50,000 gas meters
1.0	50,000 or more

Chattanooga Gas Company

November 2, 2017

Violation	Formula	Civil Penalty
192.605	$\frac{\$100 \times 1825 \times 1.0}{3} = \frac{182,500}{3}$	= $ 60,833
192.273(b)*	$\frac{\$500 \times 1825 \times 1.0}{3} = \frac{912,500}{3}$	= $ 304,167
192.273(c)*	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(a)(1)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(a)(2)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(b)(1)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(b)2(iii)(A)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(b)2(iii)(B)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(c)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.285(d)**	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.287	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250
192.805(b)***	$\frac{\$500 \times 1825 \times 1.0}{2} = \frac{912,500}{2}$	= $ 456,250

192.805(c)***	$\frac{\$500 \times 1825 \times 1.0}{2}$	$= \frac{912,500}{2}$	= $ 456,250
192.805(h)***	$\frac{\$500 \times 1825 \times 1.0}{}$	$= \frac{912,500}{}$	= $ 456,250

* continuing series of violations – maximum $500,000 for 192.273
** continuing series of violations – maximum $500,000 for 192.285
*** continuing series of violations – maximum $500,000 for 192.805

TOTAL $ 2,017,083

Notice!! This form requires a response within 30 days of receipt!!

Tennessee Public Utility Commission
Gas Pipeline Safety Division

Written Notice of Formal Violation Response Form

Operator: Chattanooga Gas **Safety Inspection Evaluation #17-130**

You have received a written notice of formal violation ("notice") pursuant to Tenn. Comp. R. & Regs. 1220-4-5-.47. A copy of the notice was mailed along with this form. You **must** respond **within 30** days of receipt of the notice. Please attach any supporting documentation.

Pursuant to Tenn. Comp. R. & Regs. 1220-4-5-.47(6) you may respond in one of the following ways:

____ Accept the finding of probable noncompliance(s) and submit that corrective measures **have achieved** compliance, or

____ Accept the finding of probable noncompliance(s) and provide this agency with a written plan of action outlining the corrective measures that **will be** taken to achieve compliance and when, or

____ **Disagree** with the finding of probable noncompliance(s) and request an informal conference with the Gas Pipeline Safety Division director for discussion.

_____ _____
Signature **Date**

_____
Please Print or Type Your Name

Please attach all supporting documentation and return in the provided stamped envelope to:

Tennessee Public Utility Commission
Attention: Gas Pipeline Safety Division
Andrew Jackson State Office Building
502 Deaderick Street, 4th Floor
Nashville, TN 37243

TENNESSEE PUBLIC UTILITY COMMISSION

502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243

Tennessee Public Utility Commission - Gas Pipeline Safety Division
Safety Inspection Evaluation

Operator: Chattanooga Gas	**Inspection Number:** 17-130
Federal ID Number: 02288	**Inspection Type:** Standard & Protocol 9
Location: Chattanooga, TN	**Inspection Date(s):** September 18-22, 2017
Contacted: Michelle Wisz	**TPUC:** Ted Wilkinson, Shinisha Freeman, Phill Hendricks, Pete Hut, Tim Thompson

Minimum Federal Safety Standards Alleged Violation(s)

Inspection #	Inspection Type	Date(s)	# Cited This Inspection	# Closed This Inspection	# Previously Cited - Still Open	Total # Open
16-053	Standard & Protocol 9	4/18-22 & 5/12-13/16	0	0	0	0
17-130	Standard & Protocol 9	9/18-22/17	18	0	0	18

Item Number: 1 – Violation Cited

Code Requirement: **49 CFR §192.605 Procedural Manual for Operations, Maintenance, and Emergencies**

Description: The sections of the O&M Manual regarding qualification of personnel to perform joining of plastic pipe and fittings by electrofusion (i.e., Division IV, Section 7.1 (p. 1209); Division IV, Section 7.2 (p. 1210); Division IV, Section 7.5 (pp. 1212-1213)) need to be revised to be consistent with code requirements. Currently, the O&M Manual states that visual inspection and destructive testing of a specimen joint for qualification of personnel to make electrofusion joints is only required in the State of Florida. **Per §192.285(a)(2) and §192.285(b), qualification of persons to make heat fusion (including electrofusion) joints for plastic pipe requires that each person make a specimen joint which passes a visual inspection and destructive test. The minimum federal safety standards apply in each state, including the State of Tennessee.**

The repair time specified in the O&M Manual for Grade 2 leaks (Division II, Section 4.6.1; p. 109) needs to be revised to be consistent with the requirements of TPUC Rule 1220-4-5-.44 (i.e., must be scheduled for repair within 12 months, not 15 months; or rechecked during the next annual survey). The section of the O&M Manual regarding atmospheric corrosion control (Division II, Section 8.22; p. 261) should be revised to note that protection from atmospheric corrosion must be provided at all times at pipeline soil-to-air interfaces (per §192.479(c)).

Action Needed: **The operator must revise the operations and maintenance plan as well as all other procedures (Joining by electrofusion) and plans (Operator Qualification) to include these requirements.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure that the O & M requirements to address requirements for operator qualification of personnel performing electrofusion of couplings and tees on the system since at least 2012 has resulted in the assessment of a civil penalty in the amount of $60,833.**

Item Number: 2 – Violation Cited

Code Requirement: **49 CFR §192.273(b)** **General Joining of Materials Other Than by Welding**

Description: **Each joint must be made in accordance with written procedures that have been proven by test or experience to produce strong gastight joints.**

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. **To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test consistent with procedures required by federal and Tennessee gas pipeline safety regulations.** Until such qualification is complete and certified, the individual cannot perform the covered task on the pipeline without direct supervision of someone qualified.

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure that written procedures for qualification of personnel allowed to perform electrofusion on the pipeline system adhere to federal requirements has resulted in assessment of a civil penalty of $304,167.**

Item Number: 3 – Violation Cited

Code Requirement:	**49 CFR §192.273 (c)**	**General Joining of Materials Other Than by Welding**
Description:	Each joint must be inspected to insure compliance with this subpart.	
Action Needed:	The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. Until such qualification is complete and certified, the individual cannot perform the covered task on the pipeline without direct supervision of someone deemed adequately qualified.	
Due Date:	**Prior to personnel conducting fusion on the operator's system.**	
Advisory Notes:	**Failure to ensure personnel actually performed an electrofusion joint for inspection resulted in assessment of a civil penalty of $456,250.**	

Item Number: 4 – Violation Cited

Code Requirement:	**49 CFR §192.285 (a) (1)**	**Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**
Description:	No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by appropriate training or experience in the use of the procedure for heat fusion (including electrofusion joints). Qualification requires that each person make a specimen joint which passes visual inspection and destructive testing (per §192.285(a)(2) and §192.285(b)). Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, annual qualification of personnel for electrofusion joints does not currently include visual inspection and destructive testing of a specimen joint.	
Action Needed:	The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. To be qualified to make electrofusion joints, each person must **make a specimen joint which passes the required visual inspection and destructive test.**	
Due Date:	**Prior to personnel conducting fusion on the operator's system.**	
Advisory Notes:	**Failure to ensure personnel had appropriate training and experience using the procedures resulted in assessment of a civil penalty of $456,250.**	

Item Number: 5 – Violation Cited

Code Requirement: **49 CFR §192.285 (a) (2) Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**

Description: No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in (b) of this section. Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, annual qualification of personnel for electrofusion joints does not currently include visual inspection and destructive testing of a specimen joint.

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. To be qualified to make electrofusion joints, each person must **make a specimen joint which passes the required visual inspection and destructive test.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel made a specimen joint using the procedures that passes inspection resulted in assessment of a civil penalty of $456,250.**

Item Number: 6 – Violation Cited

Code Requirement: **49 CFR §192.285 (b) (1) Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**

Description: No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by appropriate training or experience in the use of the procedure. Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, **annual qualification of personnel for electrofusion joints does not currently include visual inspection and destructive testing of a specimen joint.**

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. To be qualified to make electrofusion joints, each person **must make a specimen joint which must be visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel actually made a specimen joint for visual inspection by qualifying personnel resulted in assessment of a civil penalty of $456,250.**

Item Number: 7 – Violation Cited

Code Requirement: **49 CFR §192.285 (b) (2)(iii)(A) Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**

Description: No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by appropriate training or experience in the use of the procedure. For heat fusion (including electrofusion) joints, qualification requires that each person make a specimen joint which passes visual inspection and destructive testing (per §192.285(a)(2) and §192.285(b)). Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, **annual qualification of personnel for electrofusion joints does not currently include visual inspection and destructive testing of a specimen joint.**

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. **To be qualified to make electrofusion joints, each person must make a specimen joint which is cut into at least 3 individual straps which have passed the required visual inspection to confirm that they do not contain voids or discontinuities on the cut surfaces of the joint area**.

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel actually made a fusion specimen which could be cut into straps for visual inspection resulted in assessment of a civil penalty of $456,250.**

Item Number: 8 – Violation Cited

Code Requirement: **49 CFR §192.285 (b) (2)(iii)(B) Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**

Description: No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by appropriate training or experience in the use of the procedure. For heat fusion (including electrofusion) joints, qualification requires that each person make a specimen joint which passes visual inspection and destructive testing (per §192.285(a)(2) and §192.285(b)). Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual,

annual qualification of personnel for electrofusion joints does not currently include visual inspection and destructive testing of a specimen joint.

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. **To be qualified to make electrofusion joints, each person must make a specimen joint which is cut into 3 individual pieces and deformed by bending, torque or impact, and if failure occurs, it must not initiate in the joint area.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel actually made a fusion specimen that could be cut into straps and destructive testing for failure could be performed resulted in assessment of a civil penalty of $456,250.**

Item Number: 9 – Violation Cited

Code Requirement: **49 CFR §192.285 (c)** **Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**

Description: A person must be **re-qualified** under an applicable procedure, once each calendar year at intervals not exceeding 15 months, or after any production joint is found unacceptable by testing under 192.513.

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. **To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test and be re-qualified annually not to exceed 15 months.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel are qualified under an applicable procedure annually not to exceed 15 months resulted in assessment of a civil penalty of $456,250.**

Item Number: 10 – Violation Cited

Code Requirement: **49 CFR §192.285 (d)** **Plastic Pipe: Qualifying Persons to Make Joints (Electrofusion Joints)**

Description: **Each operator shall establish a method to determine that each person making joints in plastic pipelines in the operator's system is qualified in accordance with this section.**

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. **To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test. In addition, the person being qualified must be deemed qualified by a person demonstrated to be qualified and capable of certifying personnel qualification.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel were qualified according to regulations resulted in assessment of a civil penalty of $456,250.**

Item Number: 11 – Violation Cited

Code Requirement: **49 CFR §192.287 Plastic Pipe: Inspection of Joints (Electrofusion Joints)**

Description: No person may carry out the inspection of joints in plastic pipes unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints required by 192.273(c) and 192.285(b) made under the applicable joining procedure. Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, annual qualification of personnel for electrofusion joints does not currently include visual inspection and destructive testing of a specimen joint. **The operator representative must ensure that persons being qualified meet the requirements to be qualified prior to conducting the covered task.**

Action Needed: **The operator representative must properly qualify all personnel performing a covered task in accordance with code requirements, operator's procedures, and the operator's operator qualification plan and provide documentation. To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test and this must be certified by the operator's operator qualification representative.**

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure the operator representative who was responsible for qualification of personnel to perform electrofusion on the system was certifying personnel according to regulations resulted in assessment of a civil penalty of $456,250.**

Item Number: 12 – Violation Cited

Code Requirement: **49 CFR §192.805 (b) Qualification Program**

Description: Each operator shall have and follow a written qualification program. The program shall include provisions to ensure through evaluation that individuals performing covered tasks are qualified.

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test.

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure the qualification program contained procedures that meet regulations resulted in assessment of a civil penalty of $456,250.**

Item Number: 13 – Violation Cited

Code Requirement: **49 CFR §192.805 (c) Qualification Program**

Description: **No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by appropriate training or experience in the use of the procedure or always performs the covered task under the direct supervision by an individual qualified to perform that task.**

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test. Until such qualification is complete and certified, the individual cannot perform the covered task on the pipeline without direct supervision of someone qualified.

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel qualified under an acceptable operator qualification program perform covered tasks on the pipeline system or are under direct supervision of someone who is qualified to perform the covered task resulted in assessment of a civil penalty of $456,250.**

Item Number: 14 – Violation Cited

Code Requirement: **49 CFR §192.805 (h) Qualification Program**

Description: **After December 16, 2004, provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities.**

Action Needed: The operator must properly qualify all personnel performing a covered task in accordance with code requirements and provide documentation. To be qualified to make electrofusion joints, each person must make a specimen joint which passes the required visual inspection and destructive test. Until such qualification is complete and certified, the individual cannot perform the covered task on the pipeline without direct supervision of someone qualified.

Due Date: **Prior to personnel conducting fusion on the operator's system.**

Advisory Notes: **Failure to ensure personnel performing covered tasks have the knowledge, skills and ability to perform the covered tasks on the pipeline system resulted in assessment of a civil penalty of $456,250.**

Item Number: 15 – Violation Cited

Code Requirement: **49 CFR §192.1007(a) Integrity Management**

Description: **Knowledge. An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information.**

Action Needed: The operator must determine the location of each electrofusion coupling and tee installed on the system in the past 10 years and determine if it was installed by personnel (operator or contractor) who were **operator qualified according to federal and Tennessee regulations and if it was inspected by a qualified inspector.** This information and data must be available for inspection and evaluation. This information must be considered in the integrity management program for the system.

Due Date: **February 28, 2018**

Advisory Notes: **Failure to ensure the cited violation is addressed by the operator by the required timeframe may result in assessment of a civil penalty of $10,000 per day not to exceed $500,000.**

Item Number: 16 – Violation Cited

Code Requirement: **49 CFR §192.1007(b) Integrity Management**

Description: **Identify threats. The operator must consider the following categories of threats to each gas distribution pipeline: corrosion, natural forces, excavation damage, other outside force damage, material or welds, equipment failure, incorrect operations, and other concerns that could threaten the integrity of the pipeline.**

Action Needed: The operator must incorporate any data determined from review of electrofusion installation records (as referenced in Item Number 15) into the integrity management evaluation to assess if this issue presents any potential current or future integrity risk to the pipeline system.

Due Date: **February 28, 2018**

Advisory Notes: **Failure to ensure the cited violation is addressed by the operator by the required timeframe may result in assessment of a civil penalty of $10,000 per day not to exceed $500,000.**

Item Number: 17 – Violation Cited

Code Requirement: **49 CFR §192.1007(c) Integrity Management**

Description: **Evaluate and rank risk. The operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline.**

Action Needed: The operator must review records regarding performance of the fusions at the locations determined from the evaluation to assess a pattern of leaks, failures, etc. This information must be incorporated into the integrity management evaluation to evaluate the potential risks associated with installation of couplings and tap tees by personnel not operator qualified at locations throughout the system.

Due Date: **February 28, 2018**

Advisory Notes: **Failure to ensure the cited violation is addressed by operator in the required timeframe may result in assessment of a civil penalty of $10,000 per day not to exceed $500,000.**

Item Number: 18 – Violation Cited

Code Requirement: **49 CFR §192.1007(d) Integrity Management**

Description:	**Identify and implement measures. Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline.**
Action Needed:	The operator must review records regarding performance of the fusions at the locations determined from the evaluation of the location and status of electrofusion of couplings and tees on the system. This information must be incorporated into the integrity management evaluation to determine any appropriate measures that should be taken to actively address or monitor locations where the couplings and tees were installed.
Due Date:	**February 28, 2018**
Advisory Notes:	**Failure to ensure the cited violation is addressed in the required timeframe may result in assessment of a civil penalty of $10,000 per day not to exceed $500,000.**

Investigation Comments

In addition to the deficiencies noted above, there were a few observations which should be addressed which will be reviewed during the next scheduled inspection:

Line Markers

During the field inspection, several line markers were observed to contain the wrong area code (i.e, 615 rather than 423). A few of them were also observed to contain the wrong operator name (i.e., Cleveland Gas rather than Chattanooga Gas). (Refer to field logs for locations.) These deficiencies need to be corrected soon. The operator should also conduct a survey of the other line markers in its system and ensure they are compliant with §192.707(d).

Plastic Pipe Joining Procedures

The operator has adopted manufacturers' pre-qualified procedures for making heat fusion (e.g., butt fusion, electrofusion) joints. It also follows manufacturers' instructions for use of mechanical fittings for joining of plastic pipe. The operator is reminded that complete copies of the manufacturers' pre-qualified procedures and instructions should be readily available. A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints (per §192.283(c)).

External Corrosion Control – Pipe-to-Soil Potentials Surveys

During the field inspection, pipe-to-soil potentials measurements at two (2) locations (The Village @ Garden Plaza regulator station; Collegetown Mobile Home Park regulator station) were non-compliant (i.e., less negative than -0.85 V). The operator should investigate these locations and take

appropriate remedial action soon.

Atmospheric Corrosion Control

During the field inspection, it was observed that the riser at 9420 E. Brainerd Road needs to be painted or wrapped at the soil-to-air interface. Protection from atmospheric corrosion must be provided at all times at pipeline soil-to-air interfaces (per §192.479(c)).

Drug and Alcohol Testing

One of the operator's contractors (QM3 Utility Services, Inc.) did not quite satisfy the 25% minimum random drug testing rate in calendar year 2016. (Its random test rate was 24.4%.) **The operator must confirm that all contractors meet this requirement.**

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-21/2017
INSPECTOR: Pete Hut

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

	Location	P/S Potential Reading (-)	Atmospheric Corrosion
1	Daisy Dallas @ OK Corral TP	2.19	
2	Daisy Dallas @ Walnut TP	1.61	
3	Daisy Dallas @ Valley Peak TP	1.29	
4	442 Valley Peak	1.32	none
5	Hopler Rd @ Colonial Pipeline TP	1.48	
6	Hopler Rd @ Hunterwood	1.47	
7	HarrisvilleOotewah	2.50	
8	@colnial pipeline1	1.52	
9	7492 Twin Brook Dr	1.58	none
10	Sandifier @ Walker Rd TP	1.19	
11	Sandifier @ Rainbow Creek TP	1.18	
12	Jenkins @ Sandifier TP	1.21	
13	2324 Jenkins	1.18	slight
14	3905 Hwy 58	1.12	none
15	4121 Harbor Hills	1.16	none
16	4904 Bel Harbor	1.08	none
17	3917 Fuslino	1.06	slight
18	6506 Mill St	1.23	slight
19	VillageWood TP	1.33	none
20	9109 Village Wood	1.28	none
21	Hamradingtonill @ Bradington TP	1.77	
22	Hamill @ RR E	1.72	
23	W	1.65	
24	casing	0.44	
25			

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-21/2017
INSPECTOR: Pete Hut

MONITORING RECTIFIERS AND INTERFERENCE BONDS - 2017

					Instant (-)	
	Location	Item	Volts	Amps	ON	Off
1	Sanctury Rd	Rectifier	73.2	8.6	4.20	1.60
2	Branard @ Torbett	Rectifier	6.9	3.3	2.80	1.60
3	Wilson Dr	Rectifier	11.5	4.5	2.80	1.20
4	Lil Debbie	Rectifier	12.5	8.1	5.70	1.70
5	38th ave	Rectifier	12.3	8.1	2.47	1.50
6	Spring Rd	Rectifier	10.2	1.1	4.70	1.50
7	Soddy Daisy	Rectifier	17	2.5	7.30	2.05
8	Hunter Dr	Rectifier	3.76	0.62	2.44	1.40
9	n Hawthorne	Rectifier	15	1.3	2.90	1.50
10	Baap	Rectifier	38	11.6	4.60	1.70

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-21/2017
INSPECTOR: Pete Hut

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

	Location	P/S(-) Potential Reading	Atmospheric Corrosion
1	State Line Rd TP	1.69	
2	Stanley Hieghts Baptist Church	1.26	none
3	5364 Clemons	1.20	none
4	150 Tombres TP	1.69	
5	38th street @ RR TP	2.20	
6	csg 4 Mohms	1.51	
7	1906 S. Orchard riser	1.31	
8	900 Orchard TP	1.40	
9	Lise @ Orchard TP n	1.35	
10	TP s	1.05	
11	1905 Blackford TP	1.71	
12	Parley @ McCord TP	1.31	
13	Slolar @ Ruby TP	1.29	
14	Dayton Blvd @ Wendys TP	1.40	
15	Dayton Blvd @ Matress Outlet TP	1.39	
16	Dayton Blvd @ Signalview TP	1.24	
17	201 Martin St TP	1.24	
18	Dayton @ Gerryland TP	1.34	
19	Bridge Crossing	1.24	none
20	4904 Hunter	1.07	none
21	500 Paren	1.05	
22	507 Parson	1.13	
23	409 Carmay	1.03	
24	Gidd @ Hunter	1.04	
25			

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-21/2017
INSPECTOR: Pete Hut

MONITORING RECTIFIERS AND INTERFERENCE BONDS - 2017

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TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-21/2017
INSPECTOR: Pete Hut

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

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12	Jenkins @ Sandifier TP	1.21	
13	2324 Jenkins	1.18	slight
14	3905 Hwy 58	1.12	none
15	4121 Harbor Hills	1.16	none
16	4904 Bel Harbor	1.08	none
17	3917 Fuslino	1.06	slight
18	6506 Mill St	1.23	slight
19	VillageWood TP	1.33	none
20	9109 Village Wood	1.28	none
21	Hamradingtonill @ Bradington TP	1.77	
22	Hamill @ RR E	1.72	
23	W	1.65	
24	casing	0.44	
25			

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas

TOWN: Cleveland, Tennessee

DATE: September 18-22, 2017

INSPECTOR: Phill Hendricks

ATMOSPHERIC CORROSION OF ABOVE GROUND PIPING - 2017

	Location	Atmospheric Corrosion	
1	Bojangles King St SE	NONE	AR - Anodeless Riser
2	1208 Smith Dr SW	NONE	
3	140 Ingman St	NONE	AR
4	185 Ingman St	NONE	AR
5	114 Barker LN NW	NONE	AR
6	113 Barker LN NW	NONE	AR
7	107 Mouse Creek Rd NW	NONE	AR
8	5275 Mouse Creek Rd NW	NONE	AR
9	Homewood Suites Mariott	NONE	AR
10	260 NE East St	NONE	
11	2390 Spring Creek Cir	NONE	
12	2466 Valley Hills Trail	NONE	
13	4130 Forest View Dr	NONE	
14	225 Keith St	NONE	AR
15	350 2nd St SW (locked off)	NONE	AR
16	237 2nd St SW (locked off)	NONE	AR
17	460 Ocoee St S	NONE	AR
18	240 1st St SW	NONE	AR
19	165 Worth St SW	NONE	AR
20	185 Inmant St W	NONE	AR
21	420 Inmant St	NONE	AR
22	451 1st St NW (locked off)	NONE	AR
23	530 Harle AVE NW	NONE	
24	119 Powhatan Dr	NONE	
25	159 Powhatan Dr	NONE	

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Cleveland, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

ATMOSPHERIC CORROSION OF ABOVE GROUND PIPING - 2017

	Location	Atmospheric Corrosion		
1	#5,6, 7 891 Keith St (3 meter Bank)	NONE	AR - Anodeless Riser	
2	#1,2,3 891 Keith St (3 meter Bank)	NONE	AR - Anodeless Riser	
3	1014 Keith St	NONE	AR - Anodeless Riser	
4	1007 Keith St (4 Meter Bank)	NONE	AR - Anodeless Riser	
5	1005 Keith St	NONE	AR - Anodeless Riser	
6	1003 Gary St NW	NONE	AR - Anodeless Riser	
7	917 Gary St NW	NONE	AR - Anodeless Riser	
8	913 Keith St	NONE	AR - Anodeless Riser	
9	911 Keith St	NONE	AR - Anodeless Riser	
10	904 Keith St	NONE	AR - Anodeless Riser	
11	918 Willow St	NONE	AR - Anodeless Riser	
12	916 Willow St	NONE	AR - Anodeless Riser	
13	1701 Keith St	NONE	AR - Anodeless Riser	
14	1905 Keith St	NONE	AR - Anodeless Riser	
15	1995 Keith St (2 meters on 5 meter bank)	NONE	AR - Anodeless Riser	
16	1999 Keith St (1 meter on 2 meter bank)	NONE	AR - Anodeless Riser	
17	143-145 Stuart Rd NE	NONE		
18	163-165 Stuart Rd NE	NONE		
19				
20				

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Cleveland, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

	Location	P/S Potential Reading	Atmospheric Corrosion	
1	Chart Location @ Toyota & I-75	-1.42		Anode System
2	Toyota @ Village N Blvd	-1.36	NONE	Anode System
3	Test Station Harriman & HWY 64	-1.41		Anode System
4	Plantation Pipeline Crossing/Test Station	-1.46	NONE	Anode System
5	2315 S Lee HWY (RISER ONLY)	-1.40	NONE	Anode System
6	Peyton's Southeastern Kyle Lane Industrial Meter	-1.28	NONE	Anode System
7	414 Kyle Lane Electric Motor Sales	-1.34	NONE	Anode System
8	RR CASING @ Life Bridges Memorial Dr	-1.278, -0.706	NONE	Anode System
9	2812 SE Woodland Dr (RISER ONLY)	-1.03	Slight Rust Regulator	Anode System
10	2839 SE Carroll Ave (RISER ONLY)	-0.98	NONE	Anode System
11	516 Linda Dr SE	-1.07	NONE	Anode System
12	510 Linda Dr SE (LOCKED OFF)	-1.08	NONE	Anode System
13	Cleveland Cowboy Church	-1.33	NONE	Anode System
14	634SE Cedar Dr (LOCKED OFF)	-1.07	NONE	Anode System
15	1055 King St SE O'Rielly Auto Parts	-0.92	Chipped Paint	Anode System
16	2500 Permiter Dr SE (Industrial Set)	-1.10	NONE	Anode System
17	Bradley Co. Correctional Facility (2 RELIEFS)	-1.11	NONE	Anode System
18	2026 Blythe Ave SE	-1.13	NONE	Anode System
19	PASCO 2019 King Howard Ave	-1.06	NONE	Anode System
20	Test Station 20th St SE & RR (CASING)	-1.040, -0.5		Anode System
21	1001 Smith Dr SW	-0.97	NONE	Anode System
22	95 Church St SE	-0.99	NONE	Anode System
23	122 Church St SE	-1.10	NONE	Anode System
24	180 1st St NE	-1.09	NONE	Anode System
25				

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Cleveland, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

	Location	P/S Potential Reading	Atmospheric Corrosion	
1	150 1st St NE	-1.44	NONE	Anode System
2	190 2nd St (3 meter bank)	-1.27	NONE	Anode System
3	Test Station @ Gate Station	-2.95		Rectified
4	Test Station @ Davis Rd & Walker Valley	-2.70	Cleveland Gas Sign	Rectified
5	Industrial Meter 591 N Lee Hwy (3 meters)	-2.03	NONE	Rectified
6	319 Dalecrest Dr NW	-1.66	NONE	Rectified
7	Industrial Meter 4405 Michigan Ave NE	-1.66	NONE	Rectified
8	Test Station Cleveland Airport & NE Michigan Av	-1.61	END OF LINE	Anode System
9	Test Station Michigan Ave & Water Dept.	-1.67	END OF LINE	Anode System
10	850 Old Tasso Pl NE	-1.20	NONE	Rectified
11	231 Hillview Dr NW (END OF LINE)	-1.22	NONE	Rectified
12	Regulator Station Barker LN NW	-1.26	NONE	Rectified
13	1210 Robinhood Dr NW	-1.21	NONE	Anode System
14	210 James Asbury Dr NW	-0.97	NONE	Anode System
15	Industrial Meter Red Rood Inn	-0.95	NONE	Anode System
16	1250 Summerfield AVE NW	-1.35	NONE	Isolated Service
17	560 18th St NW	-1.35	NONE	Isolated Service
18	Industrial Meter 2305 Chambliss Ave NW Hospital	-1.35	NONE	Isolated Service
19	SE 9th St & RR test station (CASING)	-0.60		@ Groomingdales
20	SE 9th St & RR test station	-1.20		@ Groomingdales
21	SE 647 4th St	-1.10	NONE	Isolated Service
22	2001 Claywood Dr NW (Riser Only)	-1.10	NONE	Isolated Service
23	4140 Forest View Dr	-1.20	NONE	Isolated Service
24	5350 Freewill Rd (Howell School)	-1.46	NONE	Isolated Service
25	313 Grove Ave NW	-1.74	NONE	Isolated Service

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas

TOWN: Cleveland, Tennessee

DATE: September 18-22, 2017

INSPECTOR: Phill Hendricks

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

	Location	P/S Potential Reading	Atmospheric Corrosion	
1	203 Keith St NW	-1.73	NONE	Isolated Service
2	1301 S Lee HWY NW	-0.95	NONE	Isolated Service
3	1704 Westland Dr SW (locked off)	-1.48	NONE	Isolated Service
4	1701 S Lee HWY (Bank of Meters, 1 Riser)	-1.33	NONE	
5	160 Washington St NW	-1.12	Chipped Wrap top riser	
6	195 Church St	-1.12	NONE	
7	859-867 Keith St (Multi-Industrial Meter)	-1.34	NONE	
8	2487 Keith St Mrs. Weiners	-1.20	NONE	
9	2429 Keith St (9 meter bank)	-1.48	Light Rust Riser	
10	2305 Keith St (Industrial Meter Set)	-1.14	NONE	
11	2223 Keith St (Riser Only)	-1.12	Rust spots on Riser	
12	2229 Keith St (Industrial Meter Set)	-1.21	NONE	
13	2151 Keith St	-1.14	NONE	
14	816 25th St (Industiral Meter 5 banks, 3 meters)	-0.93	NONE	
15	169 Stuart Rd NE	-1.62	NONE	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Cleveland, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

MONITORING RECTIFIERS AND INTERFERENCE BONDS - 2017

					Instant	
	Location	Item	Volts	Amps	ON	Off
1	West View	Rec.	3.98	10.68	-3.97	-1.50
2	Walker Valley	Rec.	61.29	10.14	-6.80	-1.50
3						
4						
5						
6						
7						
8						
9						
10						

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Cleveland and Chattanooga, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

PATROLLING - 2017

	Location	COMMENTS
1	303 Grove Ave NW to Emmit - Cleveland	Markers on both sides
2	Powhatan & Foxfire (Cleveland)	Marker on one side (Homeowner keeps removing sign.
3	Foxfire & Millcreek (Cleveland)	Markers on both sides
4	N Hawthorne @ Grace (Chattanooga)	RR Crossings - Markers on both sides
5	N Hawthorne @ S Chickamagua (Chattanooga)	Marked with Markers across Creek.

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

PATROLLING - 2017

	Location	COMMENTS
1	S Creek Rd @ East Station (Chattanooga)	Marked
2	Old Army Munitions Plant (Chattanooga)	Marked
3	Preston Cir to Shallowford Rd (Chattanooga)	Marked
4	S Chickamagua Creek (Chattanooga)	Marked
5	Worth St Bridge (Cleveland)	BLACK WRAPPED (-1.362)

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, Tennessee
DATE: September 18-22, 2017
INSPECTOR: Phill Hendricks

PATROLLING - 2017

	Location	COMMENTS	
1	Harrison Bridge (Cleveland) (-1.263)	Epoxy and Wax Tape - **marker on one end**	
2	20th St Bridge (Cleveland) (-1.533)	Tough Cote / Fiberglass Shield	
3	Rader Dr (Reference Al Miller Wrestling Center @ Cleveland High School)	Green Cote - Anode protected line down across the City of Cleveland	
4	Mouse Creek Bridge (Cleveland - Reference Pope's Tae Kwon Do -1.503)	2" Wax Tape - **marker on one end**	
5	Marker in front of Light @ Harbor Freight	Wrong # on marker	Hixson Area

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-9/22/17
INSPECTOR:Shinisha Freeman

MONITORING VALVE
MAINTENANCE AND OPERATION - 2017

			Valve Characterization			Operating		
	Area	Location	# Valves	Type	Size	Yes	No	Comments
1	Hixson	Middle Valley Road & Lower Mill	1	ST	2"	✓		EV004
2	Hixson	Old Hixson Pike @ Hixson Pike	1	ST	2"	✓		EV001
3	Hixson	Hixson Pike @ Master Road	1	SY	2"	✓		2.5.1
4	Hixson	Hixson Pike @ Valley Brook Circle E	1	PE	2"	✓		2.9.1
5	Hixson	Hixson Pike @ Valley Brook Circle W	1	PE	2"	✓		2.9.2
6	Hixson	Hixson Pike @ Winbrook Lane	1	PE	2"	✓		2.5.2
7	Hixson	Hixson Pike @ Valley Brook Road E	1	PE	4"	✓		2.5.3
8	Hixson	Hixson Pike @ Brookaire Road	1	PE	2"	✓		2.8.1
9	Hixson	Hixson Pike @ Boy Scout Road	1	PE	4"	✓		2.7.2
10	Soddy Daisy	Hixson Pike @Dallas Hollow Road	1	ST	4"	✓		1.7.1
11	Soddy Daisy	Lakesite Drive@ Old Hixson Pike	1	ST	4"	✓		1.8.4
12	Soddy Daisy	Hixson Pike @ Daisy Dallas	1	ST	6"	✓		1.4.2
13	Soddy Daisy	Fairview Road South of Hidden Harbour	1	ST	2"	✓		2.3.3
14	Red Bank	Dayton Blvd @ Old Dayton Blvd	1	ST	2"	✓		3.7.2
15	Red Bank	Mountain Creek @ Morrison Spring Road	1	ST	2"	✓		4.20.2
16	Red Bank	Dayton Blvd @ Laurel Road	1	PE	2"	✓		4.27.1
17	Red Bank	Dayton Blvd @ Sweetland(Kildare)	1	PE	2"	✓		4.28.3
18	Red Bank	Dayton Blvd @ California	1	PE	2"	✓		4.28.2
19	Red Bank	Culver Street @ E. Lyndon Ave	1	PE	2"	✓		4.26.2
20	Red Bank	E. Euclid Ave@ Dayton Blvd	1	ST	2"	✓		4.24.1
21	Red Bank	Crisman@ Dayton Blvd	1	ST	2"	✓		4.23.1
22	Red Bank	Red Bank Station (Freudenburg Lane) **	1	ST	6"	✓		EV013

*** The following line markers has the 615 contact information**
Crisman @ Dayton, Gadd & Norcross@ Bridge, Cassandra Smith & Hutton Lane, Hidden Harbor Road test point
Old Hixson Pike & Chimney Hills Drive

** There was a leak on the odorization equipment during the inspection. Also it was noted that personnel stated that MTNG had a leak on their odorizer as well that needed to be repaired in the past for over a year. The operator checked the entire Freudenburg Lane Station to make sure that the station was not leaking. The last leak that was called into the operator was May 4, 2017 and the station was checked then and it was noted that there was not leak on the operators station and MTNG was called. Currently Kim does not have a way to make work orders in the system and but she did have notes to show that this leak came in and that it was given to MTNG.

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Cleveland, TN
DATE: 9/18-9/22/17
INSPECTOR:Shinisha Freeman

MONITORING VALVE
MAINTENANCE AND OPERATION - 2017

		Valve Characterization			Operating		
	Location	**# Valves**	**Type**	**Size**	**Yes**	**No**	**Comments**
1	Westland Drive & Lupton Lane	1	ST	4"	✓		
2	Pine Drive @ Blackburn Road	1	ST	4"	✓		
3	Blackburn Road @ Pine Drive	1	ST	4"	✓		
4	Cedar Drive & Blackburn Road	1	ST	2"	✓		
5	Pine Drive @ Carroll Drive	1	ST	2"	✓		
6	Church Street SE of 14th Street SE	1	ST	2"	✓		
7	Church Street@ 14 St SE	1	ST	2"	✓		
8	Worth & 3rd Street	1	ST	2"	✓		
9	Ocoee@ 17th Street	1	PE	2"	✓		
10	Ocoee@ 8th Street	1	PE	2"	✓		
11	Harle Ave at 1st Street NW*	1	ST	2"	✓		
12	S. Lee Hwy @ RR	1	ST	2"	✓		
13	**9th Street SE @ RR****	**1**	**ST**	**4"**	✓		
14	Ocoee @ Blueberry Hill	1	ST	2"	✓		
15	Westview Drive @Bridge	1	ST	2"	✓		
16	Border Station Nicholson Drive SW at Northview - Above Ground	1	ST	6"	✓		
17	Border Station Nicholson Drive SW at Northview - Above Ground	1	ST	6"	✓		
18	Border Station Nicholson Drive SW at Northview - Above Ground	1	ST	4"	✓		
19							
20							

--Pine is now Linda

* Leak at this location 63% LEL intially - Personnel called in the leak and the leak was graded as a grade 2 - Work Request #33251956

** Line marker at this location has 615 area code and Cleveland Gas Company at RR

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-9/22/17
INSPECTOR:Shinisha Freeman

MONITORING VALVE
MAINTENANCE AND OPERATION - 2017

		Valve Characterization			Operating		
	Location	# Valves	Type	Size	Yes	No	Comments
1	Murray Hill @ Lake Haven Drive	1	ST	2"	✓		10.14.2
2	Hwy 58 N of Hal Drive	1	ST	6"	✓		10.11.1
3	Hwy 58 at VAAP Road (N Hickory Valley)	1	ST	4"	✓		8.3.1
4	Hunter Road Gate Station	1	ST	2"	✓		EV018
5	Snow Hill Road Gate Station	1	ST	4"	✓		EV016
6	Snow Hill Road Gate Station	1	ST	6"	✓		6.13.1
7	Ootlelwah Ringgold at Apsion Pike	1	ST	6"	✓		6.1.2
8	Ootlelwah Ringgold at Apsion Pike	1	PE	4"	✓		6.2.1
9	Apison Pike at Ootlewah Ringgold	1	ST	6"	✓		6.4.1
10	Apison Pike & Tucker	1	ST	6"	✓		6.7.1
11	Apison Pike & Tucker	1	ST	6"	✓		6.8.1
12	Branston Road & Apsion Pike	1			✓		6.3.1
13	Layfield Road & Frawley	1	PE	2"	✓		13.3.1
14	**Frawley Road & Martha Ave***	**1**	**ST**	**2"**	✓		**13.5.1**
15	Stateline Road @ Glowmont	1	ST	2"	✓		14.9.5
16	Stateline Road @ Keeble Street	1	ST	2"	✓		14.9.4
17	Stateline Road @ Prigmore Road	1	ST	2"	✓		14.9.2
18	Bennett Road @ Eledge Road	1	ST	2"	✓		14.9.1
19	Belevior Ave @ S. Terrace	1	PE	6"	✓		EV036
20							

*** There was a leak in the area and the operator will need to provide documentation of the leak call and repair**

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-9/22/17
INSPECTOR: Shinisha Freeman

MONITORING VALVE
MAINTENANCE AND OPERATION - 2017

		Valve Characterization			Operating		
	Location	# Valves	Type	Size	Yes	No	Comments
1	S. German Road @ Anderson Ave	1	PE	6"	✓		EV037
2	Anderson Ave @ S. Germantown Road	1	PE	6"	✓		12.8.2
3	Dodds Ave @ Rossville Blvd	1	PE	4"	✓		15.3.1
4	Rossville Blvd @ Hamill Road	1	PE	8"	✓		15.2.2
5	East 51st at 17th Ave	1	PE	8"	✓		EV045
6	East 51st at 17th Ave	1	PE	same valve as above	✓		15.2.1
7	Workman Road @English Road	1	PE	8"	✓		15.1.1
8	Brainerd Road @ Bridge Chickamauga Creek	1	ST	6"	✓		12.3.1
9	Church Road @ Shepherd	1	ST	4"	✓		EV02A
10	Shallowford Road @ Chickamauga Creek	1	ST	6"	✓		EV027 - Needs Lock
11	Colonial & Moore	1	PE	6"	✓		12.6.1
12	Colonial & Moore	1	PE	4"	✓		12.5.1
13	Shutdown to LNG Plant	1	ST	12"	✓		EV055
14	Shutdown to Boil off LNG	1	ST	4"	✓		EV054
15	East Chattanooga Gate Station*	1	ST	16"	✓		EV035
16	East Chattanooga Gate Station*	1	ST	8"	✓		EV006
17	New Access Road @ Dupont Easement*	1			✓		EV007
18							
19							
20							

* Need to remove old line markers that have 615 number on them

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga, TN
DATE: 9/18-9/22/17
INSPECTOR: Shinisha Freeman

PIPE-TO-SOIL POTENTIAL SURVEY OF THE CATHODIC PROTECTION OF THE GAS SYSTEM - 2017

	Location	P/S Potential Reading	Atmospheric Corrosion
1	9420 East Brainerd Road	-1.19	Paint needed at soil air interface
2	7801 East Brainerd Road	-1.01	Cigarette butts bucket at this location - No atmospheric corrosion issues
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

None
Slight Surface Rust
Pitted: Needs Attention

Pipe to Soil Interface

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga & Cleveland, TN
DATE: September 21, 2017
INSPECTOR: Thompson

ATMOSPHERIC CORROSION OF ABOVE GROUND PIPING - 2017

	Location	Atmospheric Corrosion
1	Hopewell School (Cleveland)	Slight
2	Christway Church (Ooltewah)	None
3	Chattanooga Marriott (downtown)	None
4	6215 Forest Park Lane (Signal Mtn)	None
5	Pilgrim's Feed Plant (Tiftonia)	None
6	Parkridge East Hospital (East Ridge)	None
7	Soddy-Daisy High School	None
8	University of TN - Chattanooga	Slight
9		
10		
11		
12		
13		
14		
15		

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas

TOWN: Chattanooga & Cleveland, TN

DATE: September 21, 2017

INSPECTOR: Thompson

MONITORING AND TESTING
ODORIZATION SAMPLING - 2017

	Location	% In Air	Detectable
1	Hopewell School (Cleveland)	0.53%	Readily
2	Christway Church (Ooltewah)	0.42%	Readily
3	Chattanooga Marriott (downtown)	0.48%	Readily
4	6215 Forest Park Lane (Signal Mtn)	0.53%	Readily
5	Pilgrim's Feed Plant (Tiftonia)	0.48%	Readily
6	Parkridge East Hospital (East Ridge)	0.43%	Readily
7	Soddy-Daisy High School	0.39%	Readily
8	University of TN - Chattanooga	0.57%	Readily
9			
10			

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas

TOWN: Chattanooga & Cleveland, TN

DATE: September 18-21, 2017

INSPECTOR: Thompson

REGULATOR/ RELIEF VALVE MONITORING - 2017

LOCATION(S):	Adams Rd @ Marsh Lane	Arbor Landing Drive @ Middle Valley Rd	Run #1 Eagle Drive @ Middle Valley	Run #2 Eagle Drive @ Middle Valley	Pheasant Run Apartments
PRESSURES:					
INLET (PSIG)	230	231	231	231	231
OUTLET (PSIG)	55	57.5	56	56	56
MAOP(S):					
INLET (PSIG)	250	250	250	250	250
OUTLET (PSIG)	60	60	60	60	60
OVERPRESS. PROTECTION:					
RELIEF POPPED (PSIG)	61*	62	61	61	62
MONITOR	Yes	No	Yes	Yes	No
RELIEF VENT CAPPED:	N/A (internal)	Yes	N/A (internal)	N/A (internal)	Yes
LOCK UP PRESSURE:	58 / 64	58 / 56	59 / 63	57 / 63	58 / 56
CAPACITY VERIFIED:	Yes	Yes	Yes	Yes	Yes
ATMOS. CORROSION:	None	None	None	None	None
P/S POTENTIAL	-1.650	-1.690	-1.610	-1.610	-1.680
SECURITY:					
FENCED					
HOUSED	Yes	Dog House			Dog House
BARRICADE	Yes		Yes	Yes	
OTHER					
VALVES TURNED:	1	3	4	4	3
VALVES LOCKED:					
RELIEF	Housed	Yes	Yes	Yes	Yes
BYPASS	Housed	N/A	N/A	N/A	N/A
MARKERS AVAILABLE:	Yes	Yes	Yes	Yes	Yes
COMMENTS:	*token relief between set points of 1st & 2nd cut				

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas

TOWN: Chattanooga & Cleveland, TN

DATE: September 18-21, 2017

INSPECTOR: Thompson

REGULATOR/ RELIEF VALVE MONITORING - 2017

LOCATION(S):	Standifer Gap @ Old Standifer Gap	Derby Downs @ Hickory Valley	Hickory Valley @ Hwy 58	Hickory Valley Tap Station - Run #1	Hickory Valley Tap Station - Run #2
PRESSURES:					
INLET (PSIG)	221	221	220	529	529
OUTLET (PSIG)	57	58	56	219	219
MAOP(S):					
INLET (PSIG)	250	250	250	787	787
OUTLET (PSIG)	60	60	60	250	250
OVERPRESS. PROTECTION:					
RELIEF POPPED (PSIG)	62	63	60	250	248
MONITOR	No	No	No	Yes	Yes
RELIEF VENT CAPPED:	Yes	Yes	Yes	N/A (internal)	N/A (internal)
LOCK UP PRESSURE:	58 / 56	60 / 57	56 / 58	220 / 260	222 / 265
CAPACITY VERIFIED:	Yes	Yes	Yes	Yes	Yes
ATMOS. CORROSION:	Slight	None	Slight	None	None
P/S POTENTIAL	-1.605	-2.080	-1.601	-1.660	-1.660
SECURITY:					
FENCED				Yes	Yes
HOUSED		Dog House			
BARRICADE	Yes				
OTHER	Vault		Vault / Off the road		
VALVES TURNED:	3	3	3	2	2
VALVES LOCKED:					
RELIEF	Yes	Yes	Yes	Yes	Yes
BYPASS	Yes	N/A	N/A	N/A	N/A
MARKERS AVAILABLE:	Yes	Yes	Yes	Yes	Yes
COMMENTS:	Belowground		Belowground Vault >200 ft3		

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas

TOWN: Chattanooga & Cleveland, TN

DATE: September 18-21, 2017

INSPECTOR: Thompson

REGULATOR/ RELIEF VALVE MONITORING - 2017

LOCATION(S):	Snow Hill Road Run #1	Snow Hill Road Run #2	Bill Reed Road MHP Run #1	Bill Reed Road MHP Run #2	Creek Bend @ Mouse Creek
PRESSURES:					
INLET (PSIG)	535	535	219	219	81
OUTLET (PSIG)	35	35	55	55	54
MAOP(S):					
INLET (PSIG)	880	880	250	250	85
OUTLET (PSIG)	60	60	60	60	60
OVERPRESS. PROTECTION:					
RELIEF POPPED (PSIG)	N/C	N/C	61	61	60
MONITOR	Yes	Yes	Yes	Yes	No
RELIEF VENT CAPPED:	N/A (internal)	N/A (internal)	N/A (internal)	N/A (internal)	Yes
LOCK UP PRESSURE:	61 / 230	57 / 230	56 / 64	60 / 65	55 / 61
CAPACITY VERIFIED:	Yes	Yes	Yes	Yes	Yes
ATMOS. CORROSION:	None	None	None	None	Slight
P/S POTENTIAL	-1.320	-1.320	-1.330	-1.330	-1.110
SECURITY:					
FENCED	Yes	Yes	Yes	Yes	
HOUSED					
BARRICADE					
OTHER	Remote location	Remote location			Vault
VALVES TURNED:	1	1	2	2	3
VALVES LOCKED:					
RELIEF	Yes	Yes	Yes	Yes	Yes
BYPASS	N/A	N/A	N/A	N/A	Yes
MARKERS AVAILABLE:	Yes	Yes	Yes	Yes	Yes
COMMENTS:					Leak on regulator housing; Tightened during inspection

TENNESSEE PUBLIC UTILITY COMMISSION

OPERATOR: Chattanooga Gas
TOWN: Chattanooga & Cleveland, TN
DATE: September 18-21, 2017
INSPECTOR: Thompson

REGULATOR/ RELIEF VALVE MONITORING - 2017

LOCATION(S):	Mouse Creek Rd. @ Hunter's Run	Shady Lane @ Overlook	The Village @ Garden Plaza	Peach Orchard Hill @ Michigan	Collegetown Mobile Home Park
PRESSURES:					
INLET (PSIG)	81	80	79	76	N/C
OUTLET (PSIG)	55	54	30	35	29
MAOP(S):					
INLET (PSIG)	85	85	85	85	85
OUTLET (PSIG)	60	60	60	60	60
OVERPRESS. PROTECTION:					
RELIEF POPPED (PSIG)	60	N/C	40	38	41
MONITOR	No	No	No	No	No
RELIEF VENT CAPPED:	Yes	Yes	Yes	Yes	Yes
LOCK UP PRESSURE:	56 / 51	N/C	31 / 28	36 / 30	29
CAPACITY VERIFIED:	Yes	Yes	Yes	Yes	Yes
ATMOS. CORROSION:	None	None	None*	None	None
P/S POTENTIAL	-1.210	-1.050	*-0.750*	-1.200	*-0.840*
SECURITY:					
FENCED					
HOUSED		Dog House	Dog House	Dog House	
BARRICADE					
OTHER	Vault		Off the road	Off the road	Off the road
VALVES TURNED:	3	0	3	3	2
VALVES LOCKED:					
RELIEF	Yes	Yes	Yes	Yes	Yes
BYPASS	Yes	N/C	N/A	N/A	N/A
MARKERS AVAILABLE:	Yes	Yes	Yes	Yes	Yes*
COMMENTS:	Belowground		* Rusty riser scraped, primed & spray painted.		* Marker missing; New one installed during inspection

TPUC-0402 Rev 04/2017

Tennessee Public Utility Commission
Gas Pipeline Safety Division
Inspection Affidavit

I acknowledge that an inspection of Chattanooga Gas (Gas Company)

was performed on the following date(s): September 18-22, 2017,

and that the completed inspection form was available for review during the exit interview and the information provided for purposes of this inspection is true, accurate, and complete to the best of my knowledge and belief.

Contact: Michelle Wisz Cell #: (423) 486-2698

Office #: (423) 490-4300 Email: mmwisz@Southernco.com

Mailing Address, City State Zip: 2207 Olan Mills Dr, Chattanooga, TN 37421

Company Street Address: Same

Responsible Company Official: Wendell Dalks Title: VP of Operations

Mailing Address: 10 Peachtree Place NE, Atlanta, GA 30309

The following violations were cited during this inspection: NOPV: § 192.285 Plastic Pipe: Qualifying Persons to Make Joints

Executed and sworn on this 22nd **day of** September, **2017**

Jed Williams
GPSD Inspector Signature

Michelle M. Wisz
Gas Company Contact Signature

Michelle Wisz
Please Print Contact Name

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR

TENNESSEE PUBLIC UTILITY COMMISSION - GAS PIPELINE SAFETY DIVISION

Name of Operator: Chattanooga Gas	**OPID #:** 02288
Name of Unit(s): (Chattanooga; Cleveland)	
Records Location: 2207 Olan Mills Drive, Chattanooga, TN	
Inspection Type: Standard & Protocol 9	**Inspection Date(s):** September 18-22, 2017
TPUC Representative(s): Ted Wilkinson	

Company System Maps (copies for Region Files):

Summary:

A complete (standard) natural gas distribution inspection of Chattanooga Gas was performed on September 18-22, 2017. The inspection consisted of a comprehensive review of required documents (i.e., plans, procedures, records) along with a field inspection. The field inspection included observation of qualified operator personnel performing certain covered tasks; this is documented separately on the OQ Protocol 9 Field Inspection Form.

Findings:

Inspection findings and observations are summarized separately on the Safety Inspection Evaluation form.

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR

Findings:

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR

Name of Operator:	Chattanooga Gas
HQ Address:	**Unit Name & Address:**
AGL Resources, Inc. 10 Peachtree Place NE Atlanta, GA 30309	Chattanooga Gas 2207 Olan Mills Dr Chattanooga, TN 37421
Company Official: Wendell Dallas, VP of Operations	**Unit Official:** Michelle Wisz
Phone #:	**Phone #:** 423-486-2698 (cell)
Fax #:	**Fax #:** 423-490-4326
Emergency Phone #:	**Emergency Phone #:** 866-643-4170

Persons Interviewed	Title	Phone #
Michelle Wisz	Operations Supervisor	423-486-2698 (cell)
David Hawkes	Operations Supervisor	
Ricky Clements	Corrosion Tech	
Hasson Granado	Corrosion Tech	
Robin Smith	Corrosion Tech	
Mark Roy	Pressure Specialist	
Scott Keith	Pressure Technician 3	
Larry Buie	Regional Director	
Bennie Kinsey	Project Coordinator	

Unit Description:

Distribution System Components:

545.5 miles of coated steel **36 miles of bare steel (10.6 miles unprotected)**
0 miles of Ductile Iron
1.0 miles of Cast Iron (wrought iron)
1047.1 miles of Plastic
138 Regulator Stations – 31 Regulator without relief
157 casings – 157 steel/steel casings – 12 casings are shorted – Checked Quarterly
12 Odorizers – number and Type Injection
390 Critical Valves
0 Non-critical valves
22 Rectifier **0 Interference Bonds (critical or non-critical?)**
1925 CP Test Locations
38 Sniff Test locations
98 Bridge Crossings
Creek crossing (lay in not bored)
7502 Isolated services
____ Construction Planned this year Approx. 30 miles new mains and services
____ Mechanical Couplings in System, tracking and reporting Unknown

For gas distribution pipeline inspections, the attached evaluation form should be used in conjunction with 49CFR Parts 191 and 192.

GAS SYSTEM OPERATIONS

Gas Supplier	Enbridge Inc. (formerly Spectra Energy)	Date:	(current)			
Unaccounted for gas: (on Annual Report)	0.20% (2016)	Services:	*Residential*	*Commercial*	*Industrial*	*Other*
			55,996 (active)	8,343 (active)	110 (active)	115 (industrial end use)

Operating Pressure(s):		MAOP (Within last year)	Actual Operating Pressure (At time of Inspection)
Feeder:	Bill Reed Road	600 (in) / 300 (out)	N/C
Feeder:	N. Hickory Valley	787 (in) / 250 (out)	529 (in) / 219 (out)
Feeder:	Snow Hill Road	880 (in) / 60 (out)	535 (in) / 35 (out)
Feeder:	Cleveland #2	649 (in) / 300 (out)	N/C
Other:	(see MAOP section)		

Does the operator have any transmission pipelines?	Yes
Does operator have any compressor stations?	No
Does operator have a control room/SCADA?	SCADA in Atlanta
Has operator conducted or planning an uprating?	No
Does operator have customer meters in basement or inside buildings?	Yes

49CFR PART 191

	REPORTING PROCEDURES	S	U	N/A	N/C
.605(b)(4)					
	191.5 Immediate Notice of certain incidents to **NRC (800) 424-8802**, *(191.3 - A release of gas from a pipeline, that results in a death or personal injury necessitating in-patient hospitalization, estimated property damage of $50,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost, unintentional estimated gas loss of three million cubic feet or more, or an event that is significant in the judgment of the operator.)* **OM – Division II, Section 5.1.1 (pp. 127-129)**	X			
	191.7 Reports (except SRCR and offshore pipeline condition reports) must be submitted electronically to PHMSA at https://portal.phmsa.dot.gov/pipeline unless an alternative reporting method is authorized IAW with paragraph (d) of this section. **OM – Division II, Section 5.2 (p. 138)**	X			
	191.9(a) 30-day follow-up written report **(Form 7100.1)** Submittal must be electronically to https://portal.phmsa.dot.gov/pipeline **OM – Division II, Section 5.2 (p. 138)**	X			
	191.9(b) Supplemental report (to 30-day follow-up) when additional relevant information is obtained. **OM – Division II, Section 5.2.11 (p. 141)**	X			
605(a)	191.11 Annual Report **OM – Division II, Section 5.8 (p. 157)**	X			
	191.12 Mechanical Fitting Failure Report **OM – Division II, Section 5.9 (p. 158)**	X			
	191.22 Each operator must obtain an OPID, validate its OPIDs, and notify PHMSA of certain events at https://portal.phmsa.dot.gov/pipeline - **Operator has an OPID (02288)**	X			
	191.23 Reporting safety-related condition (SRCR) **OM – Division II, Section 5.5 (pp. 152-157)**	X			
	191.25 Filing the SRCR within 5 days of determination, but not later than 10 days after discovery **OM – Division II, Section 5.5.1 (p. 152)**	X			
.605(d)	Instructions to enable operation and maintenance personnel to recognize potential **Safety Related Conditions** **OM – Division II, Section 5.5 (pp. 153-157)**	X			

Comments:

	REGULATORY REPORTING PERFORMANCE AND RECORDS	S	U	N/A	N/C
191.5	Telephonic reports to NRC			X	
191.15	Written incident reports; supplemental incident reports **(Form F 7100.1)**			X	
191	Annual Reports **(Forms 7100.1-1, 7100.1-2)** **2016 Annual Report submitted 3/15/17**	X			
191.23	Safety related condition reports			X	

Comments:

49CFR PART 192

			S	U	N/A	N/C
.13(c)		**CUSTOMER AND EFV INSTALLATION NOTIFICATION PROCEDURES**				
	.16	Procedures for notifying new customers, within **90 days**, of their responsibility for those sections of service lines not maintained by the operator. **OM – Division II, Section 14.2 (pp. 326-327)**	X			
	.381	If EFVs are installed, they must meet the performance requirements of §192.381 **OM – Division III, Section 2.3.3 (pp. 446-447)**	X			
	.383(b)	Written EFV Procedures **OM – Division III, Section 3.18.5 (pp. 491-494)**	X			

			S	U	N/A	N/C
.13(c)		**CUSTOMER AND EFV INSTALLATION NOTIFICATION RECORDS**				
	.805	Does operator have OQ records for person(s) performing this task? **Yes** Who is (are) the person(s) performing these tasks? **Reggie Smith (qualified 4/19/13); Robert Conway (qualified 8/18/15); David Smith (qualified 9/01/17); Justin Harris (qualified 1/30/13); Cullen DeBusk (qualified 6/22/17) (5-year task)**	X			
	Who sizes the EFV installations for your system? **Engineering**		X			
	Does operator have provision for maintaining EFV sizing calculation? **Engineering**		X			
	Which OQ covered task includes EFV installation? **Task No. 018A ("EFV Installation")**		X			

Comments:
The operator has satisfied the EFV customer notification.

			S	U	N/A	N/C
.605(a)		**NORMAL OPERATING and MAINTENANCE PROCEDURES**				
	.605(a)	O&M Plan review and update procedure **(1 per year/15 months) OM – Division I, Section 1.4 (p. 6)**	X			
	.605(b)(3)	Making construction records, maps, and operating history available to appropriate operating personnel **OM – Section II, General (p. 33)**	X			
	.605(b)(5)	Start up and shut down of the pipeline to assure operation within **MAOP** plus allowable buildup **OM – Section II, Section 16.1 (p. 343)**	X			
	.605(b)(8)	Periodically reviewing the work done by operator's personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedures when deficiencies are found **OM – Division I, Section 1.5 (p. 7)**	X			
	.605(b)(9)	Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapors or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and a rescue harness and line **OM – Division II, Section 19.3 (pp. 373-377)**	X			

			S	U	N/A	N/C
.603(b)		**NORMAL OPERATING and MAINTENANCE PROCEDURE RECORDS**				
	.605(a)	Procedural Manual Review – Operations and Maintenance **(1 per yr/15 months)**	X			
	.605(b)(3)	Availability of construction records, maps, operating history to operating personnel **Hard copy maps maintained in Gas office; GIS also used**	X			
	.605(b)(8)	Periodic review of personnel work – effectiveness of normal O&M procedures **Annual reviews/audits of O&M Manual; Daily observation by supervision; OQ processes**	X			
	.605(c)(4)	Periodic review of personnel work – effectiveness of abnormal operation procedures			X	
192.16	Customer Notification **(Verification – 90 days – and Elements) Letter used for all new customers**		X			
192.727(g)	Abandoned facilities offshore, onshore crossing commercially navigable waterways reports (PHMSA Advisory Bulletin ADB-2016-05)				X	

Comments:
O&M Plan reviewed/ revised – 6/30/17; 11/30/16; 4/29/16

.605(a)	CHANGE in CLASS LOCATION PROCEDURES		S	U	N/A	N/C
	.609	Class location study (if applicable) OM – Division II, Section 18.4 (p. 366-367) Note: Not applicable	X			
	.611	Confirmation or revision of MAOP OM – Division II, Section 18.5 (p. 367-368)	X			

	CHANGE in CLASS LOCATION RECORDS		S	U	N/A	N/C
	.609	Class Location Study (If Applicable)			X	

Comments:
All lines are pressure tested to Class 3 requirements.

.613	CONTINUING SURVEILLANCE PROCEDURES		S	U	N/A	N/C
	.613(a)	Procedures for surveillance and required actions relating to change in class location, failures (including cast iron circumferential cracking), leakage history, corrosion, substantial changes in CP requirements, and unusual operating and maintenance conditions (NTSB B.8) OM – Division II, General (pp. 33-34)	X			
	.613(b)	Procedures requiring MAOP to be reduced, or other actions to be taken, if a segment of pipeline is in unsatisfactory condition OM – Division II, Section 6.1 (p. 161)	X			

Comments:

.605(a)	DAMAGE PREVENTION PROGRAM PROCEDURES		S	U	N/A	N/C
	.614(c)	Participation in a qualified one-call program, or if available, a company program that complies with the following:				
		(1) Identify persons who engage in excavating OM – Division II, Section 3.1.1 (p. 53)	X			
		(2) Provide notification to the public in the One Call area OM – Division II, Section 3.1.2 (p. 53)	X			
		(3) Provide means for receiving and recording notifications of pending excavations OM – Division II, Section 3.2.2 (pp. 54-56)	X			
		(4) Provide notification of pending excavations to the members OM – Division II, Section 3.2.2 (p. 54)	X			
		(5) Provide means of temporary marking for the pipeline in the vicinity of the excavations OM – Division II, Section 3.3 (p. 57)	X			
		(6) Provides for follow-up inspection of the pipeline where there is reason to believe the pipeline could be damaged OM – Division II, Section 3.6 (p. 67)	X			
		(i) Inspection must be done to verify integrity of the pipeline OM – Division II, Section 3.6 (p. 67)	X			
		(ii) After blasting, a leak survey must be conducted as part of the inspection by the operator OM – Division II, Section 3.6 (p. 67)	X			

	Damage Prevention (Miscellaneous)	S	U	N/A	N/C
	Were there any "hits" or damages to your facilities in the previous calendar year? Yes If yes, were these "hits" or damages reported to TN One-Call? Yes ☒ No ☐	X			
	Who caused these "hits" or damages?	X			

Contractors	9 Bradley; 142 Hamilton
Utilities	8 Bradley; 16 Hamilton
Landscapers	0 Bradley; 9 Hamilton
Home Owners	4 Bradley; 24 Hamilton
Farmers	0 Bradley; 0 Hamilton
Others	0 Bradley; 9 Hamilton

	Damage Prevention (Miscellaneous)	S	U	N/A	N/C
	Estimated total cost of damages and repair: **$17,756 Bradley; $115,074 Hamilton** Did the damage cause any interruption of service to customers? **Yes** If yes, how many customers were affected by the outage? **8 Bradley; 116 Hamilton**	X			
	Which master meter operator(s) do you serve natural gas? **Alexian Village**	X			

Comments:

Example Excavation Damage Repair Records:

9405 Apison Pike (9/15/16); Modern Cable company damaged 0.5: PE service line with shovel; Installed repair coupling; Pressure tested at 90 psig for 10 minutes with air

2600 Avalon Place (10/20/16); Plumber hit 0.5" PE service line with backhoe while digging ditch; Repaired with stab fittings and 6" of PE pipe; Pressure tested at 90 psig for 10 minutes with air

1408 Armour St (12/09/16); Plumbers damaged 0.5" PE service line while digging up water line; Repaired with stab couplings and 3' of 0.5" PE pipe; Pressure tested at 90 psig for 10 minutes with air

1629 Brandi Lane (6/30/16); Contractors hit 0.5" PE service line with backhoe; Repaired with stab fittings and 12" of PE Pipe; Pressure tested at 90 psig for 10 minutes with air

6110 Chandler-Hill Rd (12/20/16); Contactor damaged 0.5" PE service line with shovel; Repaired with stab coupling; Pressure tested and soap tested

4509 Tennessee Ave (12/02/16); Plumbers damaged 0.5" PE service line while installing new later line; Repaired with stab couplings and 2' of 0.5" PE pipe; Pressure tested at 90 psig for 10 minutes with air

7 Woodhill Dr (12/22/16); Homeowner damaged 0.5" PE service line while digging holes to set bushes/trees; Repaired with stab couplings and 1' of 0.5" PE pipe; Pressure tested at 90 psig for 10 minutes with air

4030 S. Access Rd (2/07/17); Star Construction damaged 0.5" PE service line while digging up water service; Repaired with stab couplings and PE pipe (air tested)

2044 Belleau-Village Lane (3/30/17); Contractor damaged 0.5" PE service line with backhoe while digging for sewer; Repaired with stab coupling

1418 Quiet Pond Dr (10/10/16); Contractor damaged 0.5" PE service line while hand digging; Repaired with stab fitting; Soap tested

Operator uses Service Record Cards to document repairs and pressure testing; Damage Billing Forms are used to document repairs and costs

.615		EMERGENCY PROCEDURES	S	U	N/A	N/C
	.615(a)(1)	Receiving, identifying, and classifying notices of events which require immediate response by the operator **OM – Division II, Section 22.3.2 (p. 393); Emergency Manual – Section 2.2**	X			
	.615(a)(2)	Establish and maintain communication with appropriate public officials regarding possible emergency **OM – Division II, Sections 22.3.1 (pp. 392-393); 22.3.3 (p. 395); 22.3.5 (p. 398); 22.3.6 (p. 399)**	X			
	.615(a)(3)	Prompt response to each of the following emergencies:				
		(i) Gas detected inside a building **OM – Division II, Section 22.3.6 (pp. 399-400); Emergency Manual – Section 2.7**	X			
		(ii) Fire located near or directly involving a pipeline **OM – Division II, Section 22.3.5 (pp. 397-399); Emergency Manual – Section 2.6**	X			
		(iii) Explosion near or directly involving a pipeline **OM – Division II, Section 22.3.4 (pp. 396-397); Emergency Manual – Section 2.5**	X			
		(iv) Natural disaster **OM – Division II, Section 22.3.10 (pp. 402-403); Emergency Manual – Section 2.11**	X			

.615	EMERGENCY PROCEDURES		S	U	N/A	N/C
	.615(a)(4)	Availability of personnel, equipment, instruments, tools, and material required at the scene of an emergency **Emergency Manual – Section 5**	X			
	.615(a)(5)	Actions directed towards protecting people first, then property. **OM – Division II, Sections 22.3.3 (p. 394); 22.3.6 (p. 399); 22.3.10 (p. 403)**	X			
	.615(a)(6)	Emergency shutdown or pressure reduction to minimize hazards to life or property **OM – Division II, Section 22.3.9 (pp. 401-402); Emergency Manual – Section 2.10**	X			
	.615(a)(7)	Making safe any actual or potential hazard to life or property. Response should consider the possibility of leaks in multiple locations caused by excavation damage and underground migration of gas into nearby buildings. (NTSB B.9) **OM – Division II, Sections 22.3.4 (p. 397); 22.3.6 (p. 399); 22.3.7 (p. 400)**	X			
	.615(a)(8)	Notifying appropriate public officials required at the emergency scene and coordinating planned and actual responses with these officials **OM – Division II, Sections 22.3.1 (pp. 392-393); 22.3.3 (p. 395); 22.3.5 (p. 398); 22.3.6 (p. 399)**	X			
	.615(a)(9)	Instructions for restoring service outages after the emergency has been rendered safe **OM – Division II, Section 22.3.11 (pp. 409-410); Emergency Manual – Section 2.12**	X			
	.615(a)(10)	Investigating accidents and failures as soon as possible after the emergency **OM – Division II, Sections 22.3.13 (p. 411); 7.1 (pp. 199-200); Emergency Manual - Section 2.13**	X			
	.615(b)(1)	Furnishing applicable portions of the emergency plan to supervisory personnel who are responsible for emergency action **OM – Division II, Section 22.3.1 (p. 392); Emergency Manual – Section 1.4**	X			
	.615(b)(2)	Training appropriate employees as to the requirements of the emergency plan and verifying effectiveness of training **OM – Division II, Section 22.3.1 (p. 392)**	X			
	.615(b)(3)	Reviewing activities following emergencies to determine if the procedures were effective **OM – Division II, Section 22.3.1 (p. 392); Emergency Manual – Section 2.14**	X			
	.615(c)	Establish and maintain liaison with appropriate public officials, such that both the operator and public officials are aware of each other's resources and capabilities in dealing with gas emergencies **OM – Division II, Section 22.3.1 (pp. 392-393); Emergency Manual – Section 1.3**	X			

.603(b)	EMERGENCY PROCEDURE RECORDS		S	U	N/A	N/C
	.615(b)(1)	Location Specific Emergency Plan **Maintained in Michelle Wisz's office**	X			
	.615(b)(2)	Emergency Procedure training, verify effectiveness of training	X			
	.615(b)(3)	Employee Emergency activity review, determine if procedures were followed. **Leak call records are maintained**	X			
	.615(c)	Liaison Program with Public Officials **Annual meetings with Bradley County EMA and Hamilton County EMA documented**	X			
	.616	Public Education/Awareness Program **See Public Awareness section**	X			
	.805	Does operator have OQ records for person(s) performing emergency response tasks? **Yes** Who is (are) the person(s) performing these tasks? **Ricky Colston (qualified 2/06/17); Reggie Smith (qualified 10/21/16); Robert Conway (qualified 6/22/17); David Smith (qualified 7/21/17); Daniel Day (qualified 2/09/17) (1-year task)**	X			

Comments:
Emergency Plan Review/Revised 6/05/17; 3/18/16
Last Emergency Training 6/09/17
Employees review Emergency plans and procedures 6/09/17; Also, CT Training annually
Records of 24/7 On-Call personnel assignments Duty roster maintained in Michelle Wisz's office; Rotating schedule; 24/7 availability; Emergency number 24/7 access
Which OQ covered task contains emergency response? Task No. 032A ("Leak Investigation")

PUBLIC AWARENESS PROGRAM PROCEDURES (Also in accordance with API RP 1162)				S	U	N/A	N/C
.605(a)	.616		Public Awareness Program also in accordance with API RP 1162 (Amdt 192-99 pub. 5/19/05 eff. 06/20/05 and Amdt 192-not numbered pub 12/13/07 eff. 12/13/07).				
	.616(d)		The operator's program must specifically include provisions to educate the public, appropriate government organizations, and persons engaged in excavation related activities on:				
		(1)	Use of a one-call notification system prior to excavation and other damage prevention activities;	X			
		(2)	Possible hazards associated with unintended releases from a gas pipeline facility;	X			
		(3)	Physical indications of a possible release;	X			

PUBLIC AWARENESS PROGRAM PROCEDURES (Also in accordance with API RP 1162)				S	U	N/A	N/C
		(4)	Steps to be taken for public safety in the event of a gas pipeline release; and	X			
		(5)	Procedures to report such an event (to the operator).	X			
	.616(e)	The operator's program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.		X			
	.616(f)	The operator's program and the media used must be comprehensive enough to reach all areas in which the operator transports gas.		X			
	.616(g)	The program must be conducted in English and any other languages commonly understood by a significant number of the population in the operator's area? **Census data used; 10% considered significant for non-English speaking**		X			
	.616(h)	IAW API RP 1162, the operator's program should be reviewed for effectiveness within four years of the date the operator's program was first completed. For operators in existence on June 20, 2005, who must have completed their written programs no later than June 20, 2006, the first evaluation is due no later than **June 20, 2010**.		X			

Comments:
Letters/Bill stuffers/Notice on Bill sent on Bill inserts to customers periodically (Sept 2017; June 2017; March 2017; December 2016); TGA radio ads ongoing; Line markers; Participation in PIPE and Paradigm meetings
Public Awareness Plan last reviewed/Implementation Audit last performed 12/23/16
Most recent Effectiveness Evaluation completed 2014 (Also, Paradigm survey conducted annually)
Next Effectiveness Evaluation due 2018

.617	FAILURE INVESTIGATION PROCEDURES		S	U	N/A	N/C
	.617	Analyzing accidents and failures including laboratory analysis where appropriate to determine cause and prevention of recurrence **OM – Division II, Section 7.1 (pp. 199-200)**	X			

.617	FAILURE INVESTIGATION RECORDS		S	U	N/A	N/C
	.617	Failure Investigation Reports (Note: Also include reported third party damage and leak response records. NTSB.10)	X			

Comments:

Example Leak Call Repair Records:

2906 Old Britain Circle (11/01/16): Customer smelled gas outside; Call received at 4:12 pm; Leak found on service regulator face; Repaired by tightening screws on regulator face; Soap tested; Completed at 5:31 pm

7351 Courage Way (7/03/17): Customer smelled gas at service regulator; Call received at 10:05 am; Leak found on service regulator; Replaced with new regulator; Soap tested; Completed at 11:23 am

4725 Wilson Ave (8/02/17): Customer smelled gas in vicinity of meter; Call received at 7:23 am; Leaks found on inlet side of bypass valve and outlet side of union at service regulator inlet; Repaired by tightening; Soap tested; Completed at 9:39 am

8095 Hampton-Cove Dr (10/02/16): Customer smelled gas in vicinity of meter; Call received at 11:28 am; Leak found on union at meter; Tightened union; Soap tested; Completed at 12:25 pm

1703 Rock-Bluff Rd (2/01/17): Customer smelled gas outside at connection to gas grill; Call received at 4:42 pm; Leak found on hose serving gas grill outside; Capped 0.5" fuel line; Soap tested meter

Operator has a response time of 1 hour or less on leak calls.

Example Excavation Damage Repair Records: Refer to Damage Prevention section

.605(a)	MAOP PROCEDURES	S	U	N/A	N/C
	.619 Establishing **MAOP** so that it is commensurate with the class location **OM – Division II, Section 16.1 (p. 343)**	X			
	MAOP cannot exceed the lowest of the following:				
	(a)(1) Design pressure of the weakest element **OM – Division II, Section 16.1(a) (p. 343)**	X			
	(a)(2) Test pressure divided by applicable factor **OM – Division II, Section 16.1(b) (p. 344)**	X			
	(a)(3) The highest actual operating pressure to which the segment of line was subjected during the 5 years preceding the applicable date in second column, unless the segment was tested according to .619(a)(2) after the applicable date in the third column or the segment was uprated according to subpart K. **OM – Division II, Section 16.1(c) (p. 344)**	X			

Pipeline segment	Pressure date	Test date
- Onshore transmission line that was a gathering line not subject to this part before March 15, 2006.	March 15, 2006, or date line becomes subject to this part, whichever is later.	5 years preceding applicable date in second column.
All other pipelines.	July 1, 1970.	July 1, 1965.

	(a)(4) Maximum safe pressure determined by operator. **OM – Division II, Section 16.1(d) (p. 344)**	X			
	(b) Overpressure protective devices must be installed if .619(a)(4) is applicable **OM – Division II, Sections 16.1(d) (p. 344); 16.4 (p. 346)**	X			
	(c) The requirements on pressure restrictions in this section do not apply in the following instance. An operator may operate a segment of pipeline found to be in satisfactory condition, considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years preceding the applicable date in the second column of the table in paragraph (a)(3) of this section. An operator must still comply with § 192.611 **OM – Division II, Section 16.1 (pp. 344-345)**	X			
	.621 MAOP - High Pressure Distribution Systems Note: **D F** =0.32, or = 0.40 for PA-11 pipe produced after January 23, 2009 with a nominal pipe size (IPS or CTS) 4-inch or less, and a SDR of 11 or greater (i.e. thicker pipe wall), PA-11 design criteria in 192.121 & .123, (Final Rule Pub. 24 December, 2008) **OM – Division II, Section 16.2 (p. 345)**	X			
	.623 Max./Min. Allowable Operating Pressure - Low Pressure Distribution Systems **OM – Division II, Section 16.3 (p. 345) Note: Not applicable**			X	

.605(a)	MAOP RECORDS	S	U	N/A	N/C
	.619 & .621 Starting at your take station, what are your maximum allowable operating pressures (MAOPs) and the actual operating pressures on the line throughout your distribution system? (See location table below)	X			
	.619 .621 .623 Maximum Allowable Operating Pressure (MAOP) Note: New PA-11 design criteria is incorporated into 192.121 &.123 (Final Rule Pub. 24 December 2008)	X			

Location	MAOP (psig)		Operating Pressure (psig)	
	Inlet	Outlet	Inlet	Outlet
Bill Reed Road (tap)	600	300	N/C	N/C
Davidson Road (tap)	600	250	N/C	N/C
East Station	232	60	N/C	N/C
N. Hickory Valley (tap)	787	250	529	219
Red Bank	100	60	N/C	N/C
Snow Hill Road (tap)	880	60	535	35
Cleveland #1	150	85	N/C	N/C
Cleveland #2	649	300	N/C	N/C
Gunbarrel Road (multiple)	250	60	N/C	N/C
Volkswagon Supplier Park	250	60	N/C	N/C
Ridgetop @ North Sanctuary	250	60	N/C	N/C
State Line Road @ Prigmore Road	250	60	N/C	N/C
Hickory Valley @ Hwy 58	250	60	220	56
James @ Taft Highway	150	60	N/C	N/C
Industrial Way Drive	85	60	N/C	N/C
Grove	85	60	N/C	N/C
Union Street	150	85	N/C	N/C
Paragon Court	85	60	N/C	N/C
Bradley Mall	300	60	N/C	N/C
Freewill Road	85	60	N/C	N/C
Pheasant Run Apartments	250	60	231	56
Bill Reed Road MHP	250	60	219	55
Creek Bend @ Mouse Creek	85	60	81	54
The Village @ Garden Plaza	85	60	79	30

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X

.553& .557 Has the operator increased the MAOP on any part of your system in the past 12 months? No
If yes, location and pressure change? If yes, was the operator's uprate procedure reviewed by the TPUC? X

Comments:

.13(c)	PRESSURE TEST PROCEDURES	S	U	N/A	N/C
	.503 Pressure testing **OM – Division III, Sections 9.1 – 9.8 (pp. 845-855)**	X			

	PRESSURE TEST RECORDS	S	U	N/A	N/C
.619	On distribution lines that are repaired by cutting out the damaged portion, has the new section been pressure tested to maintain the MAOP? **Yes**	X			
	For plastic pipe in your system, what test pressure do you use in determining your MAOP? **1.5x (90 psig minimum)** What is the duration of the pressure test? **1 hour minimum (mains); 10 minutes minimum (services)**	X			
	Does the operator have any plastic pipe operating above 100 psig? **No** If yes, what date was this plastic pipe manufactured?			X	
.513	Do records indicate that all plastic lines are tested as required by the MFSS (150 % MAOP or 50 psig, whichever is greater)? **Yes** If yes, on what form? **Construction Completion Reports or Service Record Cards**	X			
.507	For steel pipe operating at 100 or more psig, what factor was used in determining your test pressure? **1.5x MAOP** Do records indicate that operator tested new steel pipelines operate at less than 30 % SMYS and at or above 100 psig? **Yes** Date(s) tested **7/19/16** Test with **Water** to **450** psig **17 hours** duration	X			
.509	Do records indicate that operator tested new steel mains to operate below 100 psig? Date(s) tested ____ Test with ____ to ____ psig **None recently**			X	

	.511	Do records indicate that all steel service lines are tested as required by the MFSS? If yes, on what form (name or number): **None recently**			X	
	.511	In testing "farm tap" services, is the inlet piping tested to maintain the MAOP of the gas line being tapped up to the regulator? What factor? **Not applicable** Test pressure? _____ psig			X	
	.517(a)	Each operator shall make, and retain for the useful life of the pipeline, a record of each test performed under 192.505 and 192.507	X			
	.517(b)	Each operator must maintain a record of each test required by 192.509, 192.511, and 192.513 for at least 5 years.	X			
	.805	Does operator have OQ records for person(s) performing these tasks? **Yes** Who is (are) the person(s) performing these tasks? **Hiwassee Construction Personnel: Jose Dominguez (qualified 12/23/14); Ricky Moore (qualified 11/20/14); Noberto Zavala (qualified 12/06/16); Sergio Wong (qualified 11/14/16); Robert Elliot (qualified 12/08/15) (3-year task)**	X			

Comments:

Example Pressure Test Records:

N. Creek Rd – Main Extension (2/10/17): 48' of 2" PE pipe tested at 110 psig for 1 hour with air

Adams St – Main Extension (12/13/16): 335' of 2" PE pipe tested at 115 psig for 2 hours with air

Jefferson St – Main Extension (11/21/16): 340' of 2" PE pipe tested at 115 psig for 1.5 hours with air

W. Mississippi Ave – Main Extension (7/27/16): 266' of 2" PE pipe tested at 120 psig for 1 hour with air

Volkswagon Dr – Gestamp Main Extension (7/19/16): 2,723' of 4" steel pipe tested at 450 psig for 17 hours with water

Marlboro Ave – Main Exension (1/26/16): 406' of 2" PE pipe tested at 117 psig for 15 hours with air

Adams St – Main Extension (10/29/15): 110' of 2" PE pipe tested at 111 psig for 1.5 hours with air

9365 Chirping Rd (8/22/17): 62' of 0.5" PE service line tested at 90 psig for 10 minutes with air

9024 Vintage Lane (8/18/17): 62' of 0.5" PE service line tested at 100 psig for 15 minutes with air

8522 Hixson Pike (8/22/17): 185' of 1.25" PE service line tested at 110 psig for 15 minutes with air

Example Excavation Damage Repair Records: Refer to Damage Prevention section for examples

.605(a)	ODORIZATION of GAS PROCEDURES		S	U	N/A	N/C
	.625(a)	Distribution lines must contain odorized gas. – must be readily detectable by person with normal sense of smell at $^1/_5$ of the LEL. **OM – Division II, Section 15.3.1 (pp. 329-330)**	X			
	.625(f)	Periodic gas sampling, using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable. **OM – Division II, Section 15.5.2 (p. 332)**	X			

	ODORIZATION of GAS RECORDS					
	.625	Name of natural gas supplier(s): **Enbridge Inc. (formerly Spectra Energy)** Is gas odorized by supplier(s)? **No** If yes, where? If no, by who? **Operator** Supplier's injection rates (lbs/MMCF)? **N/A**	X			
	.625	Number and type(s) of odorant application system(s)? **12 (Injection)**	X			

	.625	Are periodic samples of combustible gases taken to assure the concentration of odorant? **Yes**					

Frequency	Monthly	
Type of instrument	Heath Odorator	
Last calibration date	6/26/17; 1/12/17 (2 units)	
Location	**Dates Tested**	**Odorant Level**
Lee College	July 2017	0.46
Lee College	June 2017	0.48
Lee College	May 2017	0.51
Lee College	April 2017	0.47
Lee College	March 2017	0.47
Lee College	February 2017	0.47
Lee College	January 2017	0.56
Lee College	December 2016	0.45

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X

	.625(e)	Is an odorant usage calculation being maintained? **Yes** Frequency: **Monthly**					

Location	**Date**	**Lbs/ MMCF**
Hickory Valley Road	August 2017	0.582
Hickory Valley Road	July 2017	0.567
Hickory Valley Road	June 2017	0.550
Hickory Valley Road	May 2017	0.582
Hickory Valley Road	April 2017	0.577
Hickory Valley Road	March 2017	0.587
Hickory Valley Road	February 2017	0.564
Hickory Valley Road	January 2017	0.538

To add rows, press TAB with cursor in last cell.

X

	.625	Do you have any customers who are receiving unodorized gas? **No**				X	
	.805	Does the operator have OQ records for the person(s) performing this task? **Yes** Who is (are) the person(s) performing this task? **Kim Norwood (qualified 9/23/15) (3-year task)**	X				

Comments:
The operator bases its odorant "sniff" tests on an LEL of 4%.

.605(a)	TAPPING PIPELINES UNDER PRESSURE PROCEDURES		S	U	N/A	N/C
	.627	Hot taps must be made by a qualified crew **OM – Division II, Sections 20.1; 20.2 (pp. 379-380)** **NDT** testing is suggested prior to tapping the pipe. Reference API RP 2201 for **Best Practices.**	X			

Comments:
Does operator make hot taps? **Yes** **Tapping (Steel Pipe)**

Hiwassee Construction Personnel: Jose Dominguez (qualified 12/23/14); Billy Mason (qualified 3/13/15); John Sheeley (qualified 10/03/14) (3-year task)

.605(a)	PIPELINE PURGING PROCEDURES		S	U	N/A	N/C
	.629	Purging of pipelines must be done to prevent entrapment of an explosive mixture in the pipeline				
		(a) Lines containing air must be properly purged. **OM – Division III, Section 8.4 (pp. 833-834)**	X			
		(b) Lines containing gas must be properly purged. **OM – Division III, Section 8.5 (p. 834-835)**	X			

		PIPELINE PURGING RECORDS				
	.629(a)	If gas, in the purging of pipelines, cannot be supplied in sufficient quantity to prevent the formation of a hazardous mixture of gas and air, what is the purging medium? **Nitrogen**	X			
	.805	Does the operator have OQ records for the person(s) performing this task? **Yes** Who is (are) the person(s) performing this task? **Hiwassee Construction Personnel: Ricky Moore (qualified 11/20/14); Jose Dominguez (qualified 12/23/14); Roberto Zavala (qualified 12/06/16); Sergio Wong (qualified 11/14/16); Robert Elliot (qualified 12/08/15) (3-year task)**	X			

Comments:

.605(a)		MAINTENANCE PROCEDURES	S	U	N/A	N/C
	.703(b)	Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from Service **OM – Division II, Section 6.1 (p. 161)**	X			
	(c)	Hazardous leaks must be repaired promptly **OM – Division II, Sections 4.4 (p. 93); 6.1 (p. 161)**	X			

Comments:

.605(b)		DISTRIBUTION SYSTEM PATROLLING & LEAKAGE SURVEY PROCEDURES	S	U	N/A	N/C
	.721(a)	Frequency of patrolling mains must be determined by the severity of the conditions which could cause failure or leakage (i.e., consider cast iron, weather conditions, known slip areas, etc.) **OM – Division II, Section 2.3 (p. 36)**	X			
	.721(b)	Mains in places or on structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled . . .				
	(b)(1)	In business districts at intervals not exceeding 4½ months, but at least four times each calendar year; and **OM – Division II, Section 2.3 (p. 36)**	X			
	(b)(2)	Outside business districts at intervals not exceeding 7½ months, but at least twice each calendar year **OM – Division II, Section 2.3 (p. 36)**	X			
	.723(a) & (b)	Periodic leak surveys determined by the nature of the operations and conditions. **OM – Division II, Section 4.1 (p. 81)**	X			
	(b)(1)	In business districts as specified, **1/yr (15 months)** **OM – Division II, Section 4.1.1(D) (pp. 83-84)**	X			
	(b)(2)	Outside of business districts as specified, once every 5 calendar years/63 mos.; for unprotected lines subject to .465(e) where electrical surveys are impractical, once every 3 years/39 mos. **OM – Division II, Section 4.1.1(E, F) (p. 84)**	X			

		DISTRIBUTION SYSTEM PATROLLING & LEAKAGE SURVEY RECORDS	S	U	N/A	N/C
	.721 & .327	Do you have any submerged mains in navigable waterways and/or other areas where washout is possible? **Yes (creek crossings)**	X			
	.805	Does the operator have OQ records for the person(s) performing these task? **Yes** Who is (are) the person(s) performing this task? **Scotty Davis (qualified 5/08/16); Josh Howard (qualified 10/19/13) (5-year task)**	X			
	.723	Is your system located inside or outside a business district or city limits area? **Both**	X			

.723	If located inside business district, have you conducted a leak survey at intervals not exceeding fifteen months, but at least once each calendar? **Yes**									X		

Inside Business District								
Most Recent Survey					Previous Survey			
Date		2016			Date		2015	
By		Southern Cross			By		Southern Cross	
Found		Repaired			Found		Repaired	
ABV	BLW	ABV	BLW		ABV	BLW	ABV	BLW
3	30	3	30	Grade I	2	23	2	23
3	28	3	32	Grade II	1	18	2	15
562	46	507	67	Grade III	316	15	540	40
568	**104**	**513**	**129**	Total	**319**	**56**	**544**	**78**

.723	If located outside business district, have you conducted a leak survey at least once every 5 calendar years, but at intervals not exceeding 63 months? **Yes**									X		

Outside Business District				
Date	2016			
By	Southern Cross			
	Found		Repaired	
	ABV	BLW	ABV	BLW
Grade I	4	17	4	17
Grade II	4	35	3	35
Grade III	513	27	896	46
Total	**521**	**79**	**903**	**98**

.13(c) .703(c)	Have all Grade I (hazardous) leaks been repaired in accordance with Operator's O & M Manual? **Yes**	X				
.605	Have all leaks been repaired as specified in the operator's O & M procedures? **Yes**	X				
.805	Does the operator have OQ records for the person(s) performing these tasks? **Yes** Who is (are) the person(s) performing this task? **Southern Cross Personnel: Syed Ali (qualified 12/21/16); Louis Asmer (qualified 7/13/16); James Carr (qualified 10/15/14); Dennis Hammonds (qualified 10/29/14); Dustin McBrayer (qualified 7/11/17); Henry Ruff (qualified 3/02/17) (3-year task)**	X				

Comments:

Dates locations were patrolled General patrolling of mains is conducted on a monthly basis throughout the year
Leak repair records OK; Documented on Work Orders and electronically in Asset Depository system; Grade 1 leaks repaired promptly; Grade 2 leaks repaired within 12 months; Grade 3 leaks repaired or monitored

Number of Services Surveyed:
Business District: 9,760 (2016); 9,043 (2015); 9,010 (2014); 9,052 (2013); 9,291 (2012)
Outside: 12,005 (2016); 12,213 (2015); 11,795 (2014); 10,684 (2013); 13,493 (2012)

The repair time specified in the O&M Manual for Grade 2 leaks (Division II, Section 4.6.1; p. 109) needs to be revised to be consistent with the requirements of TPUC Rule 1220-4-5-.44 (i.e., must be scheduled for repair within 12 months, not 15 months; or rechecked during the next annual survey).

.605(b)	LINE MARKER PROCEDURES	S	U	N/A	N/C
.707	Line markers installed and labeled as required. **OM – Division III, Sections 10.2-10.5 (p. 859-861)**	X			

	.707	Are pipeline markers maintained and installed at the following as required: a) All public roads and railroad crossings. b) Mains on public right-of-way in Class I and II locations. c) At any location where identification may reduce possibility of damage or interference, i.e., regulator station, bridge and river. d) What information is printed on the markers? "Warning" ☒ Telephone # ☒ "Caution" ☒ "Gas Pipeline" ☒ "Danger" ☐ Operator's name ☒ TN 1-Call # ☒	X			

Comments:

.605(b)	TEST REQUIREMENTS FOR REINSTATING SERVICE LINES	S	U	N/A	N/C
	.725(a) Except for .725(b), disconnected service lines must be tested the same as a new service line. OM – Division II, Section 10.1 (p. 287)	X			
	(b) Service lines that are temporarily disconnected must be tested from the point of disconnection, the same as a new service line, before reconnect. See code for exception to this. OM – Division II, Section 10.2 (p. 287)	X			

.603(b)	TEST RECORDS FOR REINSTATING SERVICE LINES	S	U	N/A	N/C
	.725 Tests for reinstating service lines Do not do			X	

Comments:

.605(b)	ABANDONMENT or DEACTIVATION of FACILITIES PROCEDURES	S	U	N/A	N/C
	.727(b) Operator must disconnect both ends, purge, and seal each end before abandonment or a period of deactivation where the pipeline is not being maintained. Offshore abandoned pipelines must be filled with water or an inert material, with the ends sealed (PHMSA Advisory Bulletin ADB-2016-05) OM – Division II, Section 9.1.1 (p. 275)	X			
	(c) Except for service lines, each inactive pipeline that is not being maintained under Part 192 must be disconnected from all gas sources/supplies, purged, and sealed at each end. OM – Division II, Section 9.1.1 (p. 275)	X			
	(d) Whenever service to a customer is discontinued, do the procedures indicate one of the following:				
	(1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator OM – Division III, Section 12.7(a) (p. 885)	X			
	(2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly OM – Division III, Section 12.7(b) (p. 885)	X			
	(3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed OM – Division III, Section 12.7(c) (p. 885)	X			
	(e) If air is used for purging, the operator shall ensure that a combustible mixture is not present after Purging OM – Division III, Sections 8.1 (p. 831); 8.10.6 (pp. 843-844)	X			
	.727(g) Operator must file reports upon abandoning underwater facilities crossing navigable waterways, including offshore facilities.			X	

.727	ABANDONMENT or DEACTIVATION of FACILITIES RECORDS	S	U	N/A	N/C
	Have you abandoned any pipeline facilities in the past year? Yes (PHMSA Advisory Bulletin ADB-2016-05) If yes, where: See comments below	X			
	Does the operator have line abandonment documentation? Yes	X			

	Underwater facility reports in the past year?			X	
	When facilities are abandoned/deactivated: (1) Are pipelines abandoned in place? **Yes** (2) Are lines purged and sealed? **Yes**	X			
.805	Does the operator have OQ records for the person(s) performing this task? **Yes** Who is (are) the person(s) performing this task? **Hiwassee Construction Personnel: John Sheeley (qualified 8/23/13); Miguel Dominguez (qualified 10/12/12); Paul Lanier (qualified 9/27/16); David Bredwell (qualified 3/17/15); Carlon Baker (qualified 9/28/16) (5-year task)**	X			

Comments:

Example Abandonment Records:

Dayton Blvd (5/23/17): 15,783' total of steel main retired (2", 4", and 8"); Purged and sealed (capped) at both ends

Forest Plaza Dr (6/26/17): 5,820' of 2" steel main retired; Purged and sealed (capped) at both ends

Ringgold Rd (6/06/17): 9,614' total of steel main retired (2", 4", and 8"); Purged and sealed (capped) at both ends

932 Beard Circle (9/21/17); 63' of 0.75" steel service line retired; Purged and sealed (capped) at both ends

.605(b)	PRESSURE LIMITING and REGULATING STATION PROCEDURES	S	U	N/A	N/C
.739(a)	Inspection and testing procedures for pressure limiting stations, relief devices, pressure regulating stations and equipment (**1 per yr/15 months**) **OM – Division II, Sections 12.1.1 (p. 295); 12.3 (p. 297)**	X			
	(1) In good mechanical condition **OM – Division II, Section 12.1.1(a) (p. 295)**	X			
	(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is Employed **OM – Division II, Section 12.1.1(b) (p. 295)**	X			
	(3) Set to control or relieve at correct pressures consistent with .201(a), except for .739(b). **OM – Division II, Section 12.1.1(c) (p. 295)**	X			
	(4) Properly installed and protected from dirt, liquids, and other conditions that may prevent proper operation **OM – Division II, Section 12.1.1(d) (p. 295)**	X			
.739(b)	For steel lines if MAOP is determined per .619(c) and the MAOP is 60 psi (414 kPa) gage or more . . .				
	If MAOP produces hoop stress that … Then the pressure limit i :				
	Is greater than 72 percent of SMYS … MAOP plus 4 percent			X	
	Is unknown as a percent of SMYS … A pressure that will prevent unsafe operation of the pipeline considering its operating and maintenance history and MAOP				
.741	Telemetering or Recording Gauges				
	(a) In place to indicate gas pressure in the district that is supplied by more than one regulating station **OM – Division III, Section 6.10.1 (p. 723)**	X			
	(b) Determine the need in a distribution system supplied by only one district station **OM – Division III, Section 6.10.2 (p. 724)** **Note: Not applicable**			X	
	(c) Inspect equipment and take corrective measures when indications of abnormally high or low Pressure **OM – Division II, Section 12.5 (p. 303)**	X			
.743	Testing of Relief Devices				
.743(a)	Capacity must be consistent with .201(a) except for .739(b), and be determined **1 per yr/15 mo.** **OM – Division II, Section 12.1.2 (p. 295)**	X			
	(b) If calculated, capacities must be compared; annual review and documentation are required. **OM – Division II, Section 12.1.2 (p. 295)**	X			
	(c) If insufficient capacity, new or additional devices must be installed to provide required capacity. **OM – Division II, Section 12.1.2 (p. 296)**	X			

	PRESSURE LIMITING and REGULATING STATION RECORDS	S	U	N/A	N/C
.739	Total number of regulator stations in the system (including taps): **138** Number in vaults: **64 (Open pits; Not covered; Inspected annually, however)** Frequency of inspection: **Annually** Last inspection date: **Inspected on a monthly basis throughout the year**	X			
.739	Pressure Limiting and Regulating Stations (1 per yr/15 months)	X			
.195	Are regulator stations set up as monitors without relief valves? **Yes** If yes, how many? **31**	X			

		Have procedures for inspection of commercial and industrial pressure limiting or regulating meter sets been established? **Yes**	X			
	.741	Are telemetering and/or recording gages installed within your system? **Yes** If yes, are they calibrated or inspected in accordance with your O&M? **Yes** Frequency of inspection: **Inspected weekly; Calibrated annually**	X			
		Does the operator have electronic pressure meters? **Yes**	X			
	.743	Pressure Limiting and Regulator Stations – Capacity check(1 per yr/15 months)	X			
	.805	Does the operator have OQ records for the person(s) performing these tasks? **Yes** Who is (are) the person(s) performing this task? **Scott Keith (qualified 6/10/16); Mark Roy (qualified 6/20/16) (3-year task)**	X			

Comments:

.605(b)	VALVE AND VAULT MAINTENANCE PROCEDURES		S	U	N/A	N/C
	.747	(a) Check and service each valve that may be necessary for the safe operation of a distribution system **(1 per yr/15 months) OM – Divison II, Section 11.1 (p. 289)**	X			
		(c) Prompt remedial action required, or designate alternative valve. **OM – Division II, Section 11.1 (p. 289)**	X			
	.749	Inspection of vaults greater than **200 cubic feet** and housing pressure regulating or limiting devices **(1 per yr NTE 15 months). OM – Division II, Section 12.1.3 (p. 296)**	X			

		VALVE AND VAULT MAINTENANCE RECORDS				
	.747	Has the operator designated valves that can sectionalize portions of each system in case of emergency? **Yes** If yes, number of Critical Valves: **390**	X			
	.747	Valve Maintenance Distribution Lines (1 per yr/15 months) **Inspected on a monthly basis throughout the year**	X			
		Are non-critical valves checked and serviced? Frequency: **Not applicable; All designated as critical**			X	
		Have any non-critical valves been operated in response to a potential emergency situation? **No** Were these valves added to the critical list?			X	
	.805	Does the operator have OQ records for the person(s) performing this task? **Yes** Who is (are) the person(s) performing this task? **Mark Roy (qualified 4/10/13); Scott Keith (qualified 4/29/13) (5-year task)**	X			
	.53 & .357	Are any customer meters located under a crawl space or inside building walls? **Yes**	X			
		How many customer-owned service lines are in your system? **Several**	X			
	.16	Have these customer(s) been notified that it's their responsibility to maintain these lines? **Yes** If yes, how were customers notified? **New customer letter** Have new customers been notified? **Yes**	X			
	379 & .727(d)	Is each valve that is closed to prevent the flow of gas to a customer provided with a locking device to prevent the opening of the valve by persons other than those authorized? **Yes** If yes, type/model locking device: **Barrel Locks**	X			
		Do written procedures clearly indicate when a meter set is to be locked off? **Yes** After notification, in what amount of time is this to be done? **45** days	X			
.709	.749	Vault Maintenance **(>200 cubic feet)(1 per yr/15 months)**	X			

Comments:
6 valves in vaults **(manholes; confined spaces)**

.605(b)	PREVENTION of ACCIDENTAL IGNITION PROCEDURES		S	U	N/A	N/C
	.751	Reduce the hazard of fire or explosion by:				
		(a) Removal of ignition sources in presence of gas and providing for a fire extinguisher **OM – Division II, Section 19.2.4 (p. 372)**	X			

.605(b)	PREVENTION of ACCIDENTAL IGNITION PROCEDURES	S	U	N/A	N/C
	(b) Prevent welding or cutting on a pipeline containing a combustible mixture **OM – Division II, Section 19.2.2 (p. 370); Division IV, Section 1.2.1(f) (p. 983)**	X			
	(c) Post warning signs **OM – Division II, Section 19.2.5 (p. 372)**	X			

.603 (b)	PREVENTION of ACCIDENTAL IGNITION RECORDS		S	U	N/A	N/C
	.751	Prevention of Accidental Ignition (hot work permits)			X	

Comments:

.605(b)	CAULKED BELL AND SPIGOT JOINTS PROCEDURES		S	U	N/A	N/C
	.753	Cast-iron caulked bell and spigot joint repair:				
		(a) When subject to more than 25 psig, sealed with mechanical clamp, or sealed with material/device which does not reduce flexibility, permanently bonds, and seals and bonds as prescribed in §192.753(a)(2)(iii) **OM – Division III, Section 2.1.2(d) (p. 444) Note: Not applicable**			X	
		(b) When subject to 25 psig or less, joints, when exposed for any reason, must be sealed by means other than caulking **OM – Division II, Section 6.6 (p. 167) Note: Not applicable**			X	

	CAULKED BELL AND SPIGOT JOINTS RECORDS		S	U	N/A	N/C
.603(b)	.755	Caulked Bell and Spigot Joint Repair			X	

.605(b)	PROTECTING CAST-IRON PIPELINE PROCEDURES		S	U	N/A	N/C
	.755	Operator has knowledge that the support for a segment of a buried cast-iron pipeline is disturbed must provide protection.				
		(a) Vibrations from heavy construction equipment, trains, trucks, buses or blasting? **OM – Division II, Section 3.11(a) (p. 70)**	X			
		(b) Impact forces by vehicles? **OM – Division II, Section 3.11(b) (p. 70)**	X			
		(c) Earth movement? **OM – Division II, Section 3.11(c) (p. 71)**	X			
		(c) Other foreseeable outside forces which might subject the segment of pipeline to a bending stress **OM – Division II, Section 3.11(e) (p. 71)**	X			
		(d) Provide permanent protection for the disturbed section as soon as feasible **OM – Division II, Section 3.11.2 (pp. 71-72)**	X			

.13(c)	WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES		S	U	N/A	N/C
	.225	(a) Welding procedures must be qualified under **Section 5 of API 1104** or **Section IX of ASME Boiler and Pressure Code** by destructive test. **OM – Division IV, Sections 1.3 (p. 984); 2.1 (p. 1005)**	X			
		(b) Retention of welding procedure – details and test **OM – Division IV, Sections 2.1 (p. 1005); 2.3 (p. 1011)**	X			
	.227	(a) Welders must be qualified by **Section 6 of API 1104 (19th Ed., 1999, including errata October31, 2001; and 20th edition 2007, including errata 2008)** or **Section IX of ASME Boiler and Pressure Code** (2004 ed. Including addenda through July 1, 2005) See exception in .227(b). **OM – Division IV, Section 2.2 (p. 1005)**	X			
		(b) Welders may be qualified under **section I of Appendix C** to weld on lines that operate at **< 20%** SMYS. **Not applicable**			X	
	.229	(b) Welder must have used welding process within the preceding **6 months** **OM – Division IV, Section 2.2.3 (p. 1011)**	X			
		(c) A welder qualified under .227(a)–				

.13(c)	WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES	S	U	N/A	N/C
	(1) May not weld on pipe that operates at ≥ 20% SMYS unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under the **sections 6 or 9 of API Standard 1104**; may maintain an ongoing qualification status by performing welds tested and found acceptable at least **twice per year**, not exceeding **7½ months**; may not requalify under an earlier referenced edition. **OM – Division IV, Section 2.2.4 (p. 1011)**	X			
	(2) May not weld on pipe that operates at < 20% SMYS unless is tested in accordance with .229(c)(1) or requalifies under .229(d)(1) or (d)(2). **OM – Division IV, Section 2.2.4 (p. 1011)**	X			
	(d) Welders qualified under .227(b) may not weld unless: **Not applicable**				
	(1) Requalified within **1 year/15 months**, or			X	
	(2) Within **7½ months** but at least **twice per year** had a production weld pass a qualifying test			X	
.231	Welding operation must be protected from weather **OM – Division IV, Sections 1.3 (p. 984); 1.3.11 (p. 987)**	X			
.233	Miter joints **(consider pipe alignment) OM – Division IV, Section 1.3.10 (p. 987)**	X			
.235	Welding preparation and joint alignment **OM – Division IV, Sections 1.4.4 (p. 994); 1.3.13(A)(1) (p. 988)**	X			
.241	(a) Visual inspection must be conducted by an individual qualified by appropriate training and experience to ensure: **OM – Division IV, Section 3.1.1 (p. 1017)**	X			
	(1) Compliance with the welding procedure **OM – Division IV, Section 3.1.1 (p. 1017)**	X			
	(2) Weld is acceptable in accordance with **Section 9 of API 1104** **OM – Division IV, Section 3.1.1 (p. 1017)**	X			
	(b) Welds on pipelines to be **operated at 20% or more of SMYS** must be nondestructively tested in accordance with **192.243** except welds that are visually inspected and approved by a qualified welding inspector if: **OM – Division IV, Section 3.1.2 (p. 1017)**	X			
	(1) The nominal pipe diameter is less than **6 inches**, or **OM – Division IV, Section 3.1.2 (p. 1017)**	X			
	(2) The pipeline is to operate at a pressure that produces a hoop stress of less than **40% of SMYS** and the welds are so limited in number that nondestructive testing is impractical **OM – Division IV, Section 3.1.2 (p. 1017)**	X			
.241	(c) Acceptability based on visual inspection or NDT is determined according to **Section 9 of API 1104.** If a girth weld is unacceptable under **Section 9** for a reason other than a crack, and if **Appendix A to API 1104** applies to the weld, the acceptability of the weld may be further determined under that appendix. **OM – Division IV, Section 3.1.1 (p. 1017)**	X			
	Repair and Removal of Weld Defects				
.245	(a) Each weld that is unacceptable must be removed or repaired. Except for offshore pipelines, a weld must be removed if it has a crack that is more than **8%** of the weld length **OM – Division IV, Section 3.1.5 (p. 1019)**	X			
	(b) Each weld that is repaired must have the defect removed down to sound metal, and the segment to be repaired must be preheated if conditions exist which would adversely affect the quality of the weld repair. After repair, the weld must be inspected and found acceptable. **OM – Division IV, Section 3.1.5 (p. 1019)**	X			
	(c) Repair of a crack or any other defect in a previously repaired area must be in accordance with a written weld repair procedure, qualified under **§192.225** **OM – Division IV, Section 3.1.5 (p. 1019)**	X			
	Note: Sleeve Repairs – use low hydrogen rod **(Best Practices –ref. API 1104 App. B, In Service Welding)**				

	WELDING RECORDS	S	U	N/A	N/C
.225(b)	Test Results to Qualify Welding Procedures	X			
.227	Welder Qualification	X			
.241 (a)	Visual Weld Inspector Training/Experience	X			

Comments:

Comments:

Certified Welder(s) are: Michael Bryson (qualified 7/10/17); Jacin Burns (qualified 6/08/17); Todd Davis (qualified 6/08/17); David Pate (qualified 5/25/17); Larry Taylor (qualified 7/25/17); Cyril Watnes (qualified 7/25/17); Paul Gunter – Hiwassee Construction (qualified 6/14/17)

Qualified Welding Procedure(s): BW 1.1 (SMAW – Manual Butt Weld; <2.375" OD; <0.188" wt; Qualified 12/08/08); BW 1.6 (SMAW – Manual Butt Weld; 2.375" – 12.75" OD; <0.188" wt; Qualified 4/30/09); BW 1.9 (SMAW – Manual Butt Weld; 2.375" – 12.75" OD; 0.188" – 0.75" wt; Qualified 8/12/10); FW 2.1 (SMAW – Manual Fillet Weld; All ODs; <0.188" wt; Qualified 12/18/08); FW 2.3 (SMAW – Manual Fillet Weld; All ODs; 0.188" – 0.75" wt; Qualified 12/18/08); OA 4.1 (Oxy-Acetylene – Manual Butt Weld; <2.375" OD; <0.188" wt; Qualified 10/25/10)

The operator's O&M Manual currently includes 34 qualified welding procedures (including the qualifying test results). The above are examples.

Contractors are qualified under the operator's qualified welding procedures.

.13(c)	NONDESTRUCTIVE TESTING PROCEDURES Note: Not applicable to Distribution		S	U	N/A	N/C
	.243	(a) Nondestructive testing of welds must be performed by any process, other than trepanning, that clearly indicates defects that may affect the integrity of the weld OM – Division IV, Section 3.1.4 (p. 1018)	X			
		(b) Nondestructive testing of welds must be performed:				
		(1) In accordance with a written procedure, and OM – Division IV, Section 3.1.4(A) (p. 1018)	X			
		(2) By persons trained and qualified in the established procedures and with the test equipment used OM – Division IV, Section 3.1.4(A) (p. 1018)	X			
		(c) Procedures established for proper interpretation of each nondestructive test of a weld to ensure acceptability of the weld under 192.241(c) OM – Division IV, Section 3.1.4(B) (p. 1019)	X			
		(d) When nondestructive testing is required under §192.241(b), the following percentage of each day's field butt welds, selected at random by the operator, must be nondestructively tested over the entire circumference				
		(1) In Class 1 locations at least 10% OM – Division IV, Section 3.1.2 (p. 1017)	X			
		(2) In Class 2 locations at least 15% OM – Division IV, Section 3.1.2 (p. 1017)	X			
		(3) In Class 3 and 4 locations, at crossings of a major navigable river, offshore, and within railroad or public highway rights-of-way, including tunnels, bridges, and overhead road crossings, 100% unless impractical, then 90%. Nondestructive testing must be impractical for each girth weld not tested. OM – Division IV, Section 3.1.2 (p. 1018)	X			
		(4) At pipeline tie-ins, 100% OM – Division IV, Section 3.1.2 (p. 1018)	X			
		(e) Except for a welder whose work is isolated from the principal welding activity, a sample of each welder's work for each day must be nondestructively tested, when nondestructive testing is required under §192.241(b) OM – Division IV, Section 3.1.2 (p. 1018)	X			
		(f) Nondestructive testing – the operator must retain, for the life of the pipeline, a record showing by mile post, engineering station, or by geographic feature, the number of welds nondestructively tested, the number of welds rejected, and the disposition of the rejected welds. OM – Division IV, Section 3.1.2 (p. 1018)	X			

	NONDESTRUCTIVE TESTING RECORDS	S	U	N/A	N/C
.243(b)(2)	NDT – NDT Personnel Qualifications			X	
.243(f)	NDT Records (Pipeline Life)			X	
	Repair: pipe(Pipeline Life; Other than pipe (5 years)			X	
.807(b)	Refer to PHMSA Form #15 to document review of operator's employee covered task records				

Comments:

.273(b)	JOINING of PIPELINE MATERIALS PROCEDURES			S	U	N/A	N/C
	.281	(a)	A plastic pipe joint that is joined by solvent cement, adhesive, or heat fusion may not be disturbed until it has properly set. Plastic pipe may not be joined by a threaded joint or miter joint. **OM – Division IV, Section 1.6.1 (p. 1001)**	X			
		(c)	Each solvent cement joint on plastic pipe must comply with the following: **Note: Not applicable**				
			(1) The mating surfaces of the joint must be clean, dry, and free of material which might be detrimental to the joint. **OM – Division IV, Section 1.6.1(B)(1) (p. 1002)**			X	
			(2) The solvent cement must conform to ASTM Designation: D 2513. **OM – Division IV, Section 1.6.1(B)(2) (p. 1002)**			X	
			(3) The joint may not be heated to accelerate the setting of the cement. **OM – Division IV, Section 1.6.1(B)(3) (p. 1002)**			X	
		(c)	Each heat-fusion joint on plastic pipe must comply with the following:				
			(1) A butt heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper alignment while the plastic hardens. **OM – Division IV, Section 1.6.1(A)(1) (p. 1001)**	X			
			(4) A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature. **OM – Division IV, Section 1.6.1(A)(2) (p. 1001)**	X			
			(5) An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of §192.283(a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. **OM – Division IV, Section 1.6.1(A)(3) (p. 1002)**	X			
			(6) Heat may not be applied with a torch or other open flame. **OM – Division IV, Section 1.6.1(A)(4) (p. 1002)**	X			
		(d)	Each adhesive joint on plastic pipe must comply with the following: **Note: Not applicable**				
			(1) The adhesive must conform to ASTM Designation: D 2517. **OM – Division IV, Section 1.6.1(C)(1) (p. 1002)**			X	
			(2) The materials and adhesive must be compatible with each other. **OM – Division IV, Section 1.6.1(C)(2) (p. 1002)**			X	
		(e)	Each compression type mechanical joint on plastic pipe must comply with the following:				
			(1)The gasket material in the coupling must be compatible with the plastic. **OM – Division IV, Section 1.6.1(D)(1) (p. 1002)**	X			
			(2) A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. **OM – Division IV, Section 1.6.1(D)(2) (p. 1002)**	X			
	.283	(a)	Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: **Note: Operator has adopted pre-qualified manufacturers' procedures for heat fusion (e.g., butt fusion, electrofusion)**				
			(1) The burst test requirements of–				
			(i) Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 **OM – Division IV, Section 6.2.1(a)(1) (p. 1184)**	X			
			(ii)Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or **OM – Division IV, Section 6.2.1(a)(2) (p. 1184)**	X			
			(iii) Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055. **OM – Division IV, Section 6.2.1(a)(3) (p. 1184)**	X			
			(2) For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, **OM – Division IV, Section 6.2.1(b) (p. 1184)**	X			
			(2)For procedures intended for non-lateral pipe connections, follow the tensile test requirements of ASTM D638, except that the test may be conducted at ambient temperature and humidity If the specimen elongates no less than 25 percent or failure initiates outside the joint area, the procedure qualifies for use. **OM – Division IV, Section 6.2.1(c) (p. 1184)**	X			

.273(b)	JOINING of PIPELINE MATERIALS PROCEDURES	S	U	N/A	N/C
	(b) Before any written procedure established under §192.273(b) is used for making mechanical plastic pipe joints that are designed to withstand tensile forces, the procedure must be qualified by subjecting five specimen joints made according to the procedure to the following tensile test: **Note: Operator follows manufacturers' procedures/instructions for use of mechanical joints/ fittings**				
	(1) Use an apparatus for the test as specified in ASTM D 638 (except for conditioning). **OM – Division IV, Section 6.2.2(a) (p. 1185)**	X			
	(2) The specimen must be of such length that the distance between the grips of the apparatus and the end of the stiffener does not affect the joint strength. **OM – Division IV, Section 6.2.2(b) (p. 1185)**	X			
	(3) The speed of testing is 0.20 in. (5.0 mm) per minute, plus or minus 25 percent. **OM – Division IV, Section 6.2.2(c) (p. 1185)**	X			
	(4) Pipe specimens less than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area. **OM – Division IV, Section 6.2.2(d) (p. 1185)**	X			
	(5) Pipe specimens 4 inches (102 mm) and larger in diameter shall be pulled until the pipe is subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting. If the pipe pulls from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress. **OM – Division IV, Section 6.2.2(e) (p. 1185)**	X			
	(6) Each specimen that fails at the grips must be retested using new pipe. **OM – Division IV, Section 6.2.2(f) (p. 1185)**	X			
	(7) Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness. **OM – Division IV, Section 6.2.2(g) (p. 1185)**	X			
	(c) A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints. **OM – Division IV, Sections 6.1 (p. 1181); 7.9 (p. 1214)**	X			
	(d) Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe. **OM – Division IV, Section 6.1 (p. 1181)**	X			
.285	(a) No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by:				
	(1) Appropriate training or experience in the use of the procedure; and **OM – Division IV, Section 7.1 (p. 1209)**		X		
	(2) Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section. **OM – Division IV, Section 7.1 (p. 1209)**		X		
	(b) The specimen joint must be:				
	(1) Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and **OM – Division IV, Section 7.2(a) (p. 1209)**		X		
	(2) In the case of a heat fusion, solvent cement, or adhesive joint; **OM – Division IV, Section 7.2(b) (p. 1209)**		X		
	(i) Tested under any one of the test methods listed under §192.283(a) applicable to the type of joint and material being tested; **OM – Division IV, Section 7.2(b)(1) (p. 1209)**		X		
	(iii) Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or **OM – Division IV, Section 7.2(b)(2) (p. 1209)**		X		
	(iv) Cut into at least three longitudinal straps, each of which is: **OM – Division IV, Section 7.2(b)(3) (p. 1210)**				
	(A) Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and **OM – Division IV, Section 7.2(b)(3)(a) (p. 1210)**		X		
	(B) Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area. **OM – Division IV, Section 7.2(b)(3)(b) (p. 1210)**		X		
	(c) A person must be re-qualified under an applicable procedure, once each calendar year at intervals not exceeding 15 months, or after any production joint is found unacceptable by testing under §192.513. **OM – Division IV, Sections 1.6.1(E) (p. 1003); 7.6 (p. 1213)**		X		
	(e) Each operator shall establish a method to determine that each person making joints in plastic pipelines in the operator's system is qualified in accordance with this section. **OM – Division IV, Sections 1.6.1 (p. 1001); 7.1 (p. 1209)**		X		

.273(b)	JOINING of PIPELINE MATERIALS PROCEDURES	S	U	N/A	N/C
	.287 No person may carry out the inspection of joints in plastic pipes required by §§192.273(c) and 192.285(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure. **OM – Division IV, Section 1.6.1 (p. 1001)**		X		

	JOINING OF PIPELINE MATERIALS RECORDS	S	U	N/A	N/C
.273/.283	Qualified Joining Procedures Including Test Results		X		
.285	Personnel Joining Qualifications		X		
.287	Joining Inspection Qualifications		X		
	.805 Does the operator have OQ records for the person(s) performing this task? **Yes** Who is (are) the person(s) performing this task? Heat Fusion (e.g., Butt Fusion): Darrell Hembree (qualified 1/11/17); David Smith (qualified 1/06/17); Justin Harris (qualified 1/11/17); Fredrick Sherk (qualified 1/11/17) **Electrofusion: Records show Darrell Hembree (qualified 1/06/17); David Smith (qualified 1/06/17); Justin Harris (qualified 1/11/17); Fredrick Sherk (qualified 1/06/17); however these records are inaccurate regarding the complete qualification required by Tennessee and Federal regulations. The field qualification was not completed; only the written qualification was completed.** Mechanical Fittings: Darrell Hembree (qualified 1/06/17); David Smith (qualified 1/06/17); Justin Harris (qualified 1/11/17); Fredrick Sherk (qualified 1/06/17) **(1-year tasks)**		X		

Comments:

Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, annual qualification of personnel to perform joining of plastic pipe and fittings by electrofusion does not currently include visual inspection and destructive testing of a specimen joint, as required by §192.285(a)(2) and §192.285(b). The operator representative indicated that the field qualifications have never performing and an actual fuse, with testing and inspector visual confirmation. In addition, it is unclear if the individual responsible for operator qualification of personnel and inspection of fusion on the pipeline was or is qualified as required.

The sections of the O&M Manual regarding qualification of personnel to perform joining of plastic pipe and fittings by electrofusion (i.e., Division IV, Section 7.1 (p. 1209); Division IV, Section 7.2 (p. 1210); Division IV, Section 7.5 (pp. 1212-1213)) need to be revised to be consistent with code requirements. Currently, the O&M Manual states that visual inspection and destructive testing of a specimen joint for qualification of personnel to make electrofusion joints is only required in the State of Florida. Per §192.285(a)(2) and §192.285(b), qualification of personnel to make heat fusion (including electrofusion) joints for plastic pipe requires that such personnel make a specimen joint which passes a visual inspection and destructive test is required. The minimum federal safety standards apply in the State of Tennessee.

The operator has adopted manufacturers' pre-qualified procedures for making heat fusion (e.g., butt fusion, electrofusion) joints. It also follows manufacturers' instructions for use of mechanical fittings for joining of plastic pipe. The operator is reminded that complete copies of the manufacturers' pre-qualified procedures and instructions should be readily available. A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints (per §192.283(c)). However, **personnel are not qualified according to regulations and with use of the manufacturer's procedures.**

.605(b)	CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
	.453 Are corrosion procedures established and carried out by or under the direction of a qualified person for:				
	• Design **Division III, Section 7.1 (p. 735)**	X			
	• Operations **Division II, Section 8.1.3 (p. 202)**	X			
	• Installation **Division III, Section 7.1 (p. 735)**	X			
	• Maintenance **Division II, Section 8.1.3 (p. 202)**	X			

.605(b)		CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
	.455	(a) For pipelines installed **after July 31, 1971**, buried segments must be externally coated and (b) cathodically protected within **one year** after construction (see exceptions in code) **OM – Division III, Section 7.2.2 (p. 736)**	X			
		(c) Aluminum may not be installed in a buried or submerged pipeline if exposed to an environment with a natural **pH in excess of 8** (see exceptions in code) **OM – Division III, Section 7.2.4 (p. 737)** **Note: Not applicable**			X	
	.457	(b) If installed **before August 1, 1971**, cathodic protection must be provided in areas of active corrosion for: bare or ineffectively coated transmission lines, and bare or coated c/s, regulator sta., meter sta. piping, and (except for cast iron or ductile iron) bare or coated distribution lines. **OM – Division III, Section 7.2.1 (p. 736)**	X			
	.459	Examination of buried pipeline when exposed: if corrosion is found, further investigation is required (Note: To include graphitization on cast iron or ductile iron pipe. NTSB B.7) **OM – Division II, Section 8.16 (p. 247)**	X			
	.461	Procedures must address the protective coating requirements of the regulations. External coating on the steel pipe must meet the requirements of this part. **OM – Division III, Sections 7.5 (pp. 741-742); 3.16.2 (pp. 486-487)**	X			
	.463	Cathodic protection level according to **Appendix D** criteria **OM – Division II, Section 8.2.2 (pp. 203-204)**	X			
	.465	(a) Pipe-to-soil monitoring **(1 per yr/15 months)** or short sections **(10% per year, all in 10 years)** **OM – Division II, Section 8.2 (p. 202)**	X			
		(b) Rectifier monitoring **(6 per yr/2½ months)** **OM – Division II, Sections 8.2 (p. 202); 8.7.1 (p. 221)**	X			
		(d) Interference bond monitoring **(as required)** **OM – Division II, Sections 8.2 (p. 203); 8.10.3 (p. 235)**	X			
		(e) Prompt remedial action to correct any deficiencies indicated by the monitoring **OM – Division II, Sections 8.1.3 (p. 202); 8.6 (p. 221)**	X			
	.465	(e) Electrical surveys (closely spaced pipe to soil) on bare/unprotected lines, cathodically protect active corrosion areas **(1 per 3 years/39 months)** **OM – Division II, Section 8.6 (p. 221)**	X			
	.467	Electrical isolation **(include casings)** **OM – Division III, Section 7.7.1 (p. 751)**	X			
	.469	Sufficient test stations to determine CP adequacy **OM – Division III, Section 7.15.1 (p. 795)**	X			
	.471	Test lead maintenance **OM – Division III, Section 7.15.2 (p. 795)**	X			
	.473	Interference currents **OM – Division II, Section 8.10 (pp. 233-235)**	X			
	.475	(a) Proper procedures for transporting corrosive gas?			X	
		(b) Removed pipe must be inspected for internal corrosion. If found, the adjacent pipe must be inspected to determine extent. Certain pipe must be replaced. Steps must be taken to minimize internal corrosion. **OM – Division II, Sections 8.21.1 (p. 259); 8.21.6 (p. 260)**	X			
	.477	Internal corrosion control coupon (or other suitable means) monitoring **(2 per yr/7½ months)** –			X	
	.479	(a) Each exposed pipe must be cleaned and coated (see exceptions under .479(c)) **OM – Division II, Section 8.22 (p. 261)**	X			
		Offshore splash zones and soil-to-air interfaces must be coated ***NEED TO ADD***		X		
		(b) Coating material must be suitable **OM – Division II, Section 8.22 (p. 261); Division III, Section 7.6.6 (p. 746)**	X			
		(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, the operator need not protect from atmospheric corrosion any pipeline for which the operator demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will-				
		(1) Only be a light surface oxide **OM – Division II, Section 8.22 (p. 261)** ***NEED TO REVISE TO NOTE SOIL-TO-AIR INTERFACES MUST BE PROTECTED***		X		
		(3) Not affect safe operation before next scheduled inspection **OM – Division II, Section 8.22 (p. 261)** ***NEED TO REVISE TO NOTE SOIL-TO-AIR INTERFACES MUST BE PROTECTED***		X		
	.481	(a) Atmospheric corrosion control monitoring **(1 per 3 yrs/39 months onshore; 1 per yr/15 months offshore)** **OM – Division II, Section 8.22 (p. 261)**	X			
	.481	(b) Special attention required at soil/air interfaces, thermal insulation, under disbonded coating, pipe supports, splash zones, deck penetrations, spans over water **OM – Division II, Section 8.23.6 (p. 264)**	X			
	.481	(c) Protection must be provided if atmospheric corrosion is found **(per §192.479)** **OM – Division II, Sections 8.22 (p. 261)**	X			
	.483	Replacement and required pipe must be coated and cathodically protected **OM – Division II, Section 8.24(a, b) (p. 271)**	X			

.273(b)	JOINING of PIPELINE MATERIALS PROCEDURES	S	U	N/A	N/C
	.287 No person may carry out the inspection of joints in plastic pipes required by §§192.273(c) and 192.285(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure. **OM – Division IV, Section 1.6.1 (p. 1001)**		X		

	JOINING OF PIPELINE MATERIALS RECORDS	S	U	N/A	N/C
.273/.283	Qualified Joining Procedures Including Test Results		X		
.285	Personnel Joining Qualifications		X		
.287	Joining Inspection Qualifications		X		
	.805 Does the operator have OQ records for the person(s) performing this task? **Yes** Who is (are) the person(s) performing this task? Heat Fusion (e.g., Butt Fusion): Darrell Hembree (qualified 1/11/17); David Smith (qualified 1/06/17); Justin Harris (qualified 1/11/17); Fredrick Sherk (qualified 1/11/17) **Electrofusion: Records show Darrell Hembree (qualified 1/06/17); David Smith (qualified 1/06/17); Justin Harris (qualified 1/11/17); Fredrick Sherk (qualified 1/06/17); however these records are inaccurate regarding the complete qualification required by Tennessee and Federal regulations. The field qualification was not completed; only the written qualification was completed.** Mechanical Fittings: Darrell Hembree (qualified 1/06/17); David Smith (qualified 1/06/17); Justin Harris (qualified 1/11/17); Fredrick Sherk (qualified 1/06/17) **(1-year tasks)**		X		

Comments:

Based on discussions with the operator and review of its electrofusion qualification procedures in its O&M Manual, annual qualification of personnel to perform joining of plastic pipe and fittings by electrofusion does not currently include visual inspection and destructive testing of a specimen joint, as required by §192.285(a)(2) and §192.285(b). The operator representative indicated that the field qualifications have never performing and an actual fuse, with testing and inspector visual confirmation. In addition, it is unclear if the individual responsible for operator qualification of personnel and inspection of fusion on the pipeline was or is qualified as required.

The sections of the O&M Manual regarding qualification of personnel to perform joining of plastic pipe and fittings by electrofusion (i.e., Division IV, Section 7.1 (p. 1209); Division IV, Section 7.2 (p. 1210); Division IV, Section 7.5 (pp. 1212-1213)) need to be revised to be consistent with code requirements. Currently, the O&M Manual states that visual inspection and destructive testing of a specimen joint for qualification of personnel to make electrofusion joints is only required in the State of Florida. Per §192.285(a)(2) and §192.285(b), qualification of personnel to make heat fusion (including electrofusion) joints for plastic pipe requires that such personnel make a specimen joint which passes a visual inspection and destructive test. The minimum federal safety standards apply in the State of Tennessee.

The operator has adopted manufacturers' pre-qualified procedures for making heat fusion (e.g., butt fusion, electrofusion) joints. It also follows manufacturers' instructions for use of mechanical fittings for joining of plastic pipe. The operator is reminded that complete copies of the manufacturers' pre-qualified procedures and instructions should be readily available. A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints (per §192.283(c)). **However, personnel are not qualified according to regulations and with use of the manufacturer's procedures.**

.605(b)	CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
	.453 Are corrosion procedures established and carried out by or under the direction of a qualified person for:				
	▪ Design **Division III, Section 7.1 (p. 735)**				
	▪ Operations **Division II, Section 8.1.3 (p. 202)**	X			
	▪ Installation **Division III, Section 7.1 (p. 735)**				
	▪ Maintenance **Division II, Section 8.1.3 (p. 202)**		X		

.605(b)	CORROSION CONTROL PROCEDURES		S	U	N/A	N/C
	.455	(a) For pipelines installed **after July 31, 1971**, buried segments must be externally coated and (b) cathodically protected within **one year** after construction (see exceptions in code) **OM – Division III, Section 7.2.2 (p. 736)**	X			
		(c) Aluminum may not be installed in a buried or submerged pipeline if exposed to an environment with a natural **pH in excess of 8** (see exceptions in code) **OM – Division III, Section 7.2.4 (p. 737)** **Note: Not applicable**			X	
	.457	(b) If installed **before August 1, 1971**, cathodic protection must be provided in areas of active corrosion for: bare or ineffectively coated transmission lines, and bare or coated c/s, regulator sta., meter sta. piping, and (except for cast iron or ductile iron) bare or coated distribution lines. **OM – Division III, Section 7.2.1 (p. 736)**	X			
	.459	Examination of buried pipeline when exposed: if corrosion is found, further investigation is required (Note: To include graphitization on cast iron or ductile iron pipe. NTSB B.7) **OM – Division II, Section 8.16 (p. 247)**	X			
	.461	Procedures must address the protective coating requirements of the regulations. External coating on the steel pipe must meet the requirements of this part. **OM – Division III, Sections 7.5 (pp. 741-742); 3.16.2 (pp. 486-487)**	X			
	.463	Cathodic protection level according to **Appendix D** criteria **OM – Division II, Section 8.2.2 (pp. 203-204)**	X			
	.465	(a) Pipe-to-soil monitoring **(1 per yr/15 months)** or short sections **(10% per year, all in 10 years)** **OM – Division II, Section 8.2 (p. 202)**	X			
		(b) Rectifier monitoring **(6 per yr/2½ months)** **OM – Division II, Sections 8.2 (p. 202); 8.7.1 (p. 221)**	X			
		(d) Interference bond monitoring **(as required)** **OM – Division II, Sections 8.2 (p. 203); 8.10.3 (p. 235)**	X			
		(e) Prompt remedial action to correct any deficiencies indicated by the monitoring **OM – Division II, Sections 8.1.3 (p. 202); 8.6 (p. 221)**	X			
	.465	(e) Electrical surveys (closely spaced pipe to soil) on bare/unprotected lines, cathodically protect active corrosion areas **(1 per 3 years/39 months)** **OM – Division II, Section 8.6 (p. 221)**	X			
	.467	Electrical isolation **(include casings)** **OM – Division III, Section 7.7.1 (p. 751)**	X			
	.469	Sufficient test stations to determine CP adequacy **OM – Division III, Section 7.15.1 (p. 795)**	X			
	.471	Test lead maintenance **OM – Division III, Section 7.15.2 (p. 795)**	X			
	.473	Interference currents **OM – Division II, Section 8.10 (pp. 233-235)**	X			
	.475	(a) Proper procedures for transporting corrosive gas?			X	
		(b) Removed pipe must be inspected for internal corrosion. If found, the adjacent pipe must be inspected to determine extent. Certain pipe must be replaced. Steps must be taken to minimize internal corrosion. **OM – Division II, Sections 8.21.1 (p. 259); 8.21.6 (p. 260)**	X			
	.477	Internal corrosion control coupon (or other suitable means) monitoring **(2 per yr/7½ months)** –			X	
	.479	(a) Each exposed pipe must be cleaned and coated (see exceptions under **.479(c)**) **OM – Division II, Section 8.22 (p. 261)**	X			
		Offshore splash zones and soil-to-air interfaces must be coated ***NEED TO ADD***		X		
		(b) Coating material must be suitable **OM – Division II, Section 8.22 (p. 261); Division III, Section 7.6.6 (p. 746)**	X			
		(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, the operator need not protect from atmospheric corrosion any pipeline for which the operator demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will-				
		(1) Only be a light surface oxide **OM – Division II, Section 8.22 (p. 261)** ***NEED TO REVISE TO NOTE SOIL-TO-AIR INTERFACES MUST BE PROTECTED***		X		
		(3) Not affect safe operation before next scheduled inspection **OM – Division II, Section 8.22 (p. 261)** ***NEED TO REVISE TO NOTE SOIL-TO-AIR INTERFACES MUST BE PROTECTED***		X		
	.481	(a) Atmospheric corrosion control monitoring **(1 per 3 yrs/39 months onshore; 1 per yr/15 months offshore)** **OM – Division II, Section 8.22 (p. 261)**	X			
	.481	(b) Special attention required at soil/air interfaces, thermal insulation, under disbonded coating, pipe supports, splash zones, deck penetrations, spans over water **OM – Division II, Section 8.23.6 (p. 264)**	X			
	.481	(c) Protection must be provided if atmospheric corrosion is found **(per §192.479)** **OM – Division II, Sections 8.22 (p. 261)**	X			
	.483	Replacement and required pipe must be coated and cathodically protected **OM – Division II, Section 8.24(a, b) (p. 271)**	X			

.605(b)		CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
	.487	Remedial measures (distribution lines other than cast iron or ductile iron) **OM – Division II, Sections 8.24.1(B) (p. 272); 8.24.2(B) (p. 273)**	X			
	.489	(a) Each segment of cast iron or ductile iron pipe on which general graphitization is found to a degree where a fracture or any leakage might result, must be replaced. **OM – Division II, Sections 8.24.1(C) (p. 272); 8.24.2(C) (p. 273)**	X			
		(b) Each segment of cast iron or ductile iron pipe where localized graphitization is found it must be assessed and remediated according to this subpart. **OM – Division II, Section 8.24.2(c) (p. 273)**	X			
	.491	Corrosion control maps and record retention (**pipeline service life or 5 yrs**) **OM – Division II, Section 21.4 (p. 390)**	X			

		CORROSION CONTROL PERFORMANCE AND RECORDS	S	U	N/A	N/C
.491	.491(a)	Maps or Records	X			
	.459	Examination of Buried Pipe when Exposed	X			
	.465(a)	Annual Pipe-to-soil Monitoring (**1 per yr/15 months**) for short sections (**10% per year; all in 10 years**)	X			
	.465(b)	Rectifier Monitoring (**6 per yr/2½ months**)	X			
	.465(c)	Interference Bond Monitoring – Critical (**6 per yr/2½ months**)			X	
	.465(c)	Interference Bond Monitoring – Non-critical (**1 per yr/15 months**)			X	
	.465(d)	Prompt Remedial Actions	X			
	.465(e)	Unprotected Pipeline Surveys, CP active corrosion areas (**1 per 3 cal yr/39 months**)	X			
	.467	Electrical Isolation (**Including Casings**)	X			
	.469	Test Stations – Sufficient Number	X			
	.471	Test Lead Maintenance	X			
	.473	Interference Currents	X			
	.475(a)	Internal Corrosion; Corrosive Gas Investigation			X	
	.475(b)	Internal Corrosion; Internal Surface Inspection; Pipe Replacement	X			
	.477	Internal Corrosion Control Coupon Monitoring (**2 per yr/7½ months**)			X	
	.481	Atmospheric Corrosion Control Monitoring (**1 per 3 cal yr/39 months onshore; 1 per yr/15 months offshore**)	X			
	.483	Remedial: Replaced or Repaired Pipe; coated and protected; corrosion evaluation and actions			X	
	.805	Does the operator have OQ records for the person(s) performing these tasks? **Yes** Who is (are) the person(s) performing this task? **Pipe-to-Soil Potentials Monitoring: Ricky Clements (qualified 1/19/17); Hasson Granado (qualified 6/02/17)** **Rectifier Inspections: Ricky Clements (qualified 8/07/13); Hasson Granado (qualified 6/21/17)** **Atmospheric Corrosion Control Monitoring: Chattanooga Gas Personnel: Janet Craig (qualified 2/12/14); Martha Green (qualified 2/12/14); Dana Thomas (qualified 2/12/14)** **Atmospheric Corrosion Control Monitoring: QM3 Utility Services, Inc. Personnel: Erica Rome (qualified 5/19/15); Liovanni Downer (qualified 1/22/15); Demetrius Durand (qualified 1/22/15); Ormar Edwards (qualified 1/22/15); Steven Gibson (qualified 1/22/15)** **(5-year tasks)**	X			

Comments:

The annual pipe-to-soil potentials surveys are performed by the operator. The surveys are conducted on a monthly basis at various locations throughout the year. This includes casings.

The operator surveys 10% of its isolated services each year.

Shorted casings are checked by the operator quarterly.

Rectifiers are inspected by the operator approximately every two (2) months.

Atmospheric corrosion control monitoring is performed on an ongoing basis by both the operator and a contractor (QM3 Utility

Comments:

Services, Inc.). All meter sets and risers (including inactive ones) are painted as necessary. Surveys are performed at least every 3 calendar years.

Part 40 And .199	DRUG TESTING PROCEDURES	S	U	N/A	N/C
.101	Is a Drug Plan meeting the requirements of Part 199 and Part 40 in place Yes **"AGL Resources Anti-Drug and Alcohol Misuse Prevention Plan – PHMSA Employees" (revised 2016)**	X			
.101	Who provides your anti-drug program? ☒ Operator ☐ Consortium Name of Consortium:	X			
	Has the operator made any major change(s) to its anti-drug program based upon the amended requirements to Part 40 and 199 effective 8/1/01? **Plan revised 2016**	X			
.105	List the number of covered employees and drug test performed in the past calendar year?	X			
.105	Is the annualized testing rate meeting the 25% requirement? Yes If yes, what is the rate? **36.7% (2016)**	X			
.117	Are records confirming required supervisor and employee training maintained? Yes Who has had the supervisory training? (199.117) **Michelle Wisz (3/24/16)**	X			
.115	Number of companies contracted to work for your organization in covered positions?	X			
.115	Do you or your company representatives inspect contractor drug plans for compliance with Part 199 and 40 of the MFSS? (199.115) Yes If yes, name of representative(s): **Michelle Wisz**	X			
.115	Are contractor drug and alcohol plans available for review? Yes	X			
.115	What are the contractor's annual random drug testing rates? **Hiwassee Construction Company: 26.2% (2016); Southeast Connections, LLC: 25.7% (2016); Hunter Utility Construction: 60% (2016); Southern Cross Corp: 32.5% (2016); QM3 Utility Services, Inc.: 24.4% (2016); United States Infrastructure Corporation: 35.0% (2016); Benton Georgia, Inc.: 27.7% (2016)**		X		
	ALCOHOL TESTING PROCEDURES	**S**	**U**	**N/A**	**N/C**
.202	Is the Alcohol Misuse Prevention Plan meeting the requirements of Part 199 and Part 40 in place? Yes Date of start up? **"AGL Resources Anti-Drug and Alcohol Misuse Prevention Plan – PHMSA Employees" (revised 2016)**	X			
.202	Who provides your Alcohol Misuse Prevention Plan? (199.202) ☒ Operator ☐ Consortium Name of Consortium:	X			
	Has the operator made any major change(s) to its Alcohol Misuse Prevention Plan based upon the amended requirements to Part 40 and 199 effective 8/1/01? If yes, explain: **Plan revised 2016**	X			

	Operator	Consortium
# of Covered Employees	1494	
Pre-employment	312	
Random	548	
Return to Duty	2	
Follow up	9	
Post-accident	1	
Reasonable Cause	1	
Blind Samples Submitted	0	

1	Hiwassee Construction Company	4	Southern Cross Corp
2	Southeast Connections, LLC	5	QM3 Utility Services, Inc.
3	Hunter Utility Construction	6	United States Infrastructure Corporation
		7	Benton Georgia, Inc.

	.209	List the number of covered employees and alcohol tests performed in the past calendar year?					
			Operator	**Consortium**			
		# of Covered Employees	1494				
		Return to Duty	0		X		
		Follow up	0				
		Post-accident	1				
		Reasonable Cause	1				
	.117 and .227	Are records maintained in a secure location? **Yes (maintained in locked office at Chattanooga Gas)** Name of person(s) interviewed or responsible for recordkeeping: **Michelle Wisz**			X		

Comments:

One of the operator's contractors (QM3 Utility Services, Inc.) did not quite satisfy the 25% minimum random drug testing rate in calendar year 2016. (Its random test rate was 24.4%.) **The operator must require its contractors to meet this requirement.**

	PIPELINE INSPECTION (Field)	**S**	**U**	**N/A**	**N/C**
.179	Valve Protection from Tampering or Damage	X			
.463	Cathodic Protection		X		
.353/.357	Customer Meters and Regulators Location and Installation	X			
.465	Rectifiers	X			
.476	Systems designed to reduce internal corrosion			X	
.479	Pipeline Components Exposed to the Atmosphere		X		
.481	Atmospheric Corrosion		X		
.605	Knowledge of Operating Personnel	X			
.625	Odorant Monitoring	X			
.707	ROW Markers, Road and Railroad Crossings		X		
.719	Pre-pressure Tested Pipe (**Markings and Inventory**)				X
.721	Bridges and Creek Crossings	X			
.741	Telemetering, Recording gauges	X			
.739/.743	Pressure Limiting and Regulating Devices (spot-check field installed equipment vs. inspection records)	X			
.747	Valve Maintenance	X			
.751	Warning Signs			X	
.801 - .809	Operator Qualification - Use PHMSA Form 15 Operator Qualification Field Inspection Protocol Form	X			

Comments:

During the field inspection, pipe-to-soil potentials measurements at two (2) locations (The Village @ Garden Plaza regulator station; Collegetown Mobile Home Park regulator station) were non-compliant (i.e., less negative than -0.85 V).

During the field inspection, several line markers were observed to contain the wrong area code (i.e., 615 rather than 423). A few of them were also observed to contain the wrong operator name (i.e., Cleveland Gas rather than Chattanooga Gas). (Refer to field logs for locations.)

During the field inspection, it was observed that the riser at 9420 E. Brainerd Road needs to be painted or wrapped at the soil-to-air interface.

OPERATOR QUALIFICATION
FIELD INSPECTION PROTOCOL FORM

Inspection Date(s):	September 18-22, 2017
Name of Operator and OPID:	Chattanooga Gas (OPID 02288)
Inspection Location(s):	Chattanooga, TN; Cleveland, TN
Supervisor(s) Contacted:	Michelle Wisz
# Qualified Employees Observed:	6
# Qualified Contractors Observed:	0

Individual Observed	Title/Organization	Phone Number	Email Address
Ricky Clements	Chattanooga Gas		
Hasson Granado	Chattanooga Gas		
Scott Keith	Chattanooga Gas		
Mark Roy	Chattanooga Gas		
Kim Norwood	Chattanooga Gas		
Josh Howard	Chattanooga Gas		

To add rows, press TAB with cursor in last cell.

PHMSA/State Representative	Region/State	Email Address
Ted Wilkinson	TN	ted.wilkinson@tn.gov
Shinisha Freeman	TN	shinisha.freeman@tn.gov
Phill Hendricks	TN	phill.hendricks@tn.gov
Pete Hut	TN	pete.hut@tn.gov
Tim Thompson	TN	tim.thompson@tn.gov

To add rows, press TAB with cursor in last cell.

Remarks:
A table for recording specific tasks performed and the individuals who performed the tasks is on the last page of this form. This form is to be uploaded on to the OQBD for the appropriate operator, then imported into the file.

9.01 Covered Task Performance

Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures.

9.01 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

Guidance: The employee or contractor individual(s) should be observed performing two separate covered tasks, with only one of the covered tasks being performed as a shop simulation. Obtain a copy of the procedure(s) used to perform the task(s). The individuals should be able to describe key items to be considered for correct performance of the task, and demonstrate strict compliance with procedure requirements. If a crew performing a job is observed (such as installing a service line, tapping a main and supplying gas to a meter set), the individual covered tasks should be identified and documented and the crew member performing the task(s) should be questioned as above.

Additional considerations for covered task observations:

1. Determine if procedures prepared by the operator to conduct the task(s) are present in the field and are being used as necessary to perform the task(s).
2. Confirm that the procedures being used in the field are the same (content, revision number, and/or date issued) as the latest approved procedures in the operator's O&M manual.
3. Confirm that the procedures employed by contractor individuals performing covered tasks are those approved by the operator for the tasks being performed.
4. Ensure that procedure adherence is accomplished and that "work-arounds"[1] are not employed that would invalidate the evaluation and qualification that was performed for the individual in performance of the task.
5. Determine if all of the tools and special equipment identified in procedures are present at the job site and are properly employed in the performance of the task, and if techniques and special processes specified are used as described. In certain circumstances, a contractor may operate the pipeline for an owner/operator. In that case, review which procedures have been used to qualify the individuals performing covered tasks and review records accordingly. Also ensure the "operating contractor" performs correct supervisory tasks such as reasonable cause determination.

[1] A "work-around" is a situation where the individual is using a procedure that wouldn't work the way it was written (due to an inadequate procedure or an equipment change that made the procedure steps invalid), or the individual has found a "better" way to get the job done faster instead of using the tool the way it was designed (e.g., not making depth measurements on a tapping tool because you had never drilled through the bottom of the pipe), or not taking the time to follow the manufacturer's instructions (not marking the stab depth when using a Continental coupling to join two sections of plastic pipe) because he never experienced a problem.

9.02 Qualification Status

Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

9.02 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

Guidance: The name of each individual observed should be noted and a subsequent review of their qualification records performed to ensure that: 1) the individual was qualified to perform the task observed; and 2) the individual's qualifications are current. A review of the evaluation requirements contained in the operator's or contractor's OQ written program should be performed to ensure that all requirements were met for the current qualification. In addition, a review of the evaluation instruments (written tests, performance evaluation checklists, etc.) may be performed to determine if any of these contain deficiencies (e.g., too few questions to ensure task knowledge, failure to address critical task requirements). Reviews of qualification records and/or evaluation instruments should ensure that AOC evaluation has been performed.

9.03 Abnormal Operating Condition Recognition and Reaction

Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.

9.03 Inspection Results (type an X in exactly one cell below)		Inspection Notes
X	No Issue Identified	
	Potential Issue Identified (explain)	
	N/A (explain)	
	Not Inspected	

Guidance: This inspection should focus on an individual's knowledge of the AOCs applicable to the covered task being performed and the ability to recognize and react to those AOCs. The information gained during the inspection should be compared to the requirements for qualification applied by the operator or contractor during the evaluation process for the subject covered task (e.g., knowledge of task-specific AOCs in addition to generic AOCs). If contractor individuals are observed, confirm whether the AOCs identified in the operator's written program are the ones used for qualification of the contractor individual.

9.04 Verification of Qualification

Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.

9.04 Inspection Results (type an X in exactly one cell below)		Inspection Notes
	No Issue Identified	No outside or contractor employees.
	Potential Issue Identified (explain)	
X	N/A (explain)	
	Not Inspected	

Guidance: Supervisors, crew foremen or other persons in charge of field work must be able to verify that the qualifications of individuals performing covered tasks. This typically applies to individuals employed by the operator that are from another district or field office, where the qualification status may be unknown or uncertain, or to contractor individuals. Employee records should be made available through company databases or other means of verification, while contractors should be required to provide documentation of qualification prior to beginning work, and also provide a form of identification that is satisfactory to correlate the qualification documentation with the individual performing the task.

9.05 Program Inspection Deficiencies

Have potential issues identified by the headquarters inspection process been corrected at the operational level?

9.05 Inspection Results (type an X in exactly one cell below)		Inspection Notes
	No Issue Identified	Headquarters inspection (Protocols 1-8) not performed.
	Potential Issue Identified (explain)	
X	N/A (explain)	
	Not Inspected	

Guidance: If the field inspection is performed subsequent to the headquarters inspection (six months or more), the OQ database or inspection records should be checked to determine if any potential issues that were identified as having implications for incorrect task performance (e.g., no skills evaluation for tasks requiring knowledge and skills; hands-on evaluations were performed as a group as opposed to individually; span of control was not specified on a task-specific basis; evaluation and qualification on changed tasks or changed procedures not performed; inadequate provisions for, or inadequate implementation of requirements for, suspension of qualification following involvement in an incident or for reasonable cause) have been corrected.

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Ricky Clements	Hasson Granado	Scott Keith	
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Pipe-to-Soil Potentials Monitoring	Y	Y		
2	Rectifier Inspections	Y	Y		
3	Regulator Station Inspections			Y	
4	Valve Maintenance			Y	
5					
6					
7					
8					

Field Inspection Notes

The following table is provided for recording the covered tasks observed and the individuals performing those tasks.

No	Task Name	Name/ID of Individual Observed			Comments
		Mark Roy	Kim Norwood	Josh Howard	
		Correct Performance (Y/N)	Correct Performance (Y/N)	Correct Performance (Y/N)	
1	Valve Maintenance	Y			
2	Odorant "Sniff" Tests		Y		
3	Patrolling			Y	
4					
5					
6					
7					
8					

-Gas Pipeline Safety Division-
2017 Pre-Inspection Check List

Operator:	Chattanooga Gas		**Scheduled Date:**		September 18-22, 2017
Contacted:	Michelle Wisz		**Phone #:**		423-486-2698
Type of Inspection:	X	**Standard /OQ Protocol 9**		**Follow Up**	X **Forms Prepared**

-Gas Pipeline Safety Division Risk Management Model Review-

Level of Risk:		High	X	Medium		Low	Cause: Bare Steel and Wrought Iron

-Review of Previous Inspection Reports-

X	**Open Violations:**	None
X	**Investigation Comments Needing Attention/Follow Up:**	None
X	**Recent Incidents/Penalties:**	None
X	**Field Inspection Review:**	2016: No issues
X	**Operator Qualification Issues:**	None
X	**Public Awareness- Last Effectiveness Evaluation:**	2014
X	**Integrity Management- Last Review:**	May 30-31, 2012 (3rd party excavation damages largest threat)
X	**Construction/Uprate/Pipe Issues:**	None
	Other:	

-PHMSA Data Base Search-

X	**Annual Report Review**	**Date of Report:** 3/15/2017
	Incident Report Review	N/A
X	**NPMS Miles vs. Annual Report Miles**	36 miles of bare steel (10.6 miles unprotected); 545.4 miles of coated steel; 1,047.1 miles of plastic; 75,622 services (per CY2016 Annual Report)
	Other Dashboard:	N/A

-Additional Inspectors Scheduled to Participate-

Name	Assignment	Name	Assignment
Shinisha Freeman	Valves	Phill Hendricks	Corrosion (Cleveland); Patrolling
Pete Hut	Corrosion (Chattanooga)	Tim Thompson	Regulator Stations; Odorant "Sniff" Tests

Inspector: Ted Wilkinson 9/11/17