

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

ELECTRONIC APPLICATION FOR A DECLARATORY)	CASE NO.
ORDER OF BURKESVILLE GAS COMPANY, INC.)	2023-00180

VERIFIED APPLICATION

Comes now Burkesville Gas Company, Inc. (“Burkesville”) by and through the undersigned counsel, pursuant to KRS 278.010, 807 KAR 5:001 Section 19 and other applicable law, and does hereby submit its Application for the Commission to declare that Burkesville is not required to obtain a Certificate of Public Convenience and Necessity (“CPCN”) for the small projects it is initially undertaking to extend natural gas service to underserved and unserved areas within its service territory since the projects are within the normal course of business. Burkesville is also seeking a declaratory order that it is not required to seek financing approval under KRS 278.300 for the loan received from the Small Business Administration through the COVID Economic Injury Disaster Loans (“COVID EIDL”). As grounds for this Application, Burkesville respectfully states as follows:

I. INTRODUCTION AND FILING REQUIREMENTS

1. Pursuant to 807 KAR 5:001, Section 14(2), Burkesville Gas is a Kentucky corporation originally incorporated on September 25, 1990, in good standing, and a public utility as that term is defined in KRS 278.010(3), and, therefore, is subject to the Commission’s jurisdiction. Burkesville Gas is engaged in the business of furnishing natural gas services to customers in Cumberland County, Kentucky.

2. Burkesville Gas’ business address is 119 Upper River Street, Burkesville, Kentucky

42717.

3. Burkesville's telephone number is 270-864-9400 and its principal email address is DTSHIREYLL@GMAIL.COM. Its web address is www.burkesvillegas.com. In addition to Burkesville's email, Burkesville requests that service also be made to its retained counsel, L. Allyson Honaker at allyson@hloky.com and Brittany Koenig at brittany@hloky.com.

4. Burkesville owns and operates approximately 3 miles of 6" plastic mains, 6 miles of 2" to 4" plastic mains and 9 miles of less than 2" gas distribution mains with customers in Cumberland county. Burkesville serves approximately 276 retail customers. Additionally, there is one Housing Authority customer that distributes natural gas to 183 residential units.

5 In response to the COVID-19 pandemic, The Small Business Administration ("SBA") was given the authority to make low-interest fixed-rate long-term COVID EIDL to help small businesses and other entities overcome the effects of the COVID-19 pandemic. These loans are directly through SBA unlike the Paycheck Protection Program ("PPP") loans that were administered by SBA-certified financial institutions. The COVID EIDL program allows SBA to provide money for working capital for small businesses to assist in meeting ordinary and necessary operating expenses already incurred or that will be incurred in the future. Unlike the PPP loans that could be forgiven, the COVID EIDL loans will be paid back. The COVID EIDL loans have a low interest rate of 3.75% and a thirty year payback period. The program is totally administered by SBA, including funding and servicing. There was a narrow window to apply for any federal programs associated with COVID-19 relief and the COVID EIDL loans are no exception. These loans were only available as long as funding was available.

6. Burkesville and Apache Gas Transmission Company, Inc., filed a request in the COVID-19 docket, Case No. 2020-00085, on March 11, 2022, for declaratory relief related to this

loan, however the Commission did not rule on that request. Burkesville was awarded the funds from the COVID EIDL loan. Burkesville has placed \$364,000 of those funds in an escrow account.

II. Request for Declaratory Relief - Financing

7. Pursuant to KRS 278.300, utilities are generally required to gain Commission approval prior to issuing any securities or evidences of indebtedness. Burkesville believes that a loan pursuant to this program would constitute an evidence of indebtedness under this statute. However, Burkesville believes that this particular loan would fall under the exception contained in KRS 278.300(10) and would not require it to obtain Commission approval prior to entering into the loan.

8. The COVID EIDL program is administered, supervised and controlled by the SBA, which is an agency of the United States government. The loans provided through this program are funded by SBA and are not associated with SBA-accredited financial institutions. This fits into the exception to the general requirement to obtain Commission approval prior to entering into an evidence of indebtedness. Specifically, KRS 278.300(10) provides: “This section does not apply in any instance where the issuance of securities or evidences of indebtedness is subject to the supervision or control of the federal government or any agency thereof...” Because this loan program is under the complete “supervision” and “control” of the SBA, including the funding of the loan proceeds, KRS 278.300(10) provides an exemption and a basis for declaring that the Commission lacks jurisdiction over the loans applied for and obtained by Burkesville.

9. Although Burkesville believes this loan is an exception to the requirement of Commission approval, due to the size of the loans, Burkesville felt the need to seek Commission confirmation that approval is not required. Burkesville intends to use the remaining loan proceeds to assist in expanding its gas pipeline to provide natural gas service to areas that currently do not

have natural gas service which could possibly aid in economic development opportunities in the future.

III. Request for Declaratory Relief - CPCN

10. Burkesville has been contemplating for many years, how to extend its natural gas service to the Cumberland County line to increase its customer base. Being a small gas company, obtaining financing for these types of projects is very difficult. With the receipt of the COVID EDIL funds, Burkesville believes it will now be able to complete the projects necessary to extend its system into the underserved and unserved areas.

11. Burkesville will have to embark on several projects, most of these will be small in scale, in order to extend its natural gas system. The first phases of this project are the items Burkesville does not believe that a CPCN is necessary.

12. The first projects needed to begin extending the natural gas service to underserved and unserved portions of Cumberland County are simply extending mains and service lines within, adjacent or near to the current Burkesville service areas. Even though these projects are what Burkesville considers to be in the ordinary course of business, financing was needed since Burkesville is a small gas company and cannot bear the costs of these upgrades on its own.

13. Burkesville is requesting to complete this project in phases. The first phase will consist of extending Burkesville's system to commercial businesses on the south side of Highway 90, just east of Marrowbone, Kentucky. In order to extend its service in this area, Burkesville proposes to connect to its existing main approximately 1,000 feet north of Highway 90 and extending southward, in the public right-of-way, along the west side of County Road 496. Burkesville will then extend its main line eastward along the north side of Highway 90 on a combination of public rights-of-way and private easements to the east corner of the east corner of

the land, where an easement has been provided by the property owner for this project. A service line will also be extended to the property owner. Burkesville believes that initially, this project will connect two businesses to its pipeline. When reviewing the propane usage of these two business customers, Burkesville estimates that it will generate approximately \$2,360 of adjusted gross revenue per year.¹ There are also additional customers that could join Burkesville's system, but have not made a commitment at this time. This section will be a 2" main and would need to be extended approximately 2,500 feet in order to make natural gas service available to multiple businesses in that unserved area. The work to be performed in Phase 1 would be completed or supervised by Burkesville employees who hold the appropriate Operator Qualifications for the necessary pipeline installation. These installation activities would include but not be limited to the following: butt fusing, electro fusing, saddle and electrofusion taping, inspecting, testing and record keeping. Burkesville would hire a sub-contractor for 4 horizontal directional drillings under roadways and would use equipment to open a ditch. It is anticipated that there is a low percentage of rock and that the soil left from opening the ditch could be used as backfill.

14. The estimated cost of Phase 1 includes the materials needed and easement costs. It also includes the cost of crushed limestone, in case the ditch soil is not enough to backfill, and the estimated professional fees are \$5,000.00. A breakdown of the costs of Phase 1 is included with this Application as Exhibit A.

15. A map of Phase 1 of the project is included with this Application as Exhibit B.

16. A letter from Precision Engineering verifying that the work involved in this project is work that can be performed by Burkesville employees, is attached as Exhibit C.

¹ For purposes of this document, Adjusted Gross Revenue means the anticipated Mcf volume of natural gas sold times the current Burkesville approved tariffed base rates plus the minimum bill.

17. Burkesville would follow its Operations and Maintenance Plan (“O&M Plan”) for installing the gas pipeline using Horizontal Directional Drilling. A copy of Burkesville’s O&M Plan is attached to this Application as Exhibit D.

18. In light of the nature of this project, and other similar projects, Burkesville does not believe that a CPCN is required for projects of this size. The work is work that is ordinarily performed by Burkesville employees. The construction will not interfere with any other utility operations.

IV. Conclusion

Burkesville does not believe that financing approval or a CPCN is necessary for the portions of the project that are being proposed by Burkesville, and similar size projects. Burkesville requests the Commission to enter a declaratory ruling that Burkesville does not need financing approval for the funds received from the COVID EIDL program administered and funded by SBA and that a CPCN is not required for the small projects that Burkesville would like to complete to begin extending natural gas service to underserved and unserved areas of Cumberland County.

Dated this 22nd day of May, 2023.

Respectfully submitted,



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Counsel for Burkesville Gas Company, Inc.

CERTIFICATE OF SERVICE

This is to certify that foregoing electronic filing was transmitted to the Commission on May 22, 2023; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that pursuant to the Commission's July 22, 2021 Order in Case No. 2020-00085, no paper copies of the filing will be made.



Counsel for Burkesville Gas Company, Inc.

EXHIBIT A
ESTIMATED PROJECT COST

Burkesville Gas Company, Inc. Estimated Cost for 2023 Mini-Project 1
Kountry Kitchen and FarMor LLC

Antisipated Revenue		Approximent Conversion to Mcf	Estimated Annual Adjusted Gross Revenue excluding gas costs
Kountry Kitchen	Reports using about 1,500 Gal of Propane per year	136.36	\$ 1,070.45
FarMore LLC	Reports spending \$4,129 for CYE 12/2022	166.83	\$ 1,289.50
Total estimated Adjusted Gross Revenue		303.19	\$ 2,359.95

Description	unit price	extended price
2,500 feet of SDR 11 high density 2" trenched	1.59	3,975
1,000 feet of SDR 11 high density 3/4" trenched	0.680	680
Meters, Risers and Regulators and EF valves fittings		500
400 feet of SDR 11 high density 2" to be bored	1.590	636
460 Horizontal Directional Drilling cost	10.000	4,600
2 house regulators, excess flow valve and meters sets		-
2 sectionalizing valve(s)	400.00	800
Field regulator	500.00	
Equipment Rental		3,000
crushed limestone for back-fill (if necessary)		1,000
3,500 #12 tracer wire	0.250	875
Easement fees		-
Cost contingency		3,000
Total Construction Cost		19,066
Professional Fees		
Legal fees associated with preparation and filing request to PSC		5000
Engineering		550
Total Professional Fees		5,550
Total estimated Cost		24,616

EXHIBIT B
PHASE 1 PROJECT MAP

Burkesville Gas Company

Kountry Kitchen - 2023 Expansion Project

Legend

- 1 1/4" HD existing line
- Existing 6" main
- Proposed Horizontal Directional Drill 2" HD plastic
- Proposed trench 3/4" MD
- Proposed trenched 2" main HD plastic

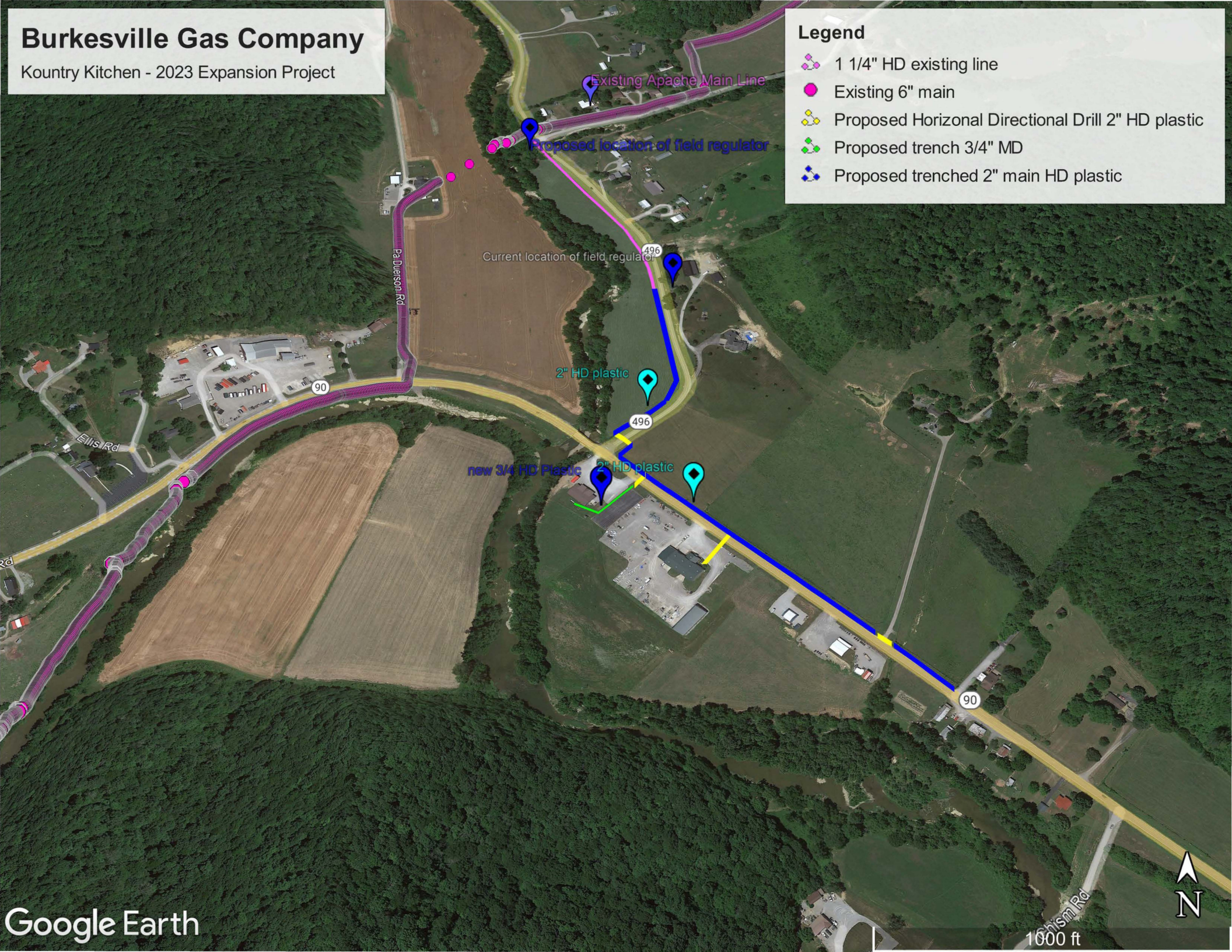


EXHIBIT C
ENGINEERING LETTER



April 19, 2023

Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

RE: Burkesville Gas Company

Dear Reviewer:

We, Precision, are the consultant engineer for Burkesville Gas Company, located in Burkesville, Cumberland County, Kentucky. Burkesville Gas Company (“BGC”) is a local natural gas distribution company. Apache Gas Transmission Company (“Apache”) is an intrastate natural gas transmission line. Both companies are based in Cumberland County, Kentucky. These companies have been clients of ours since September 2021. We have met on several occasions with the company’s principal and have also met with the personnel responsible for managing the natural gas systems. On one occasion I met with these individuals and together we visited a heavily wooded section of the natural gas transmission line to evaluate and discuss what course of action was needed to properly repair that section. Even though BGC and Apache are relatively small companies when compared to other public utilities, it is convenient for Precision Engineering to provide any necessary services to them due to our proximity to Cumberland County.

BGC personnel commonly perform functions as are required to install, repair, and maintain natural gas mains and services. As required by the Kentucky Public Service Commission, BGC maintains its specific O & M manual, (attached and Exhibit 1) that details procedures for natural gas system repairs, improvements, and extensions. Additionally, as required by the Kentucky Public Service Commission, BGC maintains its specific Operator Qualification manual, (attached and Exhibit 2) detailing BGC personnel qualifications to perform specific covered tasks.

All the proposed construction projects that are/or will be considered by BGC will be main line extensions to unserved or underserved areas in Cumberland County, Kentucky that are within, adjacent, to or near its current service areas.

The extension that is currently being proposed include three road bores and approximately 1,500 feet of 2” SDR 11 main extensions so that natural gas service may be made available to businesses on the south side of highway 90 just east of Marrowbone Kentucky. Based on my professional knowledge and experience, it is my opinion that this project is entirely within the scope of extension in the ordinary course of business.

Additional extensions of BGC’s existing system will need to be completed, some of which BGC believes a Certificate of Public Convenience and Necessity (“CPCN”) may be required. However, due to the scope of this specific extension, BGC does not believe a CPCN is required at this time. There will be subsequent extensions submitted, when necessary, as factors and details become clearer and more exact.

In conclusion, Burkesville Gas Company personnel hold and maintain the appropriate operator qualification for the covered tasks to complete this project. At this time, it is my recommendation that there be no need for them to require assistance from an engineering firm in conducting the project described herein. Any part of the project that requires extraneous services, such as horizontal drilling, can be organized, supervised, and conducted appropriately by

Burkesville Gas Company personnel.

If you have any questions related to the contents and statements of this letter, please feel free to contact me at 270-407-5784 or steve@precision-engr.com.

Sincerely,

PRECISION ENGINEERING, LLC

A handwritten signature in blue ink, appearing to read "S. R. Harris", with a stylized flourish at the end.

Stephen R. Harris, PE, PLS
Principal Engineer

EXHIBIT D
O&M PLAN

Burkesville Gas Company

Basic Operating and Maintenance Plan for Pipeline Facilities



Burkesville, Kentucky

December 2021

**119 Upper River Street
Burkesville, KY 42717**

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Operating and Maintenance Plan

Basic Operating and Maintenance Plan Information

- (1) **Purpose of the Plan.** This plan prescribes guidelines and minimum standards for the safe and reliable operation and maintenance of natural gas distribution systems and to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).
- (2) **Regulatory Requirements.** The Natural Gas Pipeline Safety Act of 1968 required the Department of Transportation to develop and enforce minimum safety regulations for transportation of gases by pipeline. These regulations are published in Title 49, Code of Federal Regulations, Parts 190,191,192, and 199.

Each gas operator is responsible for compliance with the above regulations and must remain familiar with the requirements contained within.

Gas operating and maintenance procedures are specifically required under 49 CFR 192.605.

- (3) **Reporting**

- I. **US Department of Transportation**

At the earliest practical moment following discovery of an incident, but no later than one hour after confirmed discovery, notice shall be given by telephone to the National Response Center at 800-424-8802 or electronically at <http://www.nrc.uscg.mail>.

Incident means any of the following events:

- A. An event that involves a release of gas from a pipeline, and that results in one or more of the following consequences:
 1. death, or personal injury necessitating in-patient hospitalization;
 2. Estimated property damage of \$122,000.00 or more, including loss to the operator and others, or both, but excluding the cost of gas lost;
 3. Unintentional estimated gas loss of three million cubic feet or more;

B. An event that is significant, in the judgment of Burkesville Gas Company, even though it did not meet the criteria of paragraph (1) of this definition.

1. Each notice shall include the following information:
 - a) Names of the operator and person making report and their telephone number.
 - b) The location of the incident.
 - c) The time of the incident.
 - d) The number of fatalities and personal injury, if any.
 - e) All other significant facts that are known by the operator and are relevant to the cause of the incident or extent of the damages.

Within 48 hours after the confirmed discovery of an incident, to the extent practical, Burkesville Gas Company will revise or confirm its initial telephonic notice with an estimate of the amount of product released, an estimate of the number of fatalities and injuries, and all other significant facts that are known that are relevant to the cause of incident or extent of damages. If there are no changes or revisions to the initial report, Burkesville Gas Company will confirm the estimates in its initial report.

Burkesville Gas Company shall submit to the Department of Transportation Form PHMSA F 7100.1 as soon as practical but not more than thirty (30) days after detection of an incident required to be reported. The report must be submitted electronically to the Pipeline and Hazardous Materials Safety Administration at <http://opsweb.phmsa.dot.gov> unless an alternative reporting method is authorized.

Alternative Reporting Method. If electronic reporting imposes an undue burden and hardship, Burkesville Gas Company may submit a written request for an alternative reporting method to the Information Resources Manager, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, PHP-20, 1200 New Jersey Avenue, SE, Washington DC 20590. The request must describe the undue burden and hardship. PHMSA will review the request and may authorize, in writing, an alternative reporting method. An authorization will state the period for which it is valid, which may be indefinite. An operator must contact PHMSA at 202-366-8075, or electronically to informationresourcesmanager@dot.gov or make arrangements for submitting a report that is due after a request for alternative reporting is submitted but before an authorization or denial is received.

When additional relevant information is obtained after the report is submitted, Burkesville Gas Company shall make supplementary reports as deemed necessary with a clear reference by date and subject to the original report.

II. The Kentucky Public Service Commission

Reporting of Accidents, Property Damage, or Loss of Service.

- (1) Within two (2) hours following discovery each utility, other than a natural gas utility, shall notify the commission by telephone or electronic mail of a utility related accident that results in:
 - a) Is reported to USDOT pursuant to 49 CFR Part 191, Federal Pipeline Safety Regulations.
 - b) Death or shock or burn requiring medical treatment at a hospital or similar medical facility, or any accident requiring inpatient overnight hospitalization;
 - c) Actual or potential property damage of \$25,000 or more; or
 - d) Loss of service for four (4) or more hours to ten (10) percent or 500 or more of the utility's customers, whichever is less.
- (2) In addition to the initial notice, a summary written report is required to be submitted and received by the Commission within thirty (30) calendar days of the date of the reportable incident. This report shall be mailed to:

Kentucky Public Service Commission
P.O. Box 615
Frankfort, KY 40602-0615

- (3) Notification pursuant to 807 KAR 5:027, Section 3 is to be provided: telephonically to 502-782-7903 and via electronic mail to Pipeline.Safety@ky.gov.

(4) During non-office hours please call one of the following:

EMERGENCY CONTACT LIST

Updated: July 14, 2021

**KENTUCKY PUBLIC SERVICE COMMISSION GAS PIPELINE SAFETY PROGRAM
DIVISION OF INSPECTIONS
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602
(502) 564-3940
(502) 564-3460 fax**

Personnel	Title	Email	Work Phone	Work Cell
David Nash	Utility Investigator	david.nash@ky.gov	(502) 782-2611	(502) 791-0503
Scott Morris	Utility Investigator	scotta.morris@ky.gov	(502)782-2607	(502) 791-1350
Michael Nantz	Utility Investigator	michael.nantz@ky.gov	(502) 782-2602	(502) 791-0237
Chris Bailey	Utility Investigator	christopher.bailey@ky.gov	(502) 782-2558	(502) 791-1393
Darren Combs	Utility Investigator	darren.combs@ky.gov	(502) 782-2089	(502) 791-0493
Melissa Holbrook	Assistant Director DOI / Pipeline Safety Program Manager	melissac.holbrook@ky.gov	(502)-782-2603	(502) 791-0583

III. Distribution System: Annual Report

- A. Burkesville Gas Company shall submit an annual report for their system on DOT Form PHMSA F 7100.I-1. This report be submitted each year, not later than March 15, for the preceding calendar year.

IV. Reporting Safety Related Conditions

- A. Except as provided in B. of this section, Burkesville Gas Company shall report in accordance with §191.25 the existence of any of the following safety-related conditions involving facilities in service:
 - 1. In the case of a of a pipeline that operates at a hoop stress of 20 percent or more of its specified minimum yield strength, general corrosion that has reduced the wall thickness to less than that required for the maximum allowable operating pressure, and localized corrosion pitting to a degree where leakage might result.
 - 2. Unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood that impairs the serviceability of a pipeline.
 - 3. Any material defect or physical damage that impairs the serviceability of a pipeline that operates at a hoop stress of 20 percent or more of its specified minimum yield strength.
 - 4. Any malfunction or operating error that causes the pressure of a pipeline to rise above its maximum allowable operating pressure plus the build-up allowed for operation of pressure limiting or control devices.
 - 5. A leak in a pipeline that constitutes an emergency.
 - 6. Any safety-related condition that could lead to an imminent hazard and causes (either directly or indirectly by remedial action of Burkesville Gas Company), for purposes other than abandonment, a 20 percent or more reduction in operating pressure or shutdown of operation of a pipeline.

B. A report is not required for any safety-related condition that:

1. Exists on a master meter system or a customer-owned service line;
2. Is an incident or results in an incident before the deadline for filing the safety-related condition report;
3. Exists on a pipeline that is more than 220 yards (200 meters) from any building intended for human occupancy or outdoor place of assembly, except that reports are required for conditions within the right-of-way of an active railroad, paved road, street, or highway; or
4. Is corrected by repair or replacement in accordance with applicable safety standards before the deadline for filing the safety-related condition report, except that reports are required for conditions under paragraph A.1 of this section other than localized corrosion pitting on an effectively coated and cathodically protected pipeline.

V. Filing Safety-Related Condition Reports

Each report of a safety-related condition identified in Section IV must be filed (received by the Associate Administrator, OPS for DOT and by the Commission for the KY PSC) in writing within five working days (not including Saturday, Sunday, or Federal Holidays) after the day a representative of Burkesville Gas Company first determines that the condition exists, but not later than 10 working days after the day a representative of Burkesville Gas Company discovers the condition. Separate conditions may be described in a single report if they are closely related. Reports may be transmitted by facsimile at (202) 366-7128 for DOT and (502) 564-7279 for the KY PSC.

The report must be headed "Safety-Related Condition Report" and provide the following information:

1. Name and principal address of the operator.
2. Date of report.
3. Name, job title, and business telephone number of the person submitting the report.

4. Name, job title, and business telephone number of the person who determined that the condition exists.
5. Date condition was discovered, and date condition was first determined to exist.
6. Location of condition, with references to State (and town, city, or county) and as appropriate, nearest street address, landmark, or name of pipeline.
7. Description of the condition, including circumstances leading to its discovery, any significant effects of the condition on safety, and the name of the commodity transported.
8. The corrective action taken (including reduction of pressure or shutdown) before the report is submitted and the planned follow-up future corrective action, including the anticipated schedule for starting and concluding such action.

VI. Mechanical Fitting Failure Reports

Each mechanical fitting failure, as required by § 192.1009, must be submitted on a Mechanical Fitting Failure Report Form PHMSA F-7100.1-2. Burkesville Gas Company must submit a mechanical fitting failure report for each mechanical fitting failure that occurs within a calendar year not later than March 15 of the following year (for example, all mechanical failure reports for calendar year 2011 must be submitted no later than March 15, 2012). Alternatively, Burkesville Gas Company may elect to submit its reports throughout the year. In addition, Burkesville Gas Company must also report this information to the Kentucky Public Service Commission.

VII. National Registry of Pipeline and LNG Operators

Burkesville Gas Company will notify PHMSA electronically through the National Registry of Pipeline and LNG Operators at <http://opsweb.phmsa.dot.gov> of certain events.

1. Burkesville Gas Company will notify PHMSA of any of the following events not later than 60 days before the event occurs:
 - (i) Construction or any planned rehabilitation, replacement, modification, upgrade, uprate, or update of a facility, other than a section of line pipe, that costs \$10 million or more. If 60-day notice is not feasible because of an emergency, Burkesville Gas Company will notify PHMSA as soon as practical;

- (ii) Construction of 10 or more miles of a new or replacement pipeline;
 - (iii) Construction of a new LNG plant or LNG facility.
2. Burkesville Gas Company will notify PHMSA of any of the following events not later than 60 days after the event occurs:
- (i) A change in the primary entity responsible (i.e., with an assigned OPID) for managing or administering a safety program required by DOT 49 CFR Part 191 covering pipeline facilities operated under multiple OPIDs.
 - (ii) A change in the name of the operator;
 - (iii) A change in the entity (e.g., company, municipality) responsible for an existing pipeline, pipeline segment, pipeline facility, or LNG facility;
 - (iv) The acquisition or divestiture of 50 or more miles of a pipeline or pipeline system subject to DOT CFR 49 Part 192; or
 - (v) The acquisition or divestiture of an existing LNG plant or LNG facility subject to DOT CFR 49 Part 193.

Burkesville Gas Company will use the OPID issued by PHMSA for all reporting requirements covered under DOT CFR 49 Part 191 and for submissions to the National Pipeline Mapping System.

- (4) **Implementing the Plan.** The management of Burkesville Gas Company is responsible for assuring that all persons having responsibility for operation, maintenance, and periodical inspection of this system are made aware of this plan and are properly trained and qualified to perform as required.

Records must be maintained to verify and document such training.

- (5) **Omissions from Plan.** This plan is written to specifically include various topics of major significance to a gas distribution operator. All codes and standards incorporated by reference are to be considered as part of this plan to the extent that they are applicable.

No written plan is fully inclusive of all details pertinent to operation, maintenance, and inspection. Therefore, industry accepted methods shall apply to those areas not specifically addressed in the plan.

- (6) **Periodical Review of the Plan.** This plan shall be reviewed and revised at intervals not exceeding 15 months, but at least once each calendar year to reflect current regulatory requirements and changes in the system.

Each person responsible for implementation of this plan is encouraged to offer suggestions that would make this plan more effective.

- (7) **Terminology.** Standard English dictionary definitions shall apply except where industry accepted terminology prevails. As used herein the following meanings and definitions apply:

Employee	Any person employed or authorized by the company to perform operating, maintenance, or construction functions related to the gas distribution system.
Gas	The combustible gas distributed for sale to customers of the company.
Personnel	Same as employee.
Main	A distribution pipe that serves as a common source for more than one service line.
Pipeline	All parts of the physical system that carry gas, including mains, service lines, and district regulator stations.

Employee Responsibilities

- (1) **Recognition of Hazards.** Each employee shall remain aware of potential hazards resulting from natural gas leaks and other gas system malfunctions.

Such hazards include, but are not limited to:

- a. Natural gas when mixed with air is combustible. It is easily ignited by open flame, electric spark including static discharge, or by spark from abrasion. The gas has a lower explosive limit (LEL) of flammability of approximately 5% and an upper explosive limit (UEL) of flammability is approximately 15% by volume mixed with air.
- b. Natural gas is lighter than air, with a specific gravity of approximately 0.6. Escaping gas will tend to rise from the point of escape and accumulate in higher locations.
- c. Before working in an excavation where natural gas may be escaping, the atmosphere must be tested accordingly, and proper measures must be taken to eliminate the hazards and to protect the worker

against injury resulting from accidental ignition or insufficient oxygen.

- d. Natural gas escaping at high velocity through polyethylene pipe may cause a high voltage static electric discharge to occur, which may produce ignition under certain conditions. Specific precautions as described in "Prevention of Accidental Ignition OQ Task" must be taken to minimize the danger of self-ignition from static electricity whenever a flammable gas is allowed to escape through plastic pipe.
- e. Potential hazards exist anytime excavation work is performed, or work is performed within an excavation. Damage or injury resulting from interference with underground electric wires, asphyxiation, and ignition of gas or cave-ins are all possible hazards.
- f. All applicable company safety standards regarding personal protective equipment and work procedures must be followed to assure the safest possible work environment.
- g. All reasonable precautions shall be taken to protect the public from hazards resulting from escaping gas, open excavations, or other dangers resulting from operation and maintenance of the gas distribution system.
- h. Minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).

(2) Inside and Outside Leak Investigation. This procedure contains investigation and safety practices to be used by Burkesville Gas Company personnel when responding to a gas leak call. Safe practices for investigating gas leaks inside and outside are included. Gas leak reports will assume the highest priority. The company personnel are in charge at the scene and must use judgment to assure safety of persons and property.

A: Required Equipment:

Employees assigned to leak, and odor investigation should have the tools and equipment necessary to make the required tests, including the following:

- 1. Approved combustible gas indicator.
- 2. Approved explosive proof flashlight.
- 3. Meter swivel with pressure gauge and/or Kuhlman gauge.
- 4. Pipe wrench and adjustable wrench.
- 5. Drive rod or impact bar for making test holes over the service line.
- 6. Leak detector solution for leak testing at all fillings.
- 7. Carbon monoxide indicator.

8. Curb valve key.
9. Flame ionization unit.

B. Inside gas leak investigation:

1. For a dispatched call, note the information given by the Dispatcher, the time when the assignment was received, the arrival time at the premises, and the time the investigation is completed on the Service Order/Leak Report. Make complete notes on steps taken during the investigation; the conditions found, the corrections made, and the information given by the complainant.
2. Turn the combustible gas indicator (CGI) on and allow to stabilize before entering the building.
3. Check for signs of outdoor leaks as you walk toward the building (i.e., vegetation damage such as dead grass or trees).
4. **KNOCK** on the door; remember that the doorbell may be a source of ignition.
5. Contact and question the person that made the complaint, or a responsible person that is familiar with the complaint. Ask when and where odor was first noticed, where it seems to be most noticeable. Investigate that area first.
6. Take samples with the CGI immediately upon entering the premises and as you walk to the problem area. Always watch the meter while taking a sample. Don't depend only on the smell of gas to determine the presence of natural gas.
7. If the CGI shows a room atmosphere of gas-air mixture in the explosive range immediately upon entering the premises, proceed as follows:
 - A. Immediately evacuate all people from the premises.
 - B. Determine the location of the gas meter and turn it off.
 - C. Ventilate the building.
 - 1) Leave doors open.
 - 2) Open windows.
 - D. If necessary, request:
 - 1) Supervisor and/or additional help.
 - 2) Be prepared to call local fire department, police department or other personnel should it be necessary.
 - E. Be alert for on-lookers and area residents that could inadvertently supply an ignition source.
 - F. Take CGI and probe bar outside and test at locations around the meter set and the service line.

- G. If ground outside is free of gas, inform resident that the piping must be repaired, and the Burkesville Gas Company must witness a pressure test on the building piping before service can be re-established.
8. If the CGI does not indicate a hazardous gas-air mixture upon entering the building or while walking to the problem area, proceed to:
- A. Locate the area where the leak is noticeable.
 - B. If the CGI indicates a gas-air mixture in the leak area inform the resident:
 - 1) That the meter must be turned off and locked.
Complete this task.
 - 2) The findings (i.e., % gas, etc.)
 - 3) The policy of Burkesville Gas Company is that all leaks must be repaired, and a pressure test must be performed on all piping downstream of the meter. This test must be performed in accordance with procedures established by Burkesville Gas Company and in the presence of our employee.
 - 4) That finding one leak does not eliminate the possibility of others.
 - 5) To contact Burkesville Gas Company by telephone at 270-864-9400 when the pressure test is ready to be witnessed by our staff.
 - 6) The gas meter will be turned on only after passing the pressure test.
 - C. If all preceding checks are negative the source of the complaint could be outside. Follow steps outlined in Section C. (Outside gas leak procedure) to determine if the leak is outside.
 - D. The Service Order/Leak Report and the service call must be completed.

C. Outside gas leak investigation procedure:

- 1. For dispatched call, note the time when the assignment was given, the time of arrival at the location and the time the investigation was completed on the Gas Leak Inspection Report. Make complete notes on the steps taken during the investigation, the information given by the complainant, the conditions found, and the corrections made.
- 2. Observe conditions while in route to the job site and in the immediate area of the odor call.
 - A. Note wind direction.
 - B. New construction in the area.
 - C. Are gasoline transports unloading?

- D. Have the streets been oiled or resurfaced?
 - E. Do we have any construction or repair crew in the area?
 - F. Do you detect odors in the area?
3. Perform inside gas leak detection as described in section "B" above. Assume there is a hazardous situation until proven safe.
4. Ask the customer the following:
- A. Do they smell the odor now?
 - B. Where was the odor smelled?
 - C. How long ago was odor smelled?
 - D. Have they smelled anything like it before?
 - E. Has anyone else mentioned smelling something?
 - F. Did they smell the odor inside or outside?
5. While walking around the building try to decide if the odor is identifiable as:
- A. Natural gas
 - B. Animal odor
 - C. Gasoline
 - D. Roofing tar
 - E. Refinery or industrial odor
 - F. Paint
 - G. Creosote
 - H. Ammonia
 - I. Lawn fertilizer
 - J. Other odor
6. Check all outdoor appliances and natural gas fixtures:
- A. Gas meter
 - B. Regulator and vents
 - C. Grills
 - D. Gas lights
 - E. Garage heaters, etc.
 - F.
7. Check houses on all sides of the building of the odor complaint.
8. Bar test the building grounds as follows:
- A. Bar hole tests should be performed every 10 feet along the service line.
 - 1) Steel service pipe lengths are usually 21 feet long. The first coupling should be approximately 20 feet out.
 - 2) Polyethylene services make a transition to a steel riser approximately 2 feet from the meter and at the curb valve near the property line.
 - B. Tests should be conducted along gas lines that service outdoor equipment.

- C. Conduct tests along lines that go to garages or other outbuildings.
 - D. Conduct tests along the foundation of the building.
 - E. Draw samples from all openings to the crawl space.
9. If step 9 fails to uncover the potential hazard, proceed to the street and check:
- A. Catch basins
 - B. Manhole covers
 - C. Cracks in pavement
 - D. Cracks in the gutter at the curb
 - E. Utility poles
 - F. Fire hydrants
 - G. Fence posts
 - H. Recent patch work in the street
 - I. Sewer or water maintenance work
 - J. Dead spots of grass surrounded by green grass
 - K. Dead grass along curb line or edge of pavement
 - L. Shrubbery and trees with brown or wilting leaves
 - M. Dead grass between sidewalk and curb
10. If you believe there is a gas leak at the site that you cannot leave, continue the investigation.
- A. Pressure test service piping to the building.
 - B. Expose the service tap and check for a leak.
 - C. Call for additional help as necessary.
11. Utilize gas purging or aeration equipment to relieve potentially hazardous situations or aid in pinpointing suspected leaks.
12. If shutdown of a service or main is necessary, notify all customers that will be affected by:
- A. Door-to-door
 - B. Radio or other public communications
 - C. Remember: All meters must be locked off when there is a main line outage. Leave cards on doors and record meter numbers so that all customers can be contacted for relighting.
13. When a main and/or service has been ruptured due to construction or any other reason and large volumes of gas are escaping, it will be necessary to check for underground migration of gas with a CGI up and down the street. If gas is migrating, arrangements should be made to ventilate and the search for the gas leak intensified. If a concentration of gas is found that may produce serious consequences, evacuate buildings in the immediate area, call for assistance and proceed to check buildings in the general area for hazardous

conditions. Remember, the primary concern is to protect life first, then property.

D. Carbon Monoxide

The purpose is to protect customers from hazards of Carbon Monoxide (CO), by establishing concentration limits in residential living space and the workplace. This policy also establishes testing procedures to be used during a carbon monoxide complaint investigation.

- A. Carbon Monoxide (CO) is a non-irritating, highly toxic gas. CO does not occur in natural gas. It may be formed by incomplete combustion of any fuel that contains carbon. If combustion is complete, no trace of carbon monoxide will be present. Carbon Monoxide mixture in air is flammable within the limits of 12.5% (125,000 ppm) to 74% (740,000 ppm).
- B. Effects of Carbon Monoxide: Carbon Monoxide enters the body through the respiratory system. It combines with hemoglobin of the blood to exclude oxygen and remains in the blood longer than oxygen. A person exposed to CO experiences a lack of oxygen that can cause death. The amount of CO in the blood depends chiefly on two things:
1. How much CO is in the air?
 2. The length of exposure.

The effects of CO range from nothing at extremely low concentrations to death at higher concentrations with related exposure times.

C. Regulations:

1. Kentucky: We have not been able to locate any “safe” limit regulations adopted by the state.
2. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE): The maximum allowable concentration for short time exposure in a living space is 9 ppm according to ASHRAE.
3. OSHA: The maximum allowable concentration for continuous exposure in an 8-hour day is 35 ppm according to federal law.

I. Limitations

- A. Residential Living Space Limits
1. Less than 9 ppm.

- a) No action
- b) Advise customer of concentration of CO detected.
2. Greater than 9 ppm.
 - a) Cut off gas service and lock the valve at the meter.
 - b) Advise customer that appliances must be repaired before we can restore service.

B. Workplace Limits (OSHA)

1. Less than 35 ppm.
 - a) No Action.
 - b) Advise customer of concentration of CO detected.
2. Greater than 35 ppm.
 - a) Cut off gas service and lock the valve at the meter.
 - b) Advise the customer that corrective action must be taken before the service can be restored.

II. Carbon Monoxide Testing

- A. A check for Carbon Monoxide in the air should be made whenever a customer has been overcome or complains of a strange odor, chronic headaches or nausea. A check should be made if houseplants are dying or there is condensation on cool surfaces in the house.

B. Test Locations

Test for carbon monoxide should be made at the noted locations:

1. In the building, head high
2. Over gas appliances
3. Close to heat ducts
4. Near appliances diverters and fire doors on appliances in basements or utility rooms

Test at different points to determine the highest carbon monoxide level in the area.

- C. Tests should be made in the following order before service is re-established.
1. In the air before the appliance is re-started.
 2. Immediately after the appliance is turned on.
 3. After the appliance has operated for 15 minutes.

- (2) Implementation of Emergency Operating Plan.** As required by 192.615, the Burkesville Gas Company has a written emergency plan to address and

minimize the hazard resulting from a gas pipeline emergency. The emergency plan specifically addresses for the following emergency situations:

- a. Gas detected inside or near a building.
- b. Fire located near or directly involving a pipeline facility.
- c. Explosion occurring near or directly involving a pipeline facility.
- d. Natural disaster affecting a pipeline facility.
- e. Safe restoration of any service outage.
- f. Any situation which requires prompt and effective response to eliminate potential for injury or property damage resulting from gas.

Construction and Repair

All construction and repair of gas carrying facilities in the gas distribution system must comply with the requirements of 49 CFR part 192.

I. Qualification of Materials

All pipe, fittings, valves, and other components which carry gas under pressure must be chemically compatible with the gas being transported and must be designed to withstand the stresses which result from the intended operation.

All plastic pipe which carries gas must be polyethylene and must be manufactured in accordance with specification ASTM D2513. Pipe qualified under this specification must be marked at intervals of two feet (or less) showing ASTM D2513, brand name, material grade, nominal size, wall thickness or SDR, and other batch identification. Polyethylene grades PE 2306, PE 2406, and PE 3408 all are acceptable grades. The grade designation will normally be followed by a three-letter suffix that indicates an elevated temperature, its corresponding strength, and the melt index for the material.

Minimum wall thickness should correspond with the following table for polyethylene pipe: (all dimensions in inches)

1/2" CTS (.625 O.D.)	.090 (SDR 7)
1/2" IPS (.840 O.D.)	.090 (SDR 9.3)
3/4" IPS (1.050 O.D.)	.095 (SDR 11)
1" CTS (1.125 O.D.)	.099 (SDR 11.5)
1 1/4" IPS (1.660 O.D.)	.166 (SDR 10)
2" IPS (2.375 O.D.)	.216 (SDR 11)

Each heat fusion fitting for polyethylene must be made of a grade of polyethylene compatible with the pipe used. The procedure must follow the pipe manufactures procedures or the fitting manufactures procedures.

Each plastic mechanical fitting used to join polyethylene pipe to polyethylene pipe must be made of a grade of a plastic material compatible with the gas being transported. An internal stiffener must be used to reinforce each pipe end, and must be the proper diameter for the size and wall thickness of the pipe. Gasket or compression ring material must be suitable for use with the natural gas.

Metal-bodied fittings are not desirable for joining polyethylene to polyethylene pipe below ground due to the need for cathodic protection and corrosion control surveillance.

Metal bodied transition fittings may be used to join polyethylene pipe to cathodically protected steel pipe below ground, or to steel pipe above ground. Each fitting must have a properly designed stiffener and gasket, or compression ring material must be suitable for use with natural gas.

Manufactures procedures must be followed for all mechanical fittings used with polyethylene pipe.

All steel pipe used at meter loops must be of a listed API or ASTM specification and must be schedule 40 or heavier wall thickness.

All fittings used at meter loops must be marked to show brand name or trademark and must be malleable iron or steel. Fittings must be designed for at least 150 PSIG working pressure and be of standard dimensions.

Meter valves must be tamper proof, such that the core is not easily removed with ordinary hand tools. Marking must include brand or trade name, pressure rating, "G" or other designation for gas, and "T" or other designation for tamper proof construction.

II. Qualification of Personnel

All personnel engaged in the construction and repair of mains and service lines must be qualified as outlined in Burkesville's Gas Company's Operator Qualification Plan.

Each person making a joint on polyethylene pipe, whether polyethylene to polyethylene or polyethylene to steel, must be certified in the use of the qualified written procedure for the joint being made. All provisions of 49 CFR 192.285 will be followed.

III. Planning Construction of Mains

Prior to start of construction a comprehensive plan should be made. Limits of public right-of-way or easements and locations of other utilities, which may affect the proposed construction, need to be determined. The location selected for the proposed main must take interference with other utilities and other conflicts into consideration. Affected property owners and other utilities should be advised of proposed construction. Application should be made for state and local permits when required.

The proposed main shall be designed of proper size to supply present and anticipated future demand. The maximum allowable operating pressure for polyethylene mains carrying natural gas may not exceed 60 PSIG.

IV. Installation of Mains

Distribution gas mains must be installed with 24-inch minimum cover. Where an underground structure prevents having 24-inch cover other precautions must be taken to protect the main against damage from anticipated external load or dig-in. Where feasible, a minimum of 12 inches shall be maintained between a main and other underground structure or pipeline.

Polyethylene mains may not be installed above ground unless fully encased in a steel pipe.

Polyethylene mains must be installed resting on well-compacted soil free of foreign objects or sharp rocks that may gouge or puncture the wall of the pipe. Backfill material must be free of sharp rocks or other material that may damage the pipe. If necessary, sand backfill shall be compacted 6" minimum in each direction above, below, and beside the pipe to provide a cushion against damaging materials.

Polyethylene pipe must be transported and handled with care to avoid damage. Each section of pipe shall be visually inspected before being lowered into the trench. Any cuts or gouges that are 10% or more of the wall thickness in depth shall be repaired by removal of a section of pipe containing the damage.

Polyethylene pipe must not be stored for extended periods in direct sunlight. The pipe manufacturers' guidelines should be followed.

A tracer wire must be installed with polyethylene pipe. Solid or stranded copper wire, number 12 AWG or larger, insulated with plastic or rubber is recommended. The tracer wire should be electrically continuous with the tracer wire for each service line to provide accessibility for line locating. To

the extent practical, physical contact between the tracer wire and main should be avoided to minimize potential damage from lightning.

As additional protection against third-party damage, installation of warning tape approximately 12 inches below the surface and directly above gas main is recommended.

IV. Fusion Procedures

- 1) Qualifying Joining Procedures:
Personnel responsible for fusion and mechanical joining are qualified under the applicable joining procedure by:
 - a. Appropriate training.
 - b. Passing a Written Knowledge Test.
 - c. Making a specimen joint from pipe sections joined according to the appropriate procedure,
 - d. The joint passing a visual inspection, and
 - e. In the case of heat fusion and electrofusion, passing a destructive test.

Personnel responsible for fusion and mechanical joining are qualified by appropriate training in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure.

Burkesville Gas Company follows the pipe manufactures procedures for heat fusion and the manufactures procedures for Electro Fusion (EF) and mechanical joining procedures that have been certified by the manufacturer to meet the requirements of 49 CFR Part 192.283.

- 2) Qualification of Personnel:

In order to qualify to make joints in plastic pipe, these conditions must be met:

- a. The person must have appropriate experience or training to understand and correctly perform the applicable procedures.
- b. A specimen joint must be made using each applicable procedure.
- c. The specimen joint must be visually inspected 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.
- d. In the case of heat fusion joints, each joint is to be cut into at least three longitudinal straps, each of which is visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area. Each strap is to be deformed by impact, bending or torque and found not to have failure originating in the joint area.
- e. 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.

- f. All procedures are to follow either the pipe manufactures requirements and/or the machine manufactures recommendations.

Socket Fusion

1. Cut pipe square.
2. Chamfer pipe ends.
3. Utilize the proper depth gauge, place the cold ring onto the pipe.
4. Clean pipe and fitting tool with cloth to remove all contaminates.
5. Verify proper heater plate temperature. Temperature shall be to 500 +/- 10 degrees F.
6. Force fitting and pipe into heater plate. Be sure to insert pipe completely into female socket and the fitting completely onto male socket.
7. Apply heat for the time listed by the pipe manufacturer.
8. Remove pipe and fitting from heater plate being careful not to torque or twist the pipe fitting until cold ring is flush with fitting.
9. Quickly check melt to ensure melt is complete. All surfaces should indicate contact with heater. If unsatisfactory, destroy fitting and start over.
10. Insert pipe into the other fitting branch until cold ring is flush with fitting. Do not twist or rotate.
11. Allow joint to cool for proper cooling time. Be sure to maintain pressure while cooling
12. Allow joint to cool an additional five minutes before removing cold ring.
13. Inspect joint for quality.

Butt Fusion

1. Clean the pipe ends with a clean, lint free cloth.
2. Face the opposing pipe ends with the appropriate machine.
3. Check pipe end alignment in clamps, adjust clamps if required.
4. Verify proper heater plate temperature. Temperature should be 425 +/- 25 degrees F.
5. Insert heater plate between opposing pipe ends and apply sufficient force to initiate contact between pipe ends and heater plate.
6. Apply heat per the pipe manufacturers specifications.
7. Remove heater plate and bring the heated pipe ends together quickly, being careful not to slam the pipe ends together. Apply sufficient pressure to form a "double roll back bead".
8. Maintain fusion pressure while allowing the joint to cool as given in tables.
9. Allow joint to cool an additional five minutes prior to removing joint from fusion jig.

10. Inspect joint for quality.

Saddle Fusion

1. Clean the pipe ends with a clean, lint free cloth.
2. Roughen pipe surface as well as saddle fitting bottom.
3. Insert saddle fitting into Saddle Fusion Machine.
4. Check Tapping tee alignment with pipe prior to heating.
4. Verify proper heater plate temperature. Temperature should be 500 +/- 10 degrees F.
5. Insert heater plate between the pipe and the saddle fitting and apply sufficient force to initiate contact between pipe and heater plate and saddle fitting.
6. Apply heat per the pipe manufacturers specifications.
7. Remove heater plate and bring the heated saddle fitting and the pipe together quickly, being careful not to slam the saddle fitting and pipe together. Apply sufficient pressure per manufacturers recommendations to form a "triple roll back bead".
8. Maintain fusion pressure for a minimum 10 minutes while allowing the joint to cool.
9. Allow joint to cool an additional thirty minutes prior to handling or tapping.
10. Inspect joint for quality.

Electro Fusion

1. Clean the pipe ends with a clean, lint free cloth.
2. Measure the depth of the fitting on the pipe and mark.
3. Use the correct tool to remove the surface of the pipe from the end of the pipe up to the mark.
4. If needed clean the pipe and fitting with 91% alcohol and clean cloth.
5. Mark the pipe again for the depth of the fitting.
6. Insert both ends of pipe into the fitting up to the marks on the pipe.
7. Install clamp on both sides of the fitting per manufactures instructions.
8. Plug the processor up to electrical supply and follow processor instructions.
9. Once processor completes the fusion allow to cool in clamp per fitting manufacturer's instructions.
10. Allow fitting to cool an additional 30 minutes prior to rough handling
11. Inspect joint for quality.

V. Horizontal Directional Drilling - HDD

- When conducting trenchless excavation take all reasonable steps necessary to protect and support underground utility lines. These steps shall include, but are not limited to the following:
 - Verify that all utility lines in the area are marked.
 - Ensure that bore equipment stakes are installed at a safe distance from marked utility lines.
 - When grounding rods are used, ensure that they are installed at a safe distance (at least 24 inches plus the width of the utility line, if known) away from the marked or staked location of utility lines.
 - Ensure sufficient clearance is maintained between the bore path and any underground utility lines during pullback.
 - Give special consideration to water and sewer systems within the area that cannot be located accurately.

Note: The following may assist in determining the location of water systems that cannot be accurately located:

- Review ticket responses received from the notification center to see if water operators have been notified;
- Attempt to contact the homeowner/developer for water location information;
- Perform a visual site inspection. Look for clear evidence such as old marks, water meters, valve boxes, etc.;
- Try to locate service entrance and exit points at building to determine route;
- Be aware of patches in pavement that could indicate where water utilities had been previously uncovered;
- Attempt to locate unmarked facility services using available equipment;

- Physically verify the location of the facility service; and
- Consult the operator of unmarked water facility for additional assistance.

Note: When you can reasonably conclude that a private sewer lateral may be impacted by the use of trenchless technology for the installation or maintenance of gas or electric utility lines based upon visual evidence, knowledge of the proposed excavation site or other available information the following steps must be taken:

- Review information provided by the private sewer lateral owner or sewer system operator;
- Meet with the sewer system operator on-site, if the sewer system operator has additional information to provide about the location of private sewer laterals; or
- Conduct a visual inspection of the proposed excavation site in an effort to determine the probable path of the sewer lateral.

Additionally, excavators utilizing trenchless technology are encouraged to use the following best practices to prevent or mitigate damage to sewer laterals:

- Prior to excavation, conduct a thorough site inspection of the excavation area checking for unmarked sewer laterals and any sewer cleanouts or sewer lateral tracer wire;
- If any evidence of a sewer lateral, such as a cleanout, is discovered, the excavator shall make a reasonable attempt to determine if a tracer wire for the lateral exists;
- If a tracer wire exists, use the tracer wire to locate the sewer lateral with locating equipment;
- If a tracer wire does not exist, use any evidence and other information provided by the private sewer lateral owner and the sewer operator to determine the path of the sewer lateral and plan excavation so as to eliminate or minimize conflict with the lateral;
 - In the event the property is served by a septic or similar private sewer system the excavator shall work with the property owner to determine its location and protect those lines; and

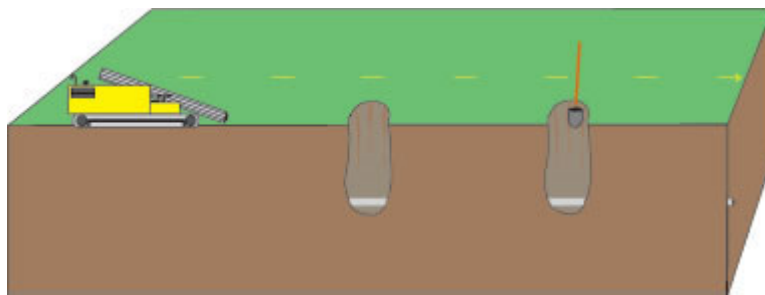
- Other locating methods such as ground penetrating radar, cameras, fish tapes, sondes, or hand digging may be used to locate the lateral.
- In the event a water or sewer lateral cannot be located, trenchless technologies are not recommended to be used in the excavation area.



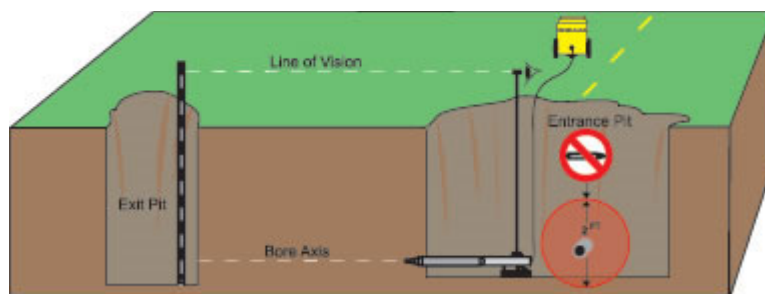
- Unless prohibited by laws, ordinances, regulations, or rules of governmental and regulatory authorities having jurisdiction, expose all utility lines which will be in the bore path by hand digging to establish the underground utility line's location prior to commencing bore. **See figure below.**



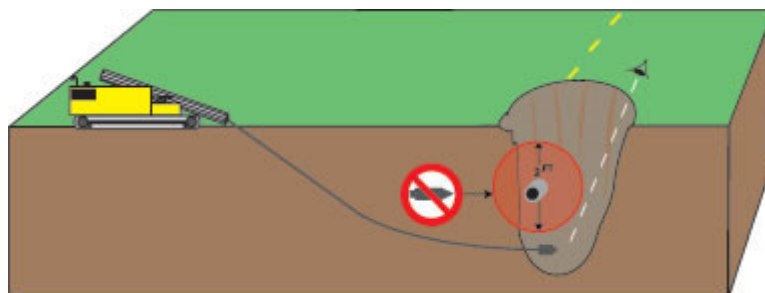
- For a parallel type bore, expose the utility line by hand digging at reasonable distances along the bore path **See figure below.;**



Note: In an effort to further reduce damages, excavators are encouraged to bore away from rather than cross underground utility lines whenever possible, especially when boring with “Impact Moles.” See figure below.;



- Ensure the drill head locating device is functioning properly and within its specification.
- Visually check the drill head as it passes through potholes, entrances, and exit pits.



VI. Inspection of Mains

Each main installed must be inspected by a properly trained and qualified

person prior to being put into operation. This inspection is to ensure proper installation and joining and shall include the following:

- a. Credentials of each person making joints in polyethylene pipe must be verified to be current for the procedures being performed.
- b. All joints must be visually inspected for compliance with qualified written installation
- c. The condition of the bottom of the ditch shall be checked to assure the pipe is resting on smooth and well-compacted soil, free of materials which may damage the pipe.
- d. The tracer wire must be examined to ensure continuity and accessibility after backfill.
- e. Depth of burial shall be checked.
- f. Surface of pipe shall be visually inspected for damage. Any pipe containing cuts or scratches penetrating 10% or more into the pipe wall must be cut out and replaced.
- g. Marking on pipe and fittings must be checked to verify compliance with material specifications.
- h. Backfill material must be checked for metal, sharp rocks, building scraps, or other materials that may damage the pipe surface.

VII. Testing Mains

Each main or section of polyethylene main must be tested to at least 150% of the maximum operating pressure, but not less than 50 P51G. before being placed into operation. Air, carbon dioxide, or nitrogen are acceptable test mediums. The test must be left on a minimum of 1 hour or long enough to discover any potentially hazardous leaks. The final tie-in to an existing main may be leak tested at operating pressure with gas.

Any leaks discovered must be repaired so as to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).

VIII. Main Records

Records must be retained for the useful life of each main to include at least the following:

- a. The name of the company operating the main.

- b. Test results including pressure, duration and medium used.
- c. Leaks or failures discovered during test and remedial action taken.
- d. Size, wall thickness, material designation, brand
- e. Location of main and depth of burial.
- f. Date of installation.
- g. Name of contractor used for installation and testing.
- h. Name of employee inspecting or supervising installation.
- i. Any other information deemed appropriate.

IX. Repairs to Mains and Service Lines

All repairs to polyethylene mains and service shall be made by removal and replacement of the damaged pipe. All pipe must be pressure tested to meet MAOP requirements. As with initial installation only approved mechanical or heat fusion fittings may be used by qualified personnel in accordance with qualified written procedures.

All applicable precautions shall be taken to ensure safety to the public and personnel.

Customer Meters and Regulators

- (1) **Location of Customer Meters and Regulators.** Each meter and service regulator must be installed in a readily accessible location and be protected from corrosion and other damage. Unless absolutely unavoidable, meters shall not be installed in any location where visits of the meter reader or tester will cause annoyance to the customer or severe inconvenience to the utility. Meters and regulators shall be installed outdoors whenever practical.

Meters in or near driveways or parking areas where subject to contact from vehicles shall be protected with suitable barricades.

Each regulator which might release gas in its operation shall be vented to an outside location where gas is not likely to accumulate at or below ground level and will not be likely to enter any opening into a building or come in contact with an ignition source.

Where more than one meter is placed at a single location, each meter shall be marked to identify the customer served.

- (2) **Specific Requirements for Service Regulators.** Each service regulator used must be capable of reducing distribution line pressure to the pressure recommended for household appliances.

All atmospheric vents on service regulators and relief valves must be insect resistant and protected against entry of rain or accumulation of water from condensation.

- (3) **Installation of Customer Meters and Service Regulators.** Each meter and regulator installation must be properly supported and designed to minimize anticipated stresses upon connections and piping. Use of all-thread (close) nipples is prohibited for gas carrying piping.

- (4) **Meter Valves.** Each service line valve installed above ground must be designed and constructed in a manner in which the possibility of removal of the core with other than specialized tools is minimized.

- (5) **Testing Procedures for New or Partially Replaced Low Pressure Piping**

Procedure I:

The following procedures should be observed when testing new or partially replaced house piping with an operating pressure below 1 PSIG. (Base pressure measured to a customer is usually below ½ PSIG.)

1. Close all manual shutoff valves ahead of appliances, or disconnect and cap outlet.
2. Connect the testing instrument to the inlet of the piping to be tested. Acceptable testing instruments include a properly calibrated gauge, a mercury manometer, or a slope gauge which will read in increments of not greater than one-tenth psig.
3. Using air, pressurize the house line to at least 6.0 inches mercury or 3.0 psig pressure. The piping may also be filled with fuel gas or inert gas but NO OTHER gas or liquid. OXYGEN SHALL NEVER BE USED!
4. The source of pressure shall be isolated before pressure observations are made.
5. This test shall be maintained for a minimum of 10 minutes with no drop in pressure.
6. Loosen gauge and reduce pressure to "zero" on the piping.
7. Open shutoff valves to all connected appliances.
8. Turn off all pilot and main burner valves on appliances.

NOTE: If pilot or main burner valves are not part of the appliance, then

proceed with soap testing of the section of the house piping from the shut off valve to the appliance under system operating pressure.

9. Close gauge opening and pressurize the house piping to no less than 10.0 inches nor more than 14.0 inches water column.
10. The source of pressure shall be isolated before pressure observations are made.
11. Maintain this pressure for a minimum of 10 minutes without showing any drop in pressure. This pressure shall be measured by an acceptable test instrument described in Step 2.
12. Remove pressure and test instrument from piping.
13. Reconnect all piping and the meter.
14. When meter is installed and gas pressure applied, test all exposed joints on meter setting with a soap-and-water or leak-detecting solution. NEVER USE AN OPEN FLAME.
15. Purge piping of any possible air. Note: DO NOT PURGE INTO ANY CLOSED AREA OR COMBUSTION CHAMBER.
16. Record test results for verification on company ticket or work order.
17. Handle any leak in accordance with company policy and procedures.
18. Repeat tests when leaks have been repaired.

Procedure II:

Testing Procedures For Existing Low Pressure House Piping

The following procedures should be observed when testing existing low pressure house piping with an operating pressure below 1 psig.

1. Remove meter from the meter loop.
2. Connect the test instrument to the inlet of the piping to be tested.
3. Turn off all pilot and main burner valves on appliances. Cap all outlets.
4. Close gauge opening and pressurize the house piping to not less than 10.0 inches water column nor more than 14.0 inches water column.
5. The source of pressure shall be isolated before pressure observations are made.
6. Maintain this pressure for a minimum of ten minutes without showing any drop in pressure. This pressure shall be measured by the proper test instrument.
7. Remove pressure from piping and remove test instrument.
8. When meter is installed and gas pressure applied, soap all exposed joints with a soap-and-water solution. (NEVER USE AN OPEN FLAME.)
9. Test results must be recorded for verification.
10. Any leak shall be handled in accordance with your company's policy and procedure and test repeated.

Procedure III:

TESTING HOUSE LINES FOR LEAKAGE BY THE METER DIAL TEST METHOD

House lines may be tested for leakage using the meter dial test method if the meter is low pressure with a rated capacity of less than 1000 cu. ft./hr. at 1/2" W.C. differential. This test shall be made as follows:

1. Immediately prior to the test, determine that the meter is in operating condition. This can be done by turning on a small gas burner and observing if there is a movement of the test dial. Also, check to see if the meter has been bypassed. A bubble test shall be made around the meter connections and exposed meter setting fittings. Any leakage discovered at any of these points shall be repaired.
2. Make sure that all appliances are turned off including pilots.
3. Check for leakage by watching the test dial of the meter to determine whether gas is passing through the meter. This observation shall be made with the test hand on the upstroke. To assist in observing any movement of the test hand, mark the dial glass directly over the center line of the hand as soon as the gas is turned on.
4. Allow 5 minutes for a one-quarter or one-half foot dial, 7 minutes for a one-foot dial, 10 minutes for a two-foot dial, and 20 minutes for a five-foot dial in checking gas flow due to possible leakage.
5. If observation of the test hand during the specified period of time reveals no movement, no leakage is indicated.
6. If the meter test hand moves, all appliances or outlets supplied through the system shall be examined to determine that no leak through is occurring.
7. After the house piping test is satisfactorily completed, all appliance connections and internal appliance gas piping which were not exposed to the meter dial test shall be tested for leakage by a bubble test or leak detector test.
8. If an appliance is moved, to perform a test or during a test, the appliance connection shall be tested, with a leakage detector, after the appliance has been put back into place and gas has been restored.

Service Lines

(1) Installing Service Lines. Each service line must be installed and connected to the main by qualified personnel in accordance with the construction specifications. All materials used must be of good quality and intended for use with natural gas. All pipe and fittings used must be

manufactured and tested in accordance with applicable listed specifications. Service lines must be installed with a minimum of 18 inches cover in public right-of-way and 12 inches cover in private property.

Polyethylene service lines must be installed on well-compacted soil free of foreign material or sharp rocks that may gouge or damage the wall of the pipe. Backfill material must be free of sharp rocks or other material that may damage the wall of the pipe. If necessary, sand backfill shall be compacted in each direction above, below, and beside the service line for protection.

Polyethylene pipe must be handled and transported with care to avoid damage. Each section shall be inspected before installation for evidence of deep scratches, cuts, or gouges which penetrate 10% or more of the wall thickness. Damaged pipe shall not be installed.

Polyethylene service pipe shall not be stored or exposed to direct sunlight for extended time periods.

(2) Excess Flow Valves (EFV) An excess flow valve (EFV) must be installed on any new or replaced service line serving a single-family residence, multifamily residences with known customer loads not exceeding 1,000 SCFH, and single, commercial customers served by a single service line with a known customer load not exceeding 1,000 SCFH. The presence of an excess flow valve on the service line must be marked or otherwise identified. The EFV will be located as near as practical to the fitting connecting the service line to its source of gas supply. This is to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A) when the service line may be damaged as to release Natural Gas into the atmosphere.

Existing service line customers who desire an EFV on their service line may request an EFV to be installed on their service line, providing the connected load does not exceed 1,000 SCFH.

Burkesville Gas Company will notify customers of their right to request an EFV in the following manner:

- 1) Notification to customers will be made in writing or electronically.
- 2) The notification will include an explanation for the service line customer of the potential benefits that may be derived from installing an EFV. The explanation will include information that an EFV is designed to shut off the flow of natural gas automatically if the service line breaks.
- 3) The notification will include a description of EFV installation and replacement costs.
- 4) The notification will indicate that if a service line customer requests

installation of an EFV and the load does not exceed 1,000 SCFH, the EFV will be installed at a mutually agreeable date.

Burkesville Gas Company will make a copy of the notice currently in use available during regulatory inspections.

EFVs installed will be reported on the PHMSA Annual Report.

A tracer wire must be installed with polyethylene service lines. Solid or stranded copper wire, number 12 AWG or larger, rubber or plastic insulated may be used. The tracer wire should be electrically connected with the tracer wire at the main, and should be brought above ground at the meter riser. Physical contact between the tracer wire and the service line should be avoided to minimize potential damage from lightning.

Connection to the main may be made using approved mechanical fittings or heat fusion fittings. A person certified to be qualified in the use of the procedure must follow qualified written procedures.

Polyethylene pipe must be shielded from exposure to sunlight or physical force when brought above ground. Anodeless risers or service head adaptors that encase the polyethylene pipe to an above ground transition may be used at meters.

Underground connections between service lines and mains or other fittings may be protected against shearing force from ground settlement with a sleeve of larger rigid plastic pipe. This sleeve may be any commercial grade of plastic.

Meter locations, meter supports, barricading, pressure testing, and record-keeping shall be in accordance with information included in "customer Meters and Regulators" and "Service Lines."

- (2) **Testing Service Lines.** Each new service line must be pressure tested for leaks using air, inert gas, or other suitable test medium prior to being placed into operation. A good quality mechanical or electronic gauge must be used to monitor the test pressure for as long as necessary to discover any potentially hazardous leaks. If feasible the service line connection to the main must be included in the test; if not reasonable, the connection to the main must be leak tested at operating pressure when placed in service. In conducting pressure tests reasonable precautions shall be taken to protect employees and the general public from injury in the event of a failure of the service line or test apparatus. Each disconnected service line must be tested in the same manner as a

new service line from the point of disconnection to the meter valve prior to being put into operation.

Minimum test pressure for steel service lines intended to operate at 100 PSIG or over shall be 1.5 times maximum operating pressure for not less than five minutes

Minimum test pressure for plastic service line shall be 50 PSIG or 1.5 time maximum operating pressure whichever is greater for five minutes.

Existing service lines not physically disconnected shall be tested at operating pressure for not less than 3 minutes.

(3) Operation of Service Lines. Service lines, including customer meters and service regulators, must be included in the continuing surveillance program, corrosion control program, and periodic leakage survey.

(4) Maintenance of Service Lines. All repairs to service lines must be made by qualified personnel using approved materials and methods as specified.

In the event that gas is escaping from a damaged service line, reasonable precautions shall be taken to prevent accidental ignition and to protect employees and the general public from dangers that may result from oxygen deficiency or ignition of gas. The source to the leak will be turned off as soon as safely feasible, so as to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).

Each service line abandoned in place must be disconnected from the source of gas and the pipe ends sealed.

Corrosion Control

(1) Atmospheric Corrosion Control. Each above ground pipeline or portion thereof which is exposed to the atmosphere, and which carries gas under pressure must be painted, coated or jacketed with a material suitable to prevent atmospheric corrosion. This includes exposed piping at distribution regulator stations, service risers and piping at customer meter and regulator installations, exposed pressure regulators, monitor regulators, relief valves and fittings, and all other exposed gas carrying main or service line piping.

At intervals not to exceed three years, each above ground pipeline or portion thereof must be inspected for atmospheric corrosion. If atmospheric corrosion is found, proper remedial action must be taken to prevent further corrosion. If a paint or surface coating is used, the manufacturer's instructions should be followed for proper surface preparation and applications.

(2) **External Corrosion Control, Buried Piping.** All buried gas carrying metallic piping must be effectively protected against external corrosion. Such protection may be provided by each of the following:

- a. All buried metal surfaces must be coated with a factory applied or field applied coating specifically designed to prevent underground corrosion.
- b. Cathodic protection must be provided by maintaining a pipe to soil potential of at least negative (-) 0.85 volts and measured through a copper sulfate half-cell. Protective voltage is normally provided by means of magnesium anodes.
- c. The cathodically protected section must be electrically isolated from other metallic structures above or below ground.

Each pipeline that is under cathodic protection must be tested at least once each calendar year, at intervals not to exceed 15 months. Isolated short sections of cathodically protected piping, such as on service risers, may be tested on a sampling basis if annual testing is not practical. At least 10% must be sampled each year distributed over the entire system, with a different 10% each subsequent year such that the entire system is sampled in a ten-year period.

(3) **Qualifications for Corrosion Control Personnel.** All personnel conducting electrical surveys of cathodically protected facilities must be properly trained to use and maintain the instruments and to interpret the results. Corrosion Personnel must be qualified as outlined in Burkesville's Gas Company Operator Qualification Plan

Proper procedures must be followed for installation of anodes and application of protective coatings.

(4) **Steel Gas Pipe Coating Damage Repair.** When the coating of steel gas piping has been damaged due to accidental dig-ins or due to intentional system repair the following is a standard repair procedure.

- a. Basic application Description
Application of a "primer" to steel pipe to fill surface irregularities if required by the tape manufacturer, to fix the coating to the surface and to develop a firm, permanent bond. Application of a joint wrap tape.
- b. Pipe Surface Preparation
The pipe surface shall be free of mud, mill lacquer, wax, tar, oil, and grease or any other foreign material. Visible oil and grease should be removed through the use of a suitable solvent. Kerosene shall not be used for cleaning. After the pipe has been

welded at the joint, flash rust should be brushed in a manner sufficient to remove gross accumulation. All burrs and weld slags should be removed to achieve a smooth surface. The pipe surface should be free of any moisture or loose rust prior to the application of the primer. The mill applied coating should be feathered at the cutback ends where the thickness of the coating requires it.

c. Application of Primer (if required)

The primer should be thoroughly mixed or agitated prior to application. This procedure will ensure that any rubber solids that have settled out will be returned to proper solution. The primer shall be applied to the clean, dry pipe surface in a thin, rapid-drying film. The primer should cover 100% of the exposed pipe surface including the weld area and it should cover the mill applied coating by a minimum of 4 inches beyond the cut back edge. The primer should be allowed to dry to the "tacky to dry" stage before the joint wrap application.

d. Application of Joint Wrap Tape

The primer shall be free of any surface contaminants and tacky to dry before the joint wrap is applied directly over the primer. Joint wrap tape shall normally be applied at a roll body temperature above 40° F and shall be stored up to the point of application under such conditions and for a sufficient period of time that the roll body temperature should be above 40° F at the time of application. The joint wrap tape shall be applied to the pipe in a spiral fashion with minimum 1" overlap. The wrapping process should start a minimum of 4 inches beyond the cutback edge over the mill applied coating, at the downside of the pipe. Caution should be taken during the wrapping process to avoid contaminating the tape with foreign material. The joint wrap tape shall be applied under taut hand tension (approximately 5-10 lbs. per inch width) except for its initial and final 1/3 turns. The joint wrap shall be ended so that its final edge is directed downwards. This procedure will prevent any damage to the pipe joint wrap when the ditch is backfilled.

- (4) **Corrosion Control Records.** Records shall be maintained to show the locations of cathodically protected piping and facilities, and results of surveys and tests including remedial actions, for as long as each facility is in service.

Records must be in sufficient detail to demonstrate the adequacy of the corrosion control program, including control of atmospheric corrosion. However, cathodic protection records may be maintained separately from atmospheric corrosion surveillance records.

Continuing Surveillance

- (1) **Scope of Surveillance Program.** Each employee responsible for operation or maintenance is to remain attentive to conditions affecting the safety and reliability of the gas system and its components, and is to continually observe for such conditions during the performance of duties.

This surveillance is to include conditions surrounding or adjacent to the system which may lead to hazards.

- (2) **Specific Surveillance Guidelines.** The continuing surveillance program includes, but is not limited to observation for the following conditions:

- Excavation or construction activities near buried facilities.
- Mains or service lines exposed by soil erosion.
- Evidence of leaking gas from mains or service lines.
- Permanent or mobile dwelling units or other building structures placed or constructed over buried service lines or mains.
- Damaged customer metering facilities.
- Customer metering facilities in need of barricade protection.
- Atmospheric corrosion or rust on customer meters and associated piping.
- Abnormal pressure readings on system gauges.
- Missing locks or ineffective security on bypass valves or other valves, which could cause a system malfunction if operated by unauthorized personnel.
- Required pipeline markers missing, damaged, or severely faded.
- Rooms, garage, carport, or other structures built over a service line or main

- (3) **Remedial Actions.** Any deficiencies must be acknowledged, and appropriate remedial action initiated in accordance with the degree of urgency appropriate for the conditions observed.

Serious leaks or other imminent dangers must be given immediate attention so as to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A), whereas atmospheric corrosion or other conditions not immediately hazardous may be scheduled for timely repair.

- (4) **Surveillance Records.** Records shall be maintained of the deficiencies found and the remedial actions taken. Location, date, description, and identity of worker should be included.

Line Markers

Line Markers will be placed and maintained as close as practical over each buried main and transmission line except those in Class 3 or Class 4 locations where covered by the Burkesville Gas Company damage prevention program.

The markers will contain the words, "Warning," "Caution" or "Danger" followed by the words "Natural Gas Pipeline along with the name "Burkesville Gas Company" and the phone number where the operator can be reached at all times.

Investigation of Failures

- (1) **Scope of the Program.** All accidents and failures directly involving the gas system must be investigated for the purpose of determining their cause, so that appropriate actions may be taken to minimize the probability of recurrence.
- (2) **Guidelines for Investigation of Failures.** All leaks in service lines or mains, over pressure conditions, system outages, or inadequate delivery pressure occurrences are considered as failures and should be investigated to determine factors which contributed to or directly caused the failure.

Leaks in polyethylene resulting from failed heat fusion or mechanical joints, or stress cracking in the pipe wall should be thoroughly investigated including laboratory analysis. If the cause of the failure is determined to be from defective material or defective workmanship a plan must be developed to locate other areas which may be affected, and to perform leakage surveys in locations within those areas where failure would present the greatest hazards. Current joining methods are to be reviewed to assure that written procedures are being followed by properly trained and qualified personnel.

Malfunctions of pressure regulating or over pressure protection devices must be investigated to determine whether the failure was caused by poor maintenance, defective material, or outside forces. If other pressure controlling devices are likely to be affected in the same manner, a program shall be implemented to check such devices on a sampling basis.

Tapping Under Pressure

- (1) **Qualification of Personnel.** Each tap made on a pipeline under pressure must be made by personnel properly trained and qualified to make hot taps. Such training shall include recognition of hazards that may result from escaping gas as well as specific knowledge of the procedures for ignition prevention and control, and protection of personnel. Purging and release of Natural Gas into the atmosphere will be kept to a minimum to meet PHMSA Mandate 12-27-21 (see Appendix A).
- (3) **Safety Precautions.** All applicable safety procedures shall be followed to assure protection from injury resulting from accidental ignition or oxygen deficiency.

Regulator Inspections

- (1) **Pressure Regulators.** Each pressure regulator used for pressure reduction or for pressure limiting should be inspected once each calendar year not to exceed 15 months.

The inspection will ensure that each regulator is in good working order, controls at its set pressure, operates or strokes smoothly and shuts off within the expected and accepted limits.

- (2) **Additional Inspections.** A visual inspection shall be conducted to assure that building, fences, storm drainage and exposed piping and equipment are in acceptable condition. All exposed piping and equipment should be visually inspected for evidenced of atmospheric corrosion. An inspection or test of stop valves should be made to ensure that the valves will operate and are correctly positioned.

- (4) **Relief Valves.** Each relief valve and other overprotection devise will be inspected at least once each calendar year not to exceed 15 months.

The inspection shall include but is not limited to:

- Checking the set-point pressure, inspecting the relief valve
- Inspecting the relief valve, branch piping and stack to ascertain they are in good mechanical condition
- Check for evidence of tampering
- Check for signs of atmospheric corrosion.
- Ensure plugs are in the test connectors.
- An inert gas should be used to check the set-point and relief operation so as to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).

Maximum Allowable Operating Pressure

The maximum allowable operating pressures (MAOP) for pipelines and pipeline facilities shall be established by using guidelines as set forth in Title Part 192.

Burkesville Gas Company is responsible for insuring the maximum allowable operating pressure, which have been determined for each pipeline, are not exceeded. It shall be responsible for establishing and maintaining system MAOP records on all pipelines.

Emergency Valve Inspections

Designated Emergency Valves shall be inspected each calendar year not to exceed 15 months. The inspection shall include the following:

- Verify that the valve location measurements in valve book is correct
- Clean debris from the valve box to make operating the valve easier
- Verify that the type and size of the operating nut or curb valve type matches the listing can be operated with the keys and tool normally carried by gas company personnel
- Verify the valve box lid is clearly identified with the word "Gas"
- Verify the valve number identification for each valve
- Check the pipeline facilities for atmospheric corrosion
- Partially operate the valve to ensure it is operable
- Lubricate the valve if necessary.

Odorization

- (1) **Odorant Requirements.** Combustible gas transported through distribution pipeline, must contain an odorant so that it is readily detectable by a person with normal sense of smell at a concentration of one-fifth its lower explosive limit in air.

The odorant used must not be harmful to the materials used in the piping system or to people, and must not produce harmful products of combustion.

- (2) **Sampling for Odorant.** Natural gas is monitored for odorant as required by 49 CFR 192.625 and 807 KAR 005 022.

Purging

- (1) **Required Purging.** Whenever a main or service line is being put into service, it is necessary for all air or other non-combustible gas to be purged from the line. Once the level of Natural Gas at the purge point is at a minimum of 90% gas, purging will stop so as to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).
- (2) **Safety Precautions.** If a polyethylene main is being purged, special precautions must be followed to prevent static electricity from discharging and igniting the escaping gas. Such precautions are described in “Prevention of Accidental Ignition Operator Qualification Task”.

Anytime air is being purged with gas, or gas is being purged with air, it is necessary to maintain a rapid flow rate. This will ensure turbulence at the gas/air interface, minimizing the size of the combustible mixture zone.

Care must be taken to ensure that gas is not discharged in an area in which it will accumulate and create a hazard. Potential ignition sources must be kept away.

Leakage Survey

(1) Frequency of Surveys.

Leakage surveys must be conducted as often as needed to discover leaks, which could result in a hazard. Leakage survey with leak detector equipment must be conducted in business districts at intervals not exceeding 15 months, but at least once each calendar year. Outside business districts intervals must not exceed 5 years, however for catholically unprotected distribution lines intervals may not exceed 3 years.

Additional surveys are necessary to assure that leaks have not developed following earthquake, major excavation activities, blasting, washout, landslide, or ground settlement near gas pipeline facilities.

Additional survey may be required as a result of investigation of a failure as covered in “Investigation of Failures.”

Surveying will address the mandate to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).

(2) Method of Performance of Leakage Survey.

Leakage survey may be conducted using either the surface or subsurface method.

A surface gas detection survey is a continuous sampling of the atmosphere performed using either portable or mobile equipment. Sampling is conducted at ground level for buried gas facilities and adjacent to above-ground facilities with a gas detector system capable of detecting a concentration of 50 ppm or gas in air at any sampling point.

Subsurface gas detection survey shall consist of testing bar holes with a combustible gas indicator or other instrument capable of detecting 10% or less of the lower explosive limit. The bar holes should penetrate to the depth of the main as close as practical to the main, taking care to avoid damaging the main. The sample should be drawn from near the bottom of each hole, taking care to avoid drawing water into the instrument. The instrument used should be equipped with a device to prevent liquid from being drawn.

Spacing of bar holes may be determined in accordance with the proximity to buildings and underground structures, such as sewers and manholes. In those areas where leaking gas would present the greatest hazard spacing should be closest. In all cases bar hole samples shall be taken near the service riser at the customer's meter. Areas in which service lines are near sewer lines or building foundations shall be sampled at intervals as close as necessary, but not to exceed 20 feet. Catch basins, manholes, and other underground structures near mains and service lines should be tested near the bottom.

Spacing of bar holes for surveying mains in close proximity to buildings or underground structures should be at intervals of twenty feet or less.

Sewers, catch basins, ditch lines and other low areas in the proximity of mains and services shall be tested for gas as part of any leakage

(3) Grading Leaks. Each leak discovered must be graded according to the following:

- (a) Grade 1 - Hazardous Leak.** Any leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until conditions are no longer hazardous. A leak which results in a measurable quantity of gas migrating into any buildings used for human occupancy, or concentration of 50% or more of the lower explosive limit in a sewer, manhole, or other underground structure is Grade 1.

- (b) **Grade 2 – Non-hazardous Leak.** Any leak that is recognized as being non-hazardous at the time of detection but justifies scheduled repair within 6 months based on probable future hazard.

Generally, an outdoor leak in a main or service line and in which gas is not migrating into or near a building or underground structure is Grade 2. A leak that results in a slight concentration of gas migrating into a sewer, manhole or other underground structure away from any building used for human occupancy may be a Grade 2.

- (c) **Grade 3 - Leak.** Any leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous (less severe than a Grade 2.) may be considered to be a Grade 3 leak. This will be monitored every 12 months not to exceed 15 months but at least each calendar year.

A very small leak, such as a fitting or valve on a meter loop, where the source of the leak is apparent and predictable may be Grade 3.

- (4) **Disposition of Leaks.** Any Grade 1 leak must receive immediate action to control the escape of gas or otherwise eliminate likely hazards. Normally the source of gas to the leak will have to be shut off using valves.

A Grade 2 leak may be scheduled for repair in a timely manner. Anticipated cold weather should be considered when scheduling repairs. Freezing ground surface may stop the ventilation of gas and force migration below ground. Also, interruption of service to customers presents greater hardship in cold weather.

Any Grade 2 leak not repaired within 6 months should be rechecked to assure that it has not become more hazardous and documentation as to why the leak was not repaired and when it will be scheduled, this will address the requirement to minimize the release of Natural Gas into the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).

A Grade 3 leak is not required to be repaired, but must be monitored annually to verify its classification, if the Grade 3 Leak has not been repaired within one calendar year then documentation of the leak, when it is scheduled for repair and why this repair has been delayed will be done to meet the requirements of the mandate to minimize the release of Natural Gas in to the atmosphere per PHMSA Mandate 12-27-21 (see Appendix A).. If the leak becomes severe enough to be classified as Grade 2, it must be scheduled for repair accordingly.

Records must be maintained of each leakage survey to document the areas surveyed and results. Survey dates, description of survey area, addresses of locations of leaks and their grades, type of instruments used, survey method, and names of survey technicians should be included.

- (5) **Leak Records.** Records must be kept for all leaks reported to the company or discovered by the company or its employees. Records must be retained for at least 5 years and must contain address or location, method of detection or receipt of notice, date of detection, date of repair, follow-up surveillance dates, grade, and description of cause and method of repair for each leak.

The leak records kept should contain information consistent with the annual reporting requirement of 49 CFR 191.11.

Abandonment or Inactivation of Facilities

Each pipeline abandoned in place must be disconnected from all sources of gas and purged if the volume of gas contained is sufficient to present a hazard. The open pipe ends are to be sealed in a gas tight and watertight manner using an appropriate mechanical fitting, heat fusion, expanded foam or other effective method.

Whenever service to a customer is discontinued one or more of the following actions must be taken:

- a. The valve that is closed to prevent the flow of gas to the customer must be locked or otherwise prevented from operation by unauthorized persons.
- b. A mechanical device or fitting must be installed in the service line or meter assembly to prevent the flow of gas. A disc installed between the meter inlet and swivel is sufficient for this purpose.
- c. The customers piping must be disconnected from the supply of gas and the open pipe ends sealed.

If a customer is permanently disconnected or is expected to be discontinued for an extended time period, the service line should be disconnected either at the main or at the entrance to the customers property.

Records should be maintained of inactive facilities to show the locations, dates, methods of isolation from gas, and other information, which will be needed later to properly return to service.

Preventing Accidental Ignition

- (1) **Scope of the Program.** Steps must be taken to minimize the probability of ignition of gas anytime gas is blowing to atmosphere, and in which ignition would present a danger to the public, personnel, or property.
- (2) **Specific Precautions to Take.** Whenever a hazardous amount of gas is being discharged into open air the following precautions shall be taken:
 - a. Avoid discharging natural gas into a confined space.
 - b. If in an area where public access is likely place barricades, traffic cones, or other controlling devices with suitable warning signs to limit ingress by the public.
 - c. Remove all apparent sources of ignition from the area of escaping gas. Motor operated equipment, open flame, smoking tobacco, two-way radio equipment, and electric switches are all possible ignition sources.
 - d. Avoid wearing nylon, polyester, or other synthetic clothing while working around escaping gas. Synthetic materials are capable of producing static electricity, particularly when the humidity is low.
 - e. Test for presence of combustible gas in excavations before entering. Avoid entering if combustible gas is present at a concentration of greater than 20% of the lower explosive limit. Use mechanical blowers if necessary to maintain less than 20% L.E.L. when working in excavation.
 - f. Do not perform cutting, welding, heat fusion or other mechanical operations on mains containing gas-air mixtures. Mains must contain 100% gas or 100% air (or inert gas) when construction or maintenance work is performed.
 - g. Whenever separating metallic pipe, place an electrical bond wire across the area of separation to maintain electrical continuity and eliminate sparking.
 - h. Whenever gas is discharging from plastic pipe special precautions shall be taken to prevent static discharge and spontaneous ignition.

- (3) **Special Precautions for Polyethylene Pipe.** Gas flowing at high velocity through polyethylene pipe may create a static electric charge on the wall of the pipe and on any particles of foreign material carried in the gas stream. This can cause ignition of the flowing gas to occur spontaneously. There are certain precautions that can be taken to minimize this probability of occurrence.
- a. When a plastic main or service line is punctured and must be squeezed to stop the flow of gas the squeezing should be done from a second hole a safe distance from the escaping gas.
 - b. Wet cloth, cotton, canvas, burlap, or other natural fabric should be wrapped around the damaged or open pipe near the point of discharge. The wet fabric must contact the ground, and the ground must be damp or wet. Liquid detergent should be mixed with the water used to wet the rags.
 - c. A metal pipe should be used as the final discharge stack for purging or otherwise blowing gas to atmosphere. The metal pipe must be electrically grounded using a stranded copper wire and ground rod driven into ground.

APPENDIX A:

Burkesville Gas Company is following the Operations Manual which addresses the elimination of Hazardous Leaks and Minimizing the release of Natural Gas from their pipeline per the following Mandate.

Pipeline Safety: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities

AGENCY:

Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION:

Notice; issuance of advisory bulletin.

SUMMARY:

PHMSA is issuing this advisory bulletin to remind each owner and operator of a pipeline facility that the “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020” (PIPES Act of 2020) contains a self-executing mandate requiring operators to update their inspection and maintenance plans to address eliminating hazardous leaks and minimizing releases of natural gas (including intentional venting during normal operations) from their pipeline facilities. Operators must also revise their plans to address the replacement or remediation of pipeline facilities that are known to leak based on their material, design, or past operating and maintenance history. The statute requires pipeline operators to complete these updates by December 27, 2021.

FOR FURTHER INFORMATION CONTACT:

Sayler Palabrica, by phone at 202-366-0559 or by email at Sayler.Palabrica@dot.gov.

SUPPLEMENTARY INFORMATION:

Natural gas is composed primarily of methane, therefore leaks and other releases of natural gas emit methane gas into the atmosphere. According to the U.S. Environmental Protection Agency (EPA), methane is a potent greenhouse gas with a global warming potential (GWP) of 28-36 over 100 years.^[1] Compared to carbon dioxide, methane gas has a stronger warming effect, but a shorter lifespan in the atmosphere. Due to the high GWP and short lifespan of methane gas in the atmosphere, minimizing releases of natural gas (both fugitive and vented emissions) has relatively near-term benefits to mitigating the consequences of climate change. Likewise, remediation or replacement of pipeline facilities that are known to leak based on material, design or past operating and maintenance history can result in enhanced public safety, environmental protection, and economic benefits.

The “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020” ([Pub. L. 116-260](#), Division R; “PIPES Act of 2020”) was signed into law on December 27, 2020. This law contains several provisions that specifically address the elimination of hazardous

leaks and minimization of releases of natural gas from pipeline facilities. Section 114(b) of the PIPES Act of 2020 contains self-executing provisions that apply directly to pipeline operators. This section requires each pipeline operator to update its inspection and maintenance plan required under [49 U.S.C. 60108](#)(a) no later than one year after the date of enactment of the PIPES Act of 2020 (*i.e.*, by December 27, 2021) to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from the operators' pipeline facilities ([49 U.S.C. 60108](#)(a)(2)(D)). The PIPES Act of 2020 also requires those plans to address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history ([49 U.S.C. 60108](#)(a)(2)(E)). In addition, [49 U.S.C. 60108](#)(a)(2) requires that operators continue updating these plans to meet the requirements of any future regulations related to leak detection and repair that are promulgated under [49 U.S.C. 60102](#)(q).

Advisory Bulletin (ADB-2021-01)

To: Owners and Operators of Gas and Hazardous Liquid Pipeline Facilities.

Subject: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities.

Advisory: The PIPES Act of 2020 contains self-executing provisions requiring pipeline facility operators to update their inspection and maintenance plans to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from their systems before December 27, 2021. PHMSA expects that operators will comply with the inspection and maintenance plan revisions required in the PIPES Act of 2020 by revising their operations and Start Printed Page 31003maintenance (O&M) plans required under [49 CFR 192.605](#), 193.2017, and 195.402, to address the elimination of hazardous leaks and minimize releases of natural gas from pipeline facilities. The plans must also address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past O&M history. The plans must in be in writing, tailored to the operator's pipeline facilities, supported by technical analysis where necessary, and sufficiently detailed to clearly describe the manner in which each requirement is met. For additional guidance on O&M plans for hazardous liquid and natural gas pipeline facilities, see "Operations & Maintenance Enforcement Guidance," part 192 subparts L and M, page 17, available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5776/o-m-enforcement-guidance-part-192-7-21-2017.pdf>; and "Operations & Maintenance Enforcement Guidance," part 195 subpart F, page 18, available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5781/o-m-enforcement-guidance-part-195-7-21-2017.pdf>.

Pursuant to [49 U.S.C. 60108](#)(a)(3), as amended by section 114(a) of the PIPES Act of 2020, PHMSA and state authorities with a certification under [49 U.S.C. 60105](#) will inspect operators' revised O&M plans in calendar year 2022, and such inspections must be completed by December 27, 2022. During these inspections, PHMSA, or the relevant state authority, is required to evaluate whether the plans adequately address items listed in section 114 of the PIPES Act of 2020.

Operators need to consider the following items as they update their plans to comply with section 114 of the PIPES Act of 2020:

- O&M plans must be detailed to address the elimination of hazardous leaks and minimization of releases of natural gas from the operators' pipeline facilities;

meaning pipeline operators must update their plans to minimize, among other things, fugitive emissions and vented emissions from pipeline facilities. PHMSA and state inspections, therefore, will evaluate the steps taken to prevent and mitigate both unintentional, fugitive emissions as well as intentional, vented emissions. Fugitive emissions include any unintentional leaks from equipment such as pipelines, flanges, valves, meter sets, or other equipment. Vented emissions include any release of natural gas to the atmosphere due to equipment design or operations and maintenance procedures. Common sources of vented emissions include pneumatic device bleeds, blowdowns, incomplete combustion, or overpressure protection venting (e.g., relief valves).

- O&M plans must address the replacement or remediation of pipelines that are known to leak based on the material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history of the pipeline. PHMSA and state inspections will include an evaluation of how the material present in the pipeline system, design of the system, as well as the past O&M history of the system, contribute to the leaks that occur on the system. PHMSA and states will evaluate whether the plans adequately address reducing leaks on operators' pipeline systems due to the aforementioned factors.
- Operators must carry out a current, written O&M plan to address public safety and the protection of the environment. In addition to the new statutory requirement that PHMSA and state inspections consider the extent to which the plans will contribute to the elimination of hazardous leaks and minimizing releases of natural gas from pipeline facilities, PHMSA's inspections will continue to include an evaluation of the extent to which the plans contribute to both public safety and the protection of the environment.

Developing and implementing comprehensive written O&M plans is an effective way to eliminate hazardous leaks and minimize the release of natural gas from pipeline systems. PHMSA anticipates these self-executing statutory mandates will result in enhanced public safety and reductions in pipeline emissions thereby reducing impact on the environment. Issued in Washington, DC, on June 4, 2021, under authority delegated in [49 CFR 1.97](#).

Alan K. Mayberry,
Associate Administrator for Pipeline Safety.

Footnotes

1. "Understanding Global Warming Potentials," U.S. EPA, available at <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

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**Operations & Maintenance Manual
Reviews and Changes
For
The Burkesville Gas Company Gas System**

Date	Affected Program Section	Description of Change and Purpose
3-1-2019	Written Plan	Plan Updated
12-2021	Written Plan	PSC Contact info, PHMSA advisory bulletin, HDD requirements - reviewed by all employees
5-20-2022	Written Plan	Review plan and set up for printing