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December 5, 2011

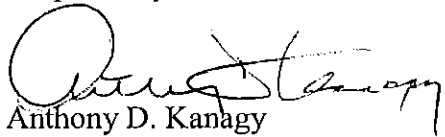
Rosemary Chiavetta  
Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2nd Floor North  
P.O. Box 3265  
Harrisburg, PA 17105-3265

**RE: Natural Gas Pipeline Replacement and Performance Plans**  
**Docket No. M-2011-2271982**

Dear Secretary Chiavetta:

Enclosed for filing please find the Comments of UGI Utilities, Inc. – Gas Division, UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. for the above-referenced proceeding. Copies will be provided as indicated. Questions related to these Comments should be directed to Kent D. Murphy, Esquire, Group Counsel – Energy and Regulation for UGI Corporation, at 610-768-3631.

Respectfully Submitted,



Anthony D. Kanagy

ADK/skr

Enclosure

cc: Paul Metro, Chief, Gas Safety Division (*via email*)  
Robert Young, Deputy Chief Counsel (*via email*)

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Natural Gas Pipeline Replacement and                   :   Docket No. M-2011-2271982  
Performance Plans    :

**COMMENTS OF UGI UTILITIES, INC. – GAS DIVISION,  
UGI PENN NATURAL GAS, INC. AND UGI CENTRAL PENN GAS, INC.**

**TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:**

**I.     INTRODUCTION**

On November 10, 2011, the Pennsylvania Public Utility Commission (“Commission”) entered a Tentative Order (“November 10 Order”) in the above-captioned proceeding. The November 10 Order addressed three subjects: (1) Distribution Integrity Management Plans (“DIMP Plans”) and Integrity Management Plans (“IM Plans”), (2) Frost Patrols, and (3) Pipeline Replacement and Performance Plans (“PRP Plans”). In the November 10 Order, the Commission required natural gas distribution companies (“NGDCs”) to submit their DIMP and IM plans to the Chief of the Commission’s Gas Safety Division within 30 days. The Commission also required NGDCs to conduct extensive periodic Frost Patrols effective immediately. In addition, the Commission requested that NGDCs submit comments regarding PRP Plans by December 2, 2011.

On November 21, 2011, the Commission issued a Secretarial Letter (“November 21 Secretarial Letter”) revising and clarifying the November 10 Order. The Commission recognized the confidential nature of DIMP and IM Plans and requested that NGDCs submit comments to the Commission by December 5, 2011 regarding the submission of these plans. The Commission also noted that NGDCs could submit these plans to the Gas Safety Division but were not required to submit them pending further order of the Commission.

With regard to Frost Patrols, the Commission revised its November 10 Order to require NGDCs to conduct Frost Patrols as specified in their respective DIMP and IM Plans. In addition, the Commission required NGDCs to submit comments by December 5, 2011 regarding Frost Patrol issues. The Commission further required NGDCs to schedule meetings with the Chief of the Gas Safety Division between December 6, 2011 and December 15, 2011. Finally, the Commission noted that it would hold a special Public Meeting on December 22, 2011 to address Frost Patrols and the submission of DIMP Plans.

With regard to PRP Plans, the Commission extended the comment period from December 2, 2011 to January 12, 2012. The Commission further noted that Reply Comments may be filed by January 27, 2012. The Commission ratified the provisions of the November 21 Secretarial letter on December 1, 2011.

Pursuant to the November 21 Secretarial Letter, UGI Utilities, Inc. – Gas Division (“UGI”), UGI Penn Natural Gas, Inc. (“PNG”) and UGI Central Penn Gas, Inc. (“CPG”) (collectively the “UGI NGDCs” or “UGI Companies”) hereby submit their comments regarding the submission of DIMP and IM Plans and regarding Frost Patrols. The UGI Companies agree with the Commission’s decision to seek comments from NGDCs regarding these issues. In particular, the UGI Companies recognize the safety issues that the Commission is seeking to address through increased Frost Patrols, and through these Comments the UGI Companies are providing additional facts for the Commission to consider with regard to Frost Patrols.

## **II. SUMMARY OF COMMENTS**

The UGI Companies are NGDCs subject to the Commission’s regulatory jurisdiction. Collectively, the UGI Companies serve approximately 574,000 customers throughout Pennsylvania. The UGI NGDCs own, operate, and maintain over 11,000 miles of natural gas pipelines in the Commonwealth and, working with the Commission’s gas safety officials, engage

in extensive and comprehensive inspection and maintenance efforts to promote the safe operation of these pipeline facilities that not only meet, but exceed, the applicable federal pipeline safety laws incorporated by reference into the Commission's regulations at 52 Pa. Code § 59.33 and all other applicable Commission regulations. In developing and applying these gas safety requirements there is, of necessity, a balancing of the paramount goal of safe operation with the need to operate natural gas facilities in a cost effective and prudent manner. Thus, applicable federal standards recognize and apply the concept of risk assessment and quantification so that gas safety efforts are directed to the areas of greatest need, which may change over time as risks change. UGI NGDCs employ engineers and other professionals, as well as software tools, to assess risks and maximize gas safety efforts.

The many efforts employed by the UGI NGDCs to assess and respond to gas safety risks are reflected in written DIMP plans prepared in compliance with 49 CFR § 192 Subpart P. The UGI NGDCs also have submitted their DIMP plan to the Commission's Gas Safety Division of the Bureau of Investigation and Enforcement. The UGI NGDCs further note that they are scheduled for audit by the Gas Safety Division and the U.S. Department of Transportation's Pipeline and Hazardous Material Safety Administration ("PHMSA") during the week of December 5, 2011.

Appendix H to the UGI NGDCs DIMP plan lists forty-five activities, including Frost Patrols, which the UGI NGDCs perform to enhance safety above the minimum federal requirements, and additional potential actions which are under review. In addition, UGI has been performing additional cast iron surveys where deemed prudent, and beginning no later than January 1, 2012, the UGI NGDCs, among other enhancements to its leak surveying activity, will

be initiating special walking leak surveys in targeted urban areas and biweekly leak surveys of its entire cast iron system.

In addition to the specific actions set forth in the Companies' DIMP Plans, the Companies have responded to requests from Commission staff to take additional actions regarding Frost Patrols. The Commission has traditionally requested, on an annual basis, that NGDCs conduct Frost Patrols. The UGI NGDCs understood these requests to apply to pipeline facilities identified by applicable engineering standards to be subject to the risk of leaks caused by severe cold weather. In the case of the UGI NGDC systems, the type of pipe most susceptible to the effects of extreme climactic conditions would be the cast iron mains. In accordance with the UGI NGDCs' current procedures, the Companies have complied with the Commission staff requests for Frost Patrols by conducting extra leak sweeps of those facilities subject to additional risks when weather conditions warranted such actions.

The UGI NGDCs are supportive of the Commission's efforts to increase safety by implementing enhanced leak survey processes. However, the UGI NGDCs believe that the Commission should carefully consider a broad range of issues before requiring NGDCs to implement enhanced Frost Patrols. In particular, the Commission should consider the effectiveness of enhanced Frost Patrol procedures in relationship to the resources available to each NGDC to conduct enhanced Frost Patrols. The UGI NGDCs believe that it will be more effective to target Frost Patrols to specific piping and areas of their systems rather than patrolling less susceptible pipe and all areas on the same schedule. As explained below, the UGI NGDCs do not have the necessary resources, including necessary equipment, to conduct the Frost Patrols that would have been required under the November 10 Order. Therefore, the UGI NGDCs

believe that it will be more effective, from a public safety perspective, to have different survey procedures for different segments of its systems.

The Commission also should consider the effect that exigent circumstances, including weather or potential system emergencies, would have on any enhanced Frost Patrol procedures. For example, if a large snow storm hits an NGDC's service territory, it may not be able to conduct Frost Patrols within a set schedule that otherwise would have been achievable absent the snow storm.

UGI believes that the enhancements discussed in Section III.B to these comments provide a pragmatic approach to leak monitoring the UGI cast iron and unprotected bare steel sections of its pipeline network. These enhancements will target the cast iron system and other higher risk pipelines with greater frequency and, in the case of higher density population centers, increased walking survey measures.

These are a few examples of issues that the Commission should consider before requiring enhanced Frost Patrols. As explained above, the UGI NGDCs fully support the Commission's intent to enhance gas safety. In order to develop an achievable, cost effective solution, the UGI NGDCs request that the Commission work with the UGI NGDCs to develop such procedures. The UGI NGDCs believe that this is the Commission's intent given the directive in the November 21 Secretarial Letter for all NGDCs to schedule individual meetings with Commission staff.

### **III. COMMENTS IN RESPONSE TO THE NOVEMBER 21 SECRETARIAL LETTER**

#### **A. DIMP PLANS**

In the November 21 Secretarial Letter, the Commission requested that NGDCs provide comments regarding the submission of DIMP and IM plans and further noted that NGDCs may

submit these plans to the Gas Safety Division. As explained above, the UGI NGDCs have already submitted their DIMP plans to the Commission's Gas Safety Division. In addition, UGI has previously submitted its IM plan to Commission staff and, consistent with the November 21 Secretarial Letter, will submit its current version to Commission staff as it comes available. The UGI Companies' DIMP and IM plans were provided to the Commission pursuant to the confidentiality protections provided in Chapter 102 of the Commission's regulations, 52 Pa. Code Chapter 102, and UGI would anticipate that any future changes that are provided to the Commission would be subject to the same protections.

**B. FROST PATROLS**

On page 2 of the November 21 Secretarial Letter, the Commission lists four specific Frost Patrol topics for NGDCs to address in their comments. The UGI NGDCs' responses to these four Frost Patrol topics are below:

**1. A full description of the utility's prior Frost Patrol protocols over the five (5) winter seasons preceding its DIMP/IM plans.**

The UGI NGDCs' leak survey protocols are set forth in Attachment 1 to these Comments. Attachment 1 lists: (1) the minimum distribution main survey and service line leak survey protocols required by federal law, (2) the UGI NGDC Frost Patrol, main survey and service line leak survey protocols, which have been employed by the Companies for the five winter seasons preceding their DIMP plans and which are provided currently, and (3) a description of enhanced surveys that the UGI NGDCs agree to implement.

The UGI NGDCs note that UGI recently acquired both PNG (acquired in 2006) and CPG (acquired in 2008). The UGI NGDCs are in the process of unifying their Frost Patrol procedures but have not completed this unification to date. Therefore, each of the UGI NGDCs Frost Patrol protocols are listed separately on Attachment 1.

As shown in Attachment 1, winter Frost Patrols are not required by federal law. The UGI NGDCs currently perform winter Frost Patrols based upon weather conditions. For UGI Gas, Frost Patrol surveys are initiated when the accumulated frost degree days (degrees below 27 degrees Fahrenheit) equal or exceed 200. For PNG and CPG, Frost Patrols are initiated when there is measurable ground frost. Notwithstanding the aforementioned thresholds, special targeted surveys are initiated when, in the judgment of UGI's engineers and in the interest of safety, conditions dictate. Factors considered for the initiation of special surveys include objective measures such as the frequency of cast iron main breaks or the number of experienced leaks in a given portion of the service area.

The UGI NGDCs also conduct extensive additional leak surveys. The UGI NGDCs conduct annual walking surveys of business districts. In addition, federal law requires the UGI NGDCs to perform leak surveys of cathodically protected steel and plastic mains once every five years. CPG's practice is to conduct leak surveys for these type of mains pursuant to the federal requirements, while both UGI and PNG go beyond the federal requirements. PNG conducts leak surveys for cathodically protected steel main every three years and plastic mains every year. UGI conducts leak surveys for cathodically protected steel and plastic mains every four years.

Federal law requires the UGI NGDCs to survey cast iron, wrought iron and non-cathodically protected steel distribution mains outside of business districts once every three years. CPG meets the federal requirements with regard to inspecting these mains. PNG exceeds the federal requirements by surveying these mains annually. In addition, UGI surveys all of its cast iron distribution mains at least twice a year.

Federal law requires the NGDCs to survey cathodically protected steel and plastic service lines once every five years. UGI and CPG comply with the federal requirements, and PNG

exceeds the federal requirements by inspecting these service lines every three years. For all other types of service lines, the UGI NGDCs meet the federal requirement of surveying every three years.

**2. A full description of the utility's current Frost Patrol protocols under its DIMP/IM plans (if different from above).**

The UGI NGDCs' current Frost Patrol protocols are not different than the Frost Patrols it has implemented over the five winter seasons preceding its DIMP Plan and its IM plan. Note that there are separate time frames for the DIMP and IM plans as they became effective in 2011 and 2002, respectively. UGI submits that its frost surveying measures underwent no significant changes over the relevant time periods, noting however, that over the course of the past year, it has implemented special cast iron surveys in response to an earthquake this past summer and as other conditions have dictated.

**3. A full description of enhanced Frost Patrol Protocols the utility proposes to perform this winter.**

The enhanced Frost Patrol protocols that the UGI NGDCs are prepared to perform this winter are set forth in Attachment 1. In particular, the UGI NGDCs will survey all of their cast iron distribution mains every two weeks, weather permitting, beginning January 1, 2012 through March 31, 2012. The Companies also will conduct special walking surveys in business and urban areas for those areas the Companies identify as higher risk areas. These surveys will be conducted once during the winter season. In addition, the UGI NGDCs propose to survey all metallic unprotected services in 2012.

The UGI NGDCs believe that the additional surveys described above focus on the specific areas of their systems which will further enhance overall safety. The UGI NGDCs note that these surveys will require additional resources and equipment but the Companies believe

that they will be able to accomplish these additional surveys within the time periods described above.

4. **A discussion about whether Commission issued standards for Frost Patrols should be considered going forward, and whether such standards should be determined on a utility by utility basis or on an industry wide basis.**

The UGI NGDCs believe that any Commission-issued standards on a going forward basis should be determined on a utility by utility basis. The UGI NGDCs are concerned that industrywide standards may be too generic and may not be appropriate for all NGDCs. A utility by utility approach would also be consistent with the intent of DIMP regulations where each operator is required to identify and address the specific threats to its distribution system.

For example, the UGI NGDCs had several concerns with the industrywide approach initially proposed in the November 10 Order, including the following: (a) Frost Patrols would have to be conducted between November 1 and April 30 of each year without regard to the ambient temperatures experienced and other operating conditions which formed the objective basis for conducting special "Frost Patrols"; (b) the frequency of Frost Patrols would be applied to section of its bare steel system irrespective of risk (i.e. location, frequency and quality (hazardous v. non-hazardous) leaks; (c) the inclusion of services and steel pipelines in the required Frost Patrols, when such facilities are not generally subject to special risks as a result of adverse climactic conditions; and (d) all leaks would have to be repaired even though under federal standards some leaks are so minor that they do not create a significant risk of harm and need not be immediately repaired. These concerns are explained in greater detail next.

The November 10 Order would have required NGDCs to undertake Frost Patrols when not warranted by weather conditions. Throughout the industry, Frost Patrols are undertaken when ground freezes occur, because ground freezes can result in additional stress on inflexible

cast iron pipe, thereby leading to the possibility of a break. By directing Frost Patrols based upon an arbitrary start and end date for all NGDCs in the Commonwealth, Company resources may be redirected away from other matters, potentially including efforts to repair identified leaks before the ground freezes and prescribed federally mandated activities.

The UGI NGDCs have in place a proactive plan for conducting Frost Patrols and for leak repairs, which they believe are a more efficient and effective way to manage leaks than the Frost Patrols suggested in the November 10 Order. The UGI NGDCs' current Frost Patrol procedures exceed the minimum leak survey requirements defined in the Federal Code, Title 49, Section 192.

In addition, the Frost Patrol schedule established by the November 10 Order was vague and relied upon Class location criteria not maintained by the UGI NGDCs. As directed by the November 10 Order, the determination of whether pipe with a leak history or leaks is to be surveyed weekly or monthly depends upon whether the pipe is in a Class 3 or 4 area, or a Class 2 area. The classification of pipe by area is defined in 49 CFR § 192.5, but is generally applied to transmission pipelines and for system design considerations. Class 2 areas are areas within 200 meters of a continuous 1 mile length of pipeline that have 10 – 46 buildings intended for human occupancy per mile of main. Class 3 areas are areas within 200 meters of a continuous 1 mile length of pipeline with 46 or more buildings intended for human occupancy per mile of main or where the pipeline lies within 91 meters of a building or outdoor area occupied by 20 or more people five days per week for 10 weeks in a year. A Class 4 area is any area where buildings four or more stories above ground are “prevalent.”

The UGI NGDCs do not maintain data regarding all building locations along distribution mains. Unlike transmission pipelines, distribution lines are expansive grid networks. As such,

information regarding Class locations based on a rolling mile, as is done for transmission lines, is not currently available and cannot be determined readily as the information is not readily available in a usable form and cannot be made usable without the redirection of valuable engineering and information system resources. As a result, in order to be sure they were in compliance with the Commission's Order, the UGI NGDCs would need to survey weekly all cast iron pipe and all bare steel pipe with a leak history or leaks.

Additionally, the definition of pipe "with a leak history" was undefined in the November 10 Order. The Order was unclear as to whether a leak caused by contractor damage at one end of a five mile long pipe five years ago meant that the entire pipe has a leak history and would have to be surveyed weekly. Similarly, it was unclear whether mains would need to be surveyed weekly if a customer service had a leak.

The UGI NGDCs currently have approximately 1300 miles of unprotected bare or coated steel mains in its system, and a substantial number of unprotected bare and unprotected coated steel services. All of these pipes would have to be surveyed, at a minimum, on a monthly basis under the requirements set forth in the November 10 Order, and the UGI NGDCs believe a substantial portion of this pipe would have had to be surveyed weekly under the November 10 Order. Ground freezes, however, do not generally cause leaks to develop in unprotected bare or coated steel pipe, because steel has greater tensile strength than cast iron and so the risk of breakage or increased leakage is far smaller for bare steel mains than for cast iron mains. Therefore, the benefit of weekly or monthly surveys for all bare steel mains, regardless of the risk profile of that pipe, is brought into question.

The UGI NGDCs currently have neither the manpower nor the equipment available to undertake such tasks within any reasonable period of time. The UGI NGDCs' initial estimate is

that it would have to hire or contract for 135 additional personnel to perform the surveys with the frequency suggested in the November 10 Order. The UGI NGDCs also would need to acquire at least 125 pieces of leak detection equipment and vehicles to undertake those surveys. Even if the UGI NGDCs would have started the hiring and supply acquisition process immediately, it would have taken several months to acquire the human resources and equipment to undertake the weekly survey requirements. The UGI NGDCs estimate that the annualized incremental cost of compliance would exceed \$5.7 million.

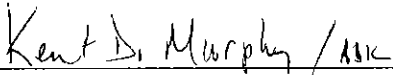
For reasons explained above, the UGI NGDCs support utility specific approaches to future Frost Patrol requirements, rather than an industrywide, "one size fits all" approach. There are many utility specific concerns that would be better addressed in specific utility proceedings rather than industrywide requirements. This approach would also be consistent with the federal DIMP regulations.

However, if the Commission decides that industrywide standards should be adopted, any change to the Commission's existing gas safety standards should be made through changes to the Commission's regulations at 52 Pa. Code §§ 59.33 – 59.36. In that way, a record can be developed, through opportunities for comment, on appropriate industrywide standards.

#### IV. CONCLUSION

UGI Utilities, Inc. – Gas Division, UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. support the Pennsylvania Public Utility Commission’s efforts to increase gas safety through enhanced Frost Patrols. As explained herein, the UGI NGDCs Frost Patrol efforts exceed the federal requirements, and the UGI NGDCs are willing to adopt additional Frost Patrol measures to enhance gas safety. Consistent with the Comments above, the UGI NGDCs request that the Pennsylvania Public Utility Commission consider a broad range of issues and provide NGDCs a full and fair opportunity to be heard prior to formally requiring enhanced Frost Patrol procedures.

Respectfully submitted,

  
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Date: December 5, 2011

Attorneys for UGI Utilities, Inc. –  
Gas Division, UGI Penn Natural Gas,  
Inc. and UGI Central Penn Gas, Inc.

# Attachment 1

## Regulatory Compliance Schedule for Distribution Pipelines CPG, PNG, UGI

Survey List	Code Requirement Frequency	Current Survey Frequency	Planned Additional or Accelerated Surveys
<b>Distribution Main Leak Survey (Non business, CP Steel, PE)</b>			
CPG	Once every 5 years	5 year	
PNG		3 year	
UGI		4 year	
<b>Distribution Main Leak Survey (Non Business Areas) - CI, WI, Non-CP Steel</b>			
CPG	Once every 3 yrs	Once every 3 yrs	
PNG		Annual	
UGI		Annual (CI is surveyed at least 2x/yr. in business and non-business areas)	
<b>Service Line Leak Survey - CP Steel, Plastic</b>			
CPG	Once every 5 years	5 year	
PNG		3 year	
UGI		5 year	
<b>Service Line Leak Survey - CI, WI, Non-CP Steel, Cu</b>			
CPG, PNG, UGI	Once every 3 yrs	Once every 3 years	Special service survey - Survey all metallic unprotected services annually, does not supersede current SLIP survey.
<b>Business Districts Leak Survey - Walking</b>			
CPG, PNG, UGI	Annual	Annual	
<b>Miscellaneous Surveys - Special</b>			
Special Winter/Frost Patrols & leak Surveys (3 Companies)	No requirement	Frost Surveys based on accumulated frost degree days (UGI) or measured frost depth (CPG/PNG).	Survey entire CI system every two weeks Jan 1 - Mar 31, weather permitting, supersedes existing Frost & Special patrol
<b>Special Business/Urban Area Leak Survey - Walking</b>			
CPG, PNG, UGI	No requirement	None	Special walking surveys of portions of business/urban areas once per year based on risk profile assessments