REBUTTAL TESTIMONY

OF

DARIN BURK

PIPELINE SAFETY PROGRAM MANAGER

SAFETY AND RELIABILITY DIVISION

ILLINOIS COMMERCE COMMISSION

Proposed General Increase in Rates For Delivery Service

North Shore Gas Company and The Peoples Gas Light and Coke Company

Docket Nos. 12-0511 & 12-0512 (consolidated)

January 16, 2013

Witness Identification

Q. Please state your name and business address?

A. My name is Darin Burk. My business address is 527 E. Capitol Avenue, Springfield, IL.

Q. By whom are you employed and in what capacity?

A. I am employed by the Illinois Commerce Commission ("Commission") as the Manager of the Pipeline Safety Program of the Safety and Reliability Division. In my current position on Commission Staff ("Staff"), I oversee the day-to-day operations of the Commission's Pipeline Safety Program, which performs audits and inspections in accordance with the Guidelines for State Programs issued by the U. S. Department of Transportation, ("USDOT") Pipeline and Hazardous Materials Safety Administration ("PHMSA"). Those audits and inspections are conducted to ensure that jurisdictional Illinois natural gas system operators are meeting the minimum federal safety standards as prescribed by 49 CFR Sections 191.23, 192, 193, 199 and by the Illinois Gas Pipeline Safety Act. (220 ILCS 20/ *et seq*.)

Q. Please describe your education and experience.

Prior to my employment with the Commission, I was a technician employed by Utility Safety and Design Inc. ("USDI") and the Southern Cross Corporation. Both companies provide field consulting service for the natural gas industry. My duties at USDI included natural gas leak detection, corrosion control monitoring, pipeline installation, pressure testing, uprating of pipeline systems, polyethylene pipe fusion, welding and fusion joint testing, and line stopping. Since coming to work in the

Pipeline Safety Program at the Commission, I have received extensive technical training provided by the Pipeline and Hazardous Materials Safety Administration Training and Qualification ("PHMSA TQ") branch of the USDOT. PHMSA TQ conducts training and qualification of state and federal pipeline safety inspectors. The inspectors receive technical education relating to the application and enforcement of pipeline safety standards. My training at PHMSA TQ included courses such as: Safety Evaluation of Gas Pipeline Systems, Gas Integrity Management, Welding and Welding Inspection of Pipeline Materials, Pipeline Failure Investigation Techniques, Pipeline Reliability Assessment, and Root Cause Incident Investigation. At the Commission, I held the position of Pipeline Safety Analyst for 17 years and was promoted to Pipeline Safety Program Manager in January of 2007.

Q. Did you file direct testimony in this matter?

A. No, I did not.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the rebuttal testimony of North Shore Gas Company's ("North Shore") and Peoples Gas Light and Coke Company's ("PGL") (collectively the "Companies" or "Utilities") witness Mr. Kyle Hoops regarding the installation of gas pipeline through sewer lines (commonly referred to as "cross bores") and the installation of certain plastic pipe fittings.

Q. What are your concerns regarding gas lines improperly installed through the sewer lines?

A. Mr. Hoops asserts that the cross bores are “a circumstance beyond the Utilities control." (NS-PGL Ex. 28.0, p. 7)

The underground utility infrastructure within the city of Chicago is a complicated system of pipes, pipelines and wires. To accommodate the varied operating conditions that a natural gas pipeline operator may encounter in facility installation, the Code of Federal Regulations (“CFR”) Title 49 Part 192 allows for operators to develop plans and procedures that will allow them to maintain compliance with the regulations based on their operating environment, rather than dictating that all operators follow identical plans and procedures. In addition, 49 CFR Section 192.605 requires operators of natural gas pipelines to develop manuals of procedures for conducting operations and maintenance activities and for emergency response. Such procedures are to be in place prior to conducting operation and maintenance functions. Pipeline replacement is considered an operation and maintenance function according to PHMSA. A prudent operator must have procedures that allow for the positive identification of the location of all underground utilities and substructures when directional drilling or boring is to be used for the installation of gas pipelines. Even when the approximate location of an underground facility has been identified and marked, the depth of the facility must be confirmed to avoid contact during the directional drilling process. The procedures must include methods to confirm that spatial separation of utilities has been maintained.

To ensure that pipeline operators were taking action to recognize the dangers associated with directional drilling, PHMSA issued an Advisory Bulletin on August 23, 1999. The Advisory Bulletin discusses identified hazards associated with direction drilling and advises operators to review their procedures. (Staff Ex. 19.0, Attachment 1)

In addition to the Advisory Bulletin, pipeline industry guidance such as the Gas Piping Technology Committee ("GPTC") Guide for Gas Transmission and Distribution Piping Systems ("GPTC Guidance"), Appendix G-192-6 includes guidance for pipeline operators associated with directional drilling operations. (Staff Ex. 19.0, Attachment 2) The GPTC Guidance is recognized pipeline industry guidance.

It is my opinion that the fact that PGL has identified locations where gas pipelines have been bored through sewers (NS-PGL Ex. 28.0 Rev., pp. 6-7) establishes that the PGL procedures were either inadequate or not followed.

Q. On the subject of pipe fittings, Mr. Hoops indicates that the costs associated with the plastic pipe fitting remediation are prudent and reasonable. He goes on to state that an external, industry-recognized expert concluded that the fittings as installed were safe, and that the Company could have sought a special permit as allowed by Title 49. (NS-PGL Ex. 28.0, p. 12) Do you have any response?

A. Yes. Pipeline operators are allowed to seek special permits that allow for installation of materials or components that have not been previously approved or manufactured

and marked according to an incorporated standard; however, the requirements of 49 CFR Section 190.341(b) state that the operator must seek the special permit and demonstrate that safety will not be compromised prior to installing the non-approved material or component. (Staff Ex. 19.0, Attachment 3) Special permits include specific installation and monitoring requirements that must be agreed to prior to installation. Special permits are not granted after a violation has been committed, that is, after an unapproved fitting has already been installed. Title 49 CFR Section 192.63 (a) states: Except as provided in paragraph (d) of this section, each valve, fitting, length of pipe, and other component must be marked: "(1) As prescribed by the specification or standard to which it was manufactured, except thermoplastic fittings must be marked in accordance with ASTM D2513-87 (incorporated by reference, see § 192.7)." During a meeting requested by PGL and held at the Commission's Springfield office on September 26, 2011, PGL informed Staff that the fittings installed in the Company's system were not marked as required and failed to provide documentation as to the standard to which the fittings were manufactured.

My extensive experience working with PHMSA allows me to state with complete confidence that, if the Companies would have sought a special permit to allow the fittings to permanently remain in the system, PHMSA would not have granted that permit.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

ADB-99-04

Aug 23, 1999

PIPELINE SAFETY ADVISORY BULLETIN
ADVISORY BULLETIN: ADB-99-04
Date: August 23, 1999

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

Summary: PHMSA is issuing this advisory bulletin to owners and operators operators of natural gas and hazardous liquid pipeline systems to advise them to review, and amend if necessary, their written damage prevention program to minimize the risks associated with directional drilling and other trenchless technology operations near buried pipelines. This action follows several pipeline incidents involving trenchless technology operations which resulted in loss of life, injuries, and significant property damage. It also corresponds to National Transportation Safety Board (NTSB) Safety Recommendation P-99- 1, which suggests that PHMSA * * * ensure that the operators' damage prevention programs include actions to protect their facilities when directional drilling operations are conducted in proximity to those facilities. This advisory bulletin emphasizes the importance of having procedures to mitigate the risks of directional drilling and other trenchless technology.

Subject: Directional Drilling and Other Trenchless Technology Operations Conducted in Proximity to Underground Pipeline Facilities

Purpose: To ensure that pipeline operators take actions to recognize the dangers associated with directional drilling and other trenchless technology operations, and to ensure that underground pipeline facilities are adequately located and protected from inadvertent damage.

Advisory: PHMSA urges all owners and operators of gas and hazardous liquid pipelines to review their operations, maintenance, and damage prevention programs to include effective actions to protect their underground facilities from the dangers posed by directional drilling and other trenchless technology operations. Operators should take actions to ensure that both company and contractor personnel are following safe practices.

Trenchless technologies, including directional drilling, are effective [[Page 46968]] excavating practices that can reduce the threat of third-party damage to gas and hazardous liquid pipelines. They can also mitigate environmental and other concerns associated with traditional trenching methods of pipe and cable installation.

However, the potential exists for trenchless technology operations to damage underground facilities, sometimes with catastrophic results. Directional drilling and other trenchless technology operations employ a variety of cutting, jetting, boring, reaming, and jacking techniques. These techniques can result in rupture or damage to existing underground facilities, including oil and gas pipelines, electric cables and ducts, water and sewer pipes, telecommunications ducts, fiber optic cables, and cable television facilities.

Usually, the exact depth of existing underground facilities is not known, even if the facilities are accurately located before directional drilling commences. In addition, many facilities are buried deeper than the minimums required by law and regulation. This can be caused by changes in the surface contours due to agricultural activities, landscaping, and road building. Damage to underground facilities can occur without any immediate indication to the operator. Sometimes a damaged underground facility will not fail for years after the completion of trenchless technology operations. Drilling equipment does not need to fully rupture a facility to create a hazardous situation.

Damage to coatings and other corrosion prevention systems can increase the risk of a delayed corrosion failure. Escaping and migrating gas can create a safety issue for people living and working near these facilities long after the completion of directional drilling and other trenchless technology operations. Leakage from a damaged or ruptured hazardous liquid pipeline can create environmental and safety issues.

The primary safety concern is ensuring that trenchless technology operations do not accidentally contact existing underground facilities. This can be averted by knowing the precise locations of all underground facilities in proximity to trenchless technology operations. In addition to full compliance with the one-call notification process, the operator should also consider thorough site surveys of the area of a proposed directional drilling or trenchless technology project to locate potential conflicts with underground facilities.

Information on the safe conduct of trenchless technology operations is available from various trade associations and technical publications. In addition, the Gas Piping Technology Committee, a standards committee composed of experts on

gas piping issues, publishes guidelines for planning and designing trenchless technology pipe installations in its Guide for Gas Transmission and Distribution Piping Systems, which is available from the American Gas Association.

Background: PHMSA revised its inspection form for hazardous liquid pipelines to examine how operators monitor directional drilling and other trenchless technology operations in the vicinity of underground pipelines. The pipeline safety regulations require pipeline operators to carry out a written damage prevention program for buried pipelines. The revised inspection form considers whether a pipeline operator's damage prevention program includes actions to protect their facilities when directional drilling operations are conducted in proximity to the pipeline. PHMSA will make similar changes to the natural gas pipeline inspection form in its next revision. In light of recent accidents involving trenchless technology operations, PHMSA is encouraging operators to carefully review their damage prevention program and make modifications as appropriate. PHMSA also notes the importance of accurately locating underground piping and ensuring the qualifications of personnel performing this work.

Additionally, NTSB Safety Recommendation P-99-1 (April 28, 1999) directs that PHMSA [w]hen reviewing pipeline operator safety programs, ensure that the operators' damage prevention programs include actions to protect their facilities when directional drilling operations are conducted in proximity to those facilities.

This recommendation reflects NTSB's investigation into the rupture of a natural gas pipeline near Indianapolis, Indiana. The ignition of the escaping gas caused a fatality and an injury. NTSB determined that the probable cause was the failure of the pipeline operator to ensure that safe directional drilling operations were conducted in proximity to underground facilities.

PHMSA believes that this Advisory Bulletin will encourage operators to recognize the dangers associated with directional drilling and other trenchless technology operations and to take appropriate action to ensure that underground facilities are adequately located and protected when these activities take place near these pipeline facilities.

For further information, contact Eben M. Wyman, (202) 366-0918, or by email at eben.wyman@rspa.dot.gov.

GM Appendix G-192-6. Substructure Damage Prevention Guidelines for Directional Drilling And Other Trenchless Technology

UBSTRUCTURE DAMAGE PREVENTION GUIDELINES

FOR DIRECTIONAL DRILLING AND OTHER TRENCHLESS TECHNOLOGIES

1 SCOPE

Damage to existing underground facilities can result from directional drilling or the use of other trenchless technologies. These general guidelines apply to directional drilling and trenchless technologies performed by the operator or a third party in proximity to gas facilities. In part, they provide the following.

(a) Criteria for planning and precautions.

(b) Recommended procedures.

2 DAMAGE PREVENTION WHEN INSTALLING FACILITIES

Precautions should be taken when installing gas facilities by directional drilling or other trenchless technologies, which may include the following.

(a) Using available one-call notification system(s) to have facilities within the immediate area located and marked; and directly contacting known, non-participating utility owners for locations of their facilities.

(b) Ensuring that known facilities are located and marked prior to commencing work.

(c) Exposing facilities within the immediate work area by hand excavation before starting a bore if the depths of the facilities are not established by other means.

(d) Considering sewer systems within the area, which are especially vulnerable to damage from boring operations for the following reasons.

(1) Sewer lines are often non-metallic, which make them difficult to locate.

(2) Clean-outs or other indications of sewer laterals may be hidden or non-existent.

(3) Damage may not be readily apparent when a sewer, particularly a gravity flow system, is pierced by a boring machine.

(e) Notifying residences and businesses in the area of impending work.

(f) Checking local regulations for the minimum separation distances between the new gas piping and the other facilities.

(g) Making arrangements with local authorities for traffic control, as necessary.

(h) Ensuring adequate clearance of overhead electric, telephone, or cable lines from construction equipment.

(i) Reviewing precautions recommended by manufacturers of trenchless technology equipment prior to construction.

(j) Following applicable state and local requirements for damage prevention.

3 PROTECTING EXISTING GAS FACILITIES

When either an operator or a third party shall excavate near an existing gas facility by directional drilling or using other trenchless technologies, the operator should consider the following.

(a) Where it is anticipated that the bore will cross an existing facility, or come within a safety zone (as established by the operator or a jurisdictional regulatory agency), expose that facility to determine its precise location to ensure adequate separation between the existing and proposed facilities.

(b) Where the bore will run parallel to an existing facility, expose that facility (pothole) or use locating technology to verify that adequate clearance is maintained between the bore and the existing facility during the boring operation, which includes the drilling of the pilot hole and back reaming. Calculation of the separation distance should account for the largest diameter back reamer that will be used in the boring process.

(c) Potholes used for visual inspection should be excavated at intervals ensuring clearance is maintained during boring operations. Factors to consider for pothole intervals include the following.

(1) Proximity of proposed bore path to the existing gas facilities.

(2) Type of existing and proposed facilities.

(3) Type of soil.

(4) Size and controllability of the bore.

(d) Locating existing facilities and the newly installed facility to ensure that the installation is in the intended location.

(e) If metallic facilities are exposed, see guide material under §192.459.

(f) Conducting a leak survey over gas facilities that could have been affected by the new installation.

§190.341 Special permits

(a) What is a special permit? A special permit is an order by which PHMSA waives compliance with one or more of the Federal pipeline safety regulations under the standards set forth in 49 U.S.C. 60118(c) and subject to conditions set forth in the order. A special permit is issued to a pipeline operator (or prospective operator) for specified facilities that are or, absent waiver, would be subject to the regulation.

(b) How do I apply for a special permit? Applications for special permits must be submitted at least 120 days before the requested effective date using any of the following methods:

(1) Direct fax to PHMSA at: 202-366-4566; or

(2) Mail, express mail, or overnight courier to the Associate Administrator for Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue, SE., East Building, Washington, DC 20590.

(c) What information must be contained in the application? Applications must contain the following information:

(1) The name, mailing address, and telephone number of the applicant and whether the applicant is an operator;

(2) A detailed description of the pipeline facilities for which the special permit is sought, including:

(i) The beginning and ending points of the pipeline mileage to be covered and the Counties and States in which it is located;

(ii) Whether the pipeline is interstate or intrastate and a general description of the right-of-way including proximity of the affected segments to populated areas and unusually sensitive areas;

(iii) Relevant pipeline design and construction information including the year of installation, the material, grade, diameter, wall thickness, and coating type; and

(iv) Relevant operating information including operating pressure, leak history, and most recent testing or assessment results;

(3) A list of the specific regulation(s) from which the applicant seeks relief;

(4) An explanation of the unique circumstances that the applicant believes make the applicability of that regulation or standard (or portion thereof) unnecessary or inappropriate for its facility;

(5) A description of any measures or activities the applicant proposes to undertake as an alternative to compliance with the relevant regulation, including an explanation of how such measures will mitigate any safety or environmental risks;

(6) A description of any positive or negative impacts on affected stakeholders and a statement indicating how operating the pipeline pursuant to a special permit would be in the public interest;

(7) A certification that operation of the applicant's pipeline under the requested special permit would not be inconsistent with pipeline safety

(8) If the application is for a renewal of a previously granted waiver or special permit, a copy of the original grant of the waiver or permit; and

(9) Any other information PHMSA may need to process the application including environmental analysis where necessary

(d) How does PHMSA handle special permit applications?

(1) Public notice. Upon receipt of an application for a special permit, PHMSA will provide notice to the public of its intent to consider the application and invite comment. In addition, PHMSA may consult with other Federal agencies before granting or denying an application on matters that PHMSA believes may have significance for proceedings under their areas of responsibility.

(2) Grants and denials. If the Associate Administrator determines that the application complies with the requirements of this section and that the waiver of the relevant regulation or standard is not inconsistent with pipeline safety, the Associate Administrator may grant the application, in whole or in part, on a temporary or permanent basis. Conditions may be imposed on the grant if the Associate

Administrator concludes they are necessary to assure safety, environmental protection, or are otherwise in the public interest. If the Associate Administrator determines that the application does not comply with the requirements of this section or that a waiver is not justified, the application will be denied. Whenever the Associate Administrator grants or denies an application, notice of the decision will be provided to the applicant. PHMSA will post all special permits on its Web site at http://www.phmsa.dot.gov/.

(e) Can a special permit be requested on an emergency basis? Yes. PHMSA may grant an application for an emergency special permit without notice and comment or hearing if the Associate Administrator determines that such action is in the public interest, is not inconsistent with pipeline safety, and is necessary to address an actual or impending emergency involving pipeline transportation. For purposes of this section, an emergency event may be local, regional, or national in scope and includes significant fuel supply disruptions and natural or manmade disasters such as hurricanes, floods, earthquakes, terrorist acts, biological outbreaks, releases of dangerous radiological, chemical, or biological materials, war-related activities, or other similar events. PHMSA will determine on a case-by-case basis what duration is necessary to address the emergency. However, as required by statute, no emergency special permit may be issued for a period of more than 60 days. Each emergency special permit will automatically expire on the date specified in the permit. Emergency special permits may be renewed upon application to PHMSA only after notice and opportunity for a hearing on the renewal.

(f) How do I apply for an emergency special permit? Applications for emergency special permits may be submitted to PHMSA using any of the following methods:

(1) Direct fax to the Crisis Management Center at: 202-366-3768;

(2) Direct e-mail to PHMSA at: phmsa.pipeline-emergencyspecpermit@dot.gov; or

(3) Express mail/overnight courier to the Associate Administrator for Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue, SE., East Building, Washington, DC 20590.

(g) What must be contained in an application for an emergency special permit? In addition to the information required under paragraph (c) of this section, applications for emergency special permits must include:

(1) An explanation of the actual or impending emergency and how the applicant is affected;

(2) A citation of the regulations that are implicated and the specific reasons the permit is necessary to address the emergency (e.g., lack of accessibility, damaged equipment, insufficient manpower);

(3) A statement indicating how operating the pipeline pursuant to an emergency special permit is in the public interest (e.g., continuity of service, service restoration);

(4) A description of any proposed alternatives to compliance with the regulation (e.g., additional inspections and tests, shortened reassessment intervals); and

(5) A description of any measures to be taken after the emergency situation or permit expires--whichever comes first--to confirm long-term operational reliability of the pipeline facility.

Note to paragraph (g): If PHMSA determines that handling of the application on an emergency basis is not warranted, PHMSA will notify the applicant and process the application under normal special permit procedures of this section.

(h) In what circumstances will PHMSA revoke, suspend, or modify a special permit?

(1) PHMSA may revoke, suspend, or modify a special permit on a finding that:

(i) Intervening changes in Federal law mandate revocation, suspension, or modification of the special permit;

(ii) Based on a material change in conditions or circumstances, continued adherence to the terms of the special permit would be inconsistent with safety;

(iii) The application contained inaccurate or incomplete information, and the special permit would not have been granted had the application been accurate and complete;

(iv) The application contained deliberately inaccurate or incomplete information; or

(v) The holder has failed to comply with any material term or condition of the special permit.

(2) Except as provided in paragraph (h)(3) of this section, before a special permit is modified, suspended or revoked, PHMSA will notify the holder in writing of the proposed action and the reasons for it, and provide an opportunity to show cause why the proposed action should not be taken.

(i) The holder may file a written response that shows cause why the proposed action should not be taken within 30 days of receipt of notice of the proposed action.

(ii) After considering the holder's written response, or after 30 days have passed without response since receipt of the notice, PHMSA will notify the holder in writing of the final decision with a brief statement of reasons.

(3) If necessary to avoid a risk of significant harm to persons, property, or the environment, PHMSA may in the notification declare the proposed action immediately effective.

(4) Unless otherwise specified, the terms and conditions of a corrective action order, compliance order, or other order applicable to a pipeline facility covered by a special permit will take precedence over the terms of the special permit.

(5) A special permit holder may seek reconsideration of a decision under paragraph (h) of this section as provided in paragraph (i) of this section.

(i) Can a denial of a request for a special permit or a revocation of an existing special permit be appealed? Reconsideration of the denial of an application for a special permit or a revocation of an existing special permit may be sought by petition to the Associate Administrator. Petitions for reconsideration must be received by PHMSA within 20 calendar days of the notice of the grant or denial and must contain a brief statement of the issue and an explanation of why the petitioner believes that the decision being appealed is not in the public interest. The Associate Administrator may grant or deny, in whole or in part, any petition for reconsideration without further proceedings. The Associate Administrator's decision is the final administrative action.

(j) Are documents related to an application for a special permit available for public inspection? Documents related to an application, including the application itself, are available for public inspection on regulations.gov or the Docket Operations Facility to the extent such documents do not include information exempt from public disclosure under 5 U.S.C. 552(b). Applicants may request confidential treatment under part 7 of this title.

[Amdt 190-13, 73 FR 16562, March 28, 2008; Amdt 193-14, 74 FR 2889, January 16, 2009]