BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Commission Investigation into the Need to Enhance the Safety of Natural Gas Distribution Systems	)))	Docket UG-120715

COMMENTS OF NORTHWEST NATURAL GAS

Introduction

Northwest Natural Gas (d.b.a. NW Natural), founded in 1859, provides safe, reliable and cost effective natural gas service to approximately 682,000 residential, commercial and industrial customers, including approximately 70,000 customers in the State of Washington. NW Natural has designed, constructed, owns and operates approximately 617 miles of transmission mains, 13,300 miles of distribution mains and 660,000 distribution service lines.

NW Natural appreciates the opportunity to submit comments in the above-referenced docket regarding the *Commission Investigation into the Need to Enhance the Safety of Natural Gas Distribution Systems*. NW Natural is committed to pipeline safety and to the implementation of enhanced pipeline safety programs that legitimately improve the company's already safe pipeline infrastructure. NWN has a long history of voluntarily implementing effective pipeline safety programs to improve the safety of the company's distribution system. Beginning in 1985, NW Natural implemented a Cast Iron (CI) Replacement Program to replace the company's cast iron infrastructure with new materials, generally medium density polyethylene mains and services. The CI Program was successfully completed in 2000. In 2001, NW Natural implemented a Bare Steel Replacement Program and Natural Forces Mitigation Program to mitigate additional potential threats to the company's pipeline infrastructure. The Bare Steel Replacement Program accelerated the company's replacement of cathodically unprotected bare steel mains and services from an estimated original completion date of 2041 to a targeted

completion date of 2021, a reduction of 20 years. In addition, the Natural Forces Mitigation Program provided for enhanced pipeline safety by the proactive identification, assessment, mitigation and periodic monitoring of threats to the company's piping infrastructure presented by geologic hazards such as landslides, washouts, river erosion, etc.

In recent years, the pipeline safety environment has changed significantly. In 2002, Congress passed the *Pipeline Safety Improvement Act of 2002,* which included a legislative mandate for transmission pipeline operators to implement Transmission Integrity Management Programs (TIMP) for those transmission pipelines located in high consequence areas (HCAs). The federal Department of Transportation (DOT), Office of Pipeline Safety (OPS) issued the final TIMP regulation in December 2003. The TIMP regulation imposed significant new regulatory requirements on operators on transmission pipeline systems.

In addition, in 2006 Congress passed the *Pipeline Inspection, Protection, Enforcement, and Safety (PIPES) Act of 2006* that included a mandate for the Pipeline and Hazardous Materials Safety Administration (PHMSA) to promulgate regulations requiring integrity management programs for distribution systems (Distribution Integrity Management Programs or DIMP). PHMSA issued the final DIMP regulation on December 4, 2009. The DIMP Rule requires operators of natural gas distribution pipelines to evaluate the safety performance of the entire distribution system and take appropriate actions where facilities or groups of facilities are not performing adequately. The DIMP rule requires an operator to have a written integrity management plan that contains the following elements;

(a) Knowledge
(b) Identify threats
(c) Evaluate and rank risk
(d) Identify and implement measures to address risk
(e) Measure performance, monitor results, and evaluate effectiveness
(f) Periodic Evaluation and Improvement
(g) Report Results

The requirement for operators to “Identify and implement measures to address risk”, step (d) above, mandates operators to take appropriate action(s) to reduce risks identified on their distribution systems. These actions may include a broad range of “Additional or Accelerated Actions” ranging from capital pipeline replacement programs to more frequent O&M activities such as leak surveys or pipeline patrolling.

Since 2001, NW Natural has had an annual tracking mechanism in Oregon that has allowed the company to include enhanced pipeline safety costs annually. The rate treatment mechanism has supported the company’s Enhanced Pipeline Safety Program by providing accelerated recovery of both capital and O&M expenditures that have directly benefitted pipeline safety. In 2009, NW Natural integrated the company’s Bare Steel Replacement Program, and the TIMP and DIMP Integrity Management Programs into a single, enhanced pipeline safety program in Oregon called the *“System Integrity Program”* (“SIP”). The SIP Program includes a rate treatment mechanism that allows a portion of prudently incurred costs associated with the Program to be added to rates annually at the same time as the company’s purchased gas adjustment (PGA) filing. Key elements of the company’s current SIP rate treatment mechanism include;

- A “Soft Cap” of annual capital expense each year
- An annual minimum threshold of capital expense that is excluded from the rate treatment mechanism
- A tracking of completed and approved project costs into rates during the purchased gas adjustment each November
- An annual cost tracker year from November 1- October 31
- An annual meeting with pipeline safety staff and other stakeholders to review completed and proposed projects, project updates and cost updates
- Other periodic update meetings with pipeline safety staff as needed
- Annual PUC audit of costs, prudence review and “true-up” of rates

The Company’s Enhanced Pipeline Safety Programs have provided substantial benefits toward achieving improvements in pipeline safety. Accomplishments and benefits of the Enhanced Pipeline Safety Programs include the following;

- Accelerated replacement of the company’s CI system (completed October, 2000)
- Accelerated replacement of the company’s bare steel system and remaining vintage plastic services (estimated completion in 2017)

- Consolidation of various pipeline safety programs under a single umbrella
- Reprioritization and reallocation of capital and work resources based on risk assessment, changing system threats, work load, project timing, and newly identified pipeline safety issues such as PHMSA Pipeline Safety Advisories or new threats identified by the company
- Management of the variability of required pipeline safety expenditures
- Facilitation of the company's proactive actions to improve pipeline safety
- Effective management of ratepayer impact through small annual rate adjustments
- Addressing company exposure to constantly evolving pipeline safety mandates

The pipeline safety environment is changing significantly. Over the past 20 years, pipeline safety performance metrics kept by the federal DOT have demonstrated a dramatic improvement. However, in 2010 and 2011 a number of high profile pipeline accidents occurred on hazardous liquid pipelines, natural gas transmission pipelines and natural gas distribution pipelines, resulting in a heightened focus on pipeline safety. During 2010 and 2011, Congress held numerous hearings related to pipeline safety. In April, 2011 federal DOT Secretary LaHood announced the *"Pipeline Safety Action Plan"* which included a call to action for pipeline operators to aggressively raise the bar on pipeline safety and accelerate the rehabilitation, repair and replacement programs for high-risk pipelines. In the April 18, 2011 Pipeline Safety Forum, Secretary LaHood also called for pipeline operators to focus on pipelines that are no longer fit for service, specifically the replacement of cast iron, bare steel and vintage plastic distribution systems.

In addition, in 2011 Congress passed *The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011* which was enacted on January 3, 2012. Congress mandated an increased emphasis on pipeline safety by providing directives to PHMSA to study and promulgate rules, as appropriate, on the following pipeline safety issues;

- Pipeline Excavation Damage Prevention
- Automatic and Remote Controlled Shut-off Valves
- Transmission Integrity Management
- Public Education and Awareness
- Management of Cast Iron Pipelines

- Accident and Incident Notification
- Extension of Pipeline Safety Regulations to include Unregulated Gathering Lines
- Expansion of Excess Flow Valves Beyond Single Family Residential Applications
- Maximum Allowable Operating Pressure for Gas Transmission Pipelines

Although it will take some time for PHMSA to complete the evaluation and rulemaking processes mandated by Congress, it is extremely likely that rulemaking will be promulgated on the majority of pipeline safety issues addressed by Congress. In addition, it is important to note that PHMSA is already in rulemaking on the following pipeline safety issues;

- Expansion of Transmission Integrity Management Programs Outside of HCAs (Advance Notice of Proposed Rulemaking-ANPRM)
- Pipeline Damage Prevention Programs (Notice of Proposed Rulemaking-NPRM)
- Expanding the Use of Excess Flow Valves in Gas Distribution Systems to Applications Other Than Single-Family Residences (ANPRM)

The requirements of the TIMP Rule, the DIMP Rule, other pipeline safety regulations in process and the legislative mandates contained in *The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011* provide substantial pipeline safety mandates to operators.

Regulators have an important role to play in further enhancing pipeline safety; ensuring that there are no regulatory dis-incentives for pipeline operators to do “the right thing” in their pipeline safety programs. Providing pipeline operators with reasonable and timely rate treatment that provides regulatory certainty for prudently incurred pipeline safety costs for capital replacement programs and enhanced O&M programs reduces these dis-incentives. Approximately 26 states have adopted rate treatment mechanisms that support the acceleration of pipeline replacement programs for those facilities that are no longer performing adequately or other enhanced pipeline safety programs.

Specific Responses to Questions:

I. Pipeline Replacement Programs

A. For each gas company, what are the types of pipe that are currently in service that need to be replaced to enhance the safety of the company's natural gas distribution system (e.g., pre-1986 polyethylene pipe, wrapped steel main, and wrapped steel services)? For each type of pipe identified, please provide the following information:

1. A description of the pipe;

Response:

NW Natural's system in Washington contains unprotected bare steel distribution main and services. The facilities were installed from 1925 to 1960. In addition, the distribution system contains a small number of vintage plastic services.

2. The nature and quantification of the safety risks associated with the pipe;

Response:

Since the bare steel facilities are not cathodically protected, they are susceptible to the threat of external corrosion and associated leakage. The vintage plastic services have been found to become brittle and more subject to failure.

3. The extent to which the pipe is deployed in the company's natural gas distribution system;

Response:

NW Natural's system in Washington contains approximately 3 miles of unprotected bare steel distribution main, two bare steel distribution services and five vintage plastic services.

4. The actions the company is currently taking to replace the pipe;

Response:

NW Natural is currently involved in the replacement of bare steel and vintage plastic in Washington.

5. The company's future plans to replace the pipe; and

Response:

NW Natural currently plans to replace all of the remaining bare steel and vintage plastic facilities in the State of Washington prior to the end of 2015.

6. An estimate of the cost and time required to replace the pipe.

Response:

NW Natural expects to spend approximately $3 to 4 million (excluding construction overhead costs) on bare steel pipe replacement in Washington prior to the end of 2015.

B. Please provide a detailed explanation of the impediments, if any, to replacing pipe that needs to be replaced to enhance the safety of each company's natural gas distribution system, including but not limited to the following:

1. Cost recovery;

Response:

NW Natural believes that significant improvements to overall pipeline safety may include the capital replacement of pipeline infrastructure that is no longer performing adequately, installation of additional improvements as will be defined through pending regulatory action, and through focused O&M activities that are focused on the highest risk and consequence issues. For example, the implementation of "Preventative and Mitigative Actions" identified under an operator's TIMP Program or "Additional and Accelerated" activities, such as more frequent leak surveys or a sewer cross-bore investigation program, identified under DIMP all contribute to improvements in pipeline safety. The appropriate and timely recovery of capital and O&M costs under rate treatment mechanisms that eliminate regulatory lag and provide regulatory certainty ensures that there are no dis-incentives for operators to accelerate their enhanced pipeline safety programs.

2. Shortage of personnel or equipment;

Response:

No significant impediment

3. Access, e.g., rights-of-way or government permitting issues.

Response:

On occasion, access issues such as environmental studies or permitting issues can delay the timing on pipeline safety projects.

C. Risk assessment criteria and methodology

1. Describe and summarize the risk assessment methodology used by the Company to evaluate pipeline infrastructure.

Response:

NW Natural assesses the risks to the company's pipeline infrastructure in accordance with the provisions specified in 49 CFR, Part 192, specifically Subpart O for transmission lines and Subpart P for distribution lines.

2. What are some of the key assumptions used in such methodology, which may change over time, and what process is used to update these?

Response:

Key requirements of the risk assessment methodologies, as mandated by Subparts O and P, include identification of threats associated with the piping infrastructure (e.g. corrosion, natural forces, excavation damage, other outside forces damage, material/weld or joint failure, equipment failure, incorrect operation, and other concerns that could threaten the integrity of the pipeline). NW Natural incorporates key pipeline facility performance data specified by regulation in determining risk, such as; incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, excavation damage experience and failure experience. Processes and procedures are in place to update databases as new or additional information becomes available.

3. What are some of the important criteria, such as high consequence areas (HCAs), and how are they used as criteria in development the priority schedule for pipe replacement schedules?

Response:

The pipeline safety regulations for TIMP and DIMP (Subparts O & P, respectively) define important criteria for the development of pipeline risk evaluation. For example, Subpart O defines high consequence areas and the requirements for periodically updating them. The regulations require operators to perform a risk analysis where risk is defined as probability times consequences (Risk = Probability x Consequences). Therefore, locations such as HCAs, densely populated class locations, business districts and other “places of public assembly” are key considerations for scheduling pipeline replacement schedules or other actions to reduce risk.

4. How often do you update the risk assessment methodology?

Response:

The risk assessment (not methodology) is updated when significant new or additional information becomes available, at least once per year. However, a single piece of new information (e.g. a single valve failure) could provide sufficient justification for an immediate replacement project or other Additional or Accelerated Actions.

II. Interim Cost Recovery Mechanism

A. Would allowing the company to recover its pipeline replacement costs sooner than those costs are recoverable through traditional ratemaking principles provide a financial incentive to expedite such replacement? If so, please describe in detail how an interim cost recovery mechanism would result in accelerated pipeline replacement.

Response:

Yes. NW Natural believes that allowing operators to recover pipeline replacement costs, and/or other prudently incurred pipeline integrity management costs (capital or O&M) through an accelerated rate treatment mechanism would facilitate operator actions to replace pipeline facilities or otherwise enhance pipeline safety. The company suggests that timely rate treatment, elimination of regulatory lag and advance agreement on program scope and expenditures would provide regulatory certainty and eliminate potential dis-incentives for operators to implement aggressive actions to improve pipeline safety. NW Natural recommends a tracking mechanism where capital, and potentially O&M costs are included in rates each year at the same time as the annual PGA adjustment (see response to C.6. below). This also mitigates the impact of large rate payer increases, replacing it with small periodic rate adjustments.

B. If an expedited cost recovery mechanism is proposed, should it replace the Commission's conventional regulatory cost recovery structure for all pipeline replacement projects, or should it be limited to certain circumstances? Examples of such circumstances include, but are not limited to, discretionary projects, capital spending in excess of a pre-determined amount, and special projects.

Response:

The Company believes that limiting the application of the cost recovery mechanism to programs specific to pipeline safety that ensure or increase public safety may be appropriate. NW Natural's focus would be on completion of the bare steel and vintage plastic replacement programs. As noted previously, a mechanism with similar characteristics as the existing Oregon SIP would allow for proper prioritization of projects in both states and effective administration and reporting.

C. What is an appropriate interim cost recovery mechanism, and how should it be structured? Please describe in detail how each of the following interim cost recovery alternatives could be implemented in a manner that would provide a financial incentive to accelerate pipeline replacement and would result in a rate that is fair, just, reasonable, and sufficient:

1. A deferred accounting mechanism, such as, but not limited to, one comparable to the mechanism authorized in RCW 80.80.060(6);

Response:

See # 6 below

2. A ratepayer surcharge/expense mechanism to be used exclusively for pipeline replacements;

Response:

See # 6 below

3. Some combination of 1 and 2 above;

Response:

See # 6 below

4. An attrition adjustment mechanism;

Response:

See # 6 below

5. Pilot program or permanent mechanism (if a pilot program is approved, how long would it need to be in effect to accomplish the priority pipe replacements identified in response to question I.A.?); or

Response:

See # 6 below

6. Other.

Response:

NW Natural recommends an annual tracking mechanism for enhanced pipeline integrity costs, including capital, and potentially O&M costs, similar to the mechanism that has supported the company's Enhanced Pipeline Safety Programs in Oregon since 2001. Key elements of the current rate treatment mechanism include;

- Scope includes accelerated bare steel replacement and DIMP and TIMP integrity management programs

- Minimum threshold / fiscal year before bare steel/leakage capital costs are included for rate treatment
- "Soft cap" for capital cost recovery per fiscal year
- Completed project costs included in rates with PGA adjustment each November
- "Tracker year" from November 1- October 31 each year
- Annual meeting with PL safety staff and other stakeholders to review proposed projects and provide updates on projects and costs
- Annual PUC audit of program costs, prudence review and "true-up" of rates

D. Process

1. What should the role of the Commission's pipeline safety staff be at stages in this process, including risk assessment methodology review, review of priority replacement, and budget review?

Response:

NW Natural recommends a transparent process for the Enhanced Pipeline Safety Program and associated rate treatment mechanism. As noted above, we propose at least one meeting annually with the Commission's pipeline safety staff, rates staff and other interested stakeholders to provide an update on the Program, including project status, updated priorities, expenditure update, and projected Program budget moving forward. A key objective of the meeting would be to solicit input and feedback from staff regarding Program priorities, objectives and actions (e.g. replacement, or other actions such as "Preventative and Mitigative Measures" implemented to reduce risk under TIMP or "Additional and Accelerated Actions" as risk reduction actions under DIMP). As previously noted, NW Natural recommends that the Enhanced Pipeline Safety Program should be much broader than just pipeline infrastructure replacement projects.

2. Does the Company envision any issues about the use or sharing of confidential information? What procedures should the Commission impose to protect any confidential information?

Response:

Some of the information provided to staff could potentially be considered confidential, safety sensitive information. NW Natural would be happy to work

with staff to identify appropriate processes and procedures to protect the confidentiality of critical information.

3. Depending on the type of mechanism, must the filing be synchronized with other filing dates, such as the PGA (purchased gas adjustment)?

   Response:

   NW Natural recommends that the annual rate adjustment associated with the Enhanced Pipeline Safety Program be synchronized with the annual PGA adjustment in order to minimize confusion for ratepayers.

4. If the proposal is to include an annual budget for priority pipe replacement, when should it be submitted? How much time should Commission staff be given to review the plan and budget?

   Response:

   NW Natural can meet with staff at any mutually agreeable time to review and update staff on key elements of the Program. Rather than a one-time event, the company envisions an ongoing dialog and exchange of information between NW Natural and pipeline safety staff.

5. If the mechanism calls for an annual plan or budget and for Commission review of such plan or budget, by what process should the Commission undertake those functions? Would an open meeting process suffice, or should the process be more formal?

   Response:

   As noted above, NW Natural recommends at least one meeting annually that includes company personnel, pipeline safety staff, rates staff and other interested stakeholders to review and update the Program. The company suggests that the process need not be formal.

Conclusion

NW Natural appreciates the opportunity to submit comments in response to the *Commission Investigation into the Need to Enhance the Safety of Natural Gas Distribution Systems.* As operators continue implementation of TIMP Programs and DIMP Programs, and based on legislative mandates contained in the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, DOT Secretary LaHood's "Call to

Action", new pipeline safety regulations and PHMSA Advisories regarding pipeline materials that are no longer performing adequately, we believe that there is significant opportunity to enhance the safety of transmission and distribution systems. The company believes that natural gas operators are committed to enhancing the safety of their pipeline systems and that the stipulation of annual tracking mechanisms that provide for timely recovery of costs associated with enhanced pipeline safety programs facilitates operator actions to improve the safety of their systems. NW Natural looks forward to further discussions on this subject at the Stakeholder Workshops scheduled for June 21, 2012 and July 2, 2012.

Respectively submitted,

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