BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

IN RE:

PETITION OF ATMOS ENERGY	**)**	
CORPORATION FOR A WAIVER	**)**	
TO PERMIT THE LIMITED USE OF	**)**	
POLYETHYLENE PIPING	**)**	**DOCKET NO. 07-00251**

EARNEST B. NAPIER, P.E.

I. INTRODUCTION OF WITNESS

Q. Please state your name and business address.

A. My name is Earnest B. Napier. My business address is 810 Crescent Centre Drive, Suite 600, Franklin, TN 37067-6226.

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

A. I am employed by Atmos Energy Corporation ("Atmos" or "Company") as Vice President of Technical Services for the KY/Mid-States Division.

Q. Please describe your educational background and professional experience.

A. I received a Bachelor of Science degree in Civil Engineering from The University of Tennessee in 1982. I am a Registered Profession Engineer in the states of Tennessee, Missouri, and Kansas. I have been employed in the utility industry since 1977, predominantly in the natural gas distribution field. I have been employed by Atmos Energy Corporation for over twenty five (25) years.

During my time at Atmos I have held several different positions. I began as a Project Engineer and have been the Manager – Engineering Design, Division Vice President-Engineering and Manager-Engineering Services. I was named Vice President of Technical Services for the KY/Mid-State Division in July of 2007.

Q. What are your responsibilities as the Vice President of Technical Services?

A. I have overall responsibility for decision-making related to technical operations. That includes engineering and system design, safety, compliance, procurement, environmental, measurement, communications, technological infrastructure, and storage operations. I also sponsor Atmos' safety committee and am a member of Atmos' Utility Operations Council, which sets the Company's standard practices and procedures for construction, maintenance, and service. In addition, I am responsible for developing the Division's annual capital budget and monitoring capital budgetary compliance. In this regard, it is my role to ensure that the Company's investment in new plant is targeted towards meeting the important goals of public safety, system reliability and efficiency.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's request for a waiver in order to permit the limited use of polyethylene piping together with a .40 design factor.

II. OVERVIEW

Q. For what purpose is the Company requesting a waiver?

A. Atmos requests that the Tennessee Regulatory Authority ("Authority") grant a waiver to allow the use of a 0.40 design factor used in determining the maximum design pressure subject to the revised limitations within CFR 149 Part 192.193.

Q. Why is it necessary to approve the waiver proposed by the Company?

A. Increasing demands on the natural gas distribution systems require the Company to explore ways in which to safely optimize the operation of natural gas facilities. It is important that Atmos utilize the industry's best practices to safely and reliably

maximize distribution operating efficiencies.

III. POLYETHYLENE PIPE

Q. What is polyethylene ("PE")?

A. Polyethylene ("PE") is a plastic polymer material used in the fabrication of piping.

Q. What are the benefits of utilizing PE piping materials?

A. Over the past few decades, there have been significant improvements in the performance characteristics of PE materials. PE piping material exhibits reduced friction, superior flow characteristics, extended life and durability and reduced maintenance in comparison to traditional piping materials

Q. Have there been any recent regulatory changes with respect to the use of PE materials?

A. Yes. Based on the positive in-service field experience under previous waiver(s) in various parts of the country, Title 49 CFR Part 192 requirements have been recently amended and now permit the use of modern PE materials at design pressures up to 125 psig for gas distribution applications. These federal safety standards have been adopted by the Tennessee Regulatory Authority. See Tenn. Code Ann. § 65-28-104, et seq. Under the provisions of applicable law, including 49 U.S.C. § 60118, and 49 C.F.R. §§ 192.121 and 192.123(a), the Authority may waive compliance with any part of an applicable standard on terms it considers appropriate if the waiver is not inconsistent with pipeline safety. See In re: Application of Nashville Gas Company, Inc. for a Waiver of Sections 192.121 and 192.123(a) of Part 192 of U.S.C. Title 49, Docket No. 01-01133 (June 17, 2002). Pursuant to these provisions, Atmos respectfully requests that the Authority grant a waiver from Title 49 Code of Federal Regulations Part 192, Sections 192.121 (Design of Plastic Pipe), and 192.123 (Limitations for Plastic Pipe) to allow the use of a 0.40 design factor used in determining the maximum design pressure subject to the revised limitation(s) within §192.123 up to a maximum design pressure no greater than 125 psig as currently permitted under Part 192.

IV. DESIGN FACTOR

Q. What is a design factor?

A. The design factor is part of the formula contained in Section 192.121. It is used to account for slight variations in material and manufacturing quality, as well as to compensate for other stresses in the pipe, which are unrelated to internal pressure such as earth loading, subsidence, compression fittings, and temperature changes.

Q. What is the effect of changing the design factor?

A. A Joint Industry IDF Committee was established in order to ensure objective review of technical data. The results of comprehensive testing and evaluation conducted under the supervision of the committee at test pressures two times greater than the maximum operating pressures using a 0.40 design factor have shown that pipe, fittings, and joints will perform safely over their intended design life.

Q. Have you read the report release by the Joint Industry IDF Committee in July of 2007?

A. Yes. A copy of that report has been filed in this docket. I agree with the conclusions and recommendations contained therein.

Q. If granted a waiver, how would Atmos implement the use of PE piping and a new design factor?

A. Atmos would design, construct, maintain, and operate the PE systems in accordance with Atmos Energy's approved construction standards. Atmos proposes to install no more than 5 miles of PE pipe on a trial basis in various class locations. The Company would utilize PE2708, PE3710, and PE4710, which have higher performance characteristics and meet the requirements of ASTM D3350-05 and are listed in the Plastic Pipe Institute's ("PPI") Technical Report PPI TR-4/2007.

Atmos would incorporate additional limitations within Section 192.123 for plastic piping systems in order to effectively bound the design criteria and ensure safe long-term performance in conjunction with the use of a 0.40 design factor. At present, 192.123 permits that use of any pipe size and wall thickness at the operating pressures determined using the design formula contained within 192.121 provided that the minimum wall thickness is greater than 0.063". In order to provide additional assurances of safe operations, Atmos proposes to increase the minimum wall thickness requirements under §192.123 (c) to 0.090". Furthermore, the Atmos proposes to amend §192.123 (c) by incorporating a table with minimum wall thickness values for distribution piping sizes up to 125 psig operating pressures as determined by the use of the design formula contained within §192.121 using a 0.40 design factor.

Nominal Pipe Size	Minimum Wall Thickness	Corresponding SDR Values
2-inch	0.216 in.	11
3-inch	0.259 in.	13.5
4-inch	0.264 in.	17
6-inch	0.390 in.	17
8-inch	0.410 in.	21
10-inch	0.511 in.	21
12-inch	0. 608 in.	21

Atmos proposes to limit the maximum operating pressure for pipe sizes 8-inch through 12-inch SDR 21 to less than or equal to 30 psig.

Q. How does Atmos plan to monitor any PE pipe installed pursuant to a waiver?

A. The following records will be maintained to monitor the performance of the installed gas pipelines systems subject to Part 192.613 and 192.617 requirements including: type of material, location, length, pressure, pipe size, wall thickness, and class location.

Q. How would a rule change by the Pipeline and Hazardous Materials Safety Administration ("PHMSA") affect the proposed waiver?

A. Atmos requests that the Authority permit the continued satisfactory operations of these systems at the installed pressures until such time, if any, that PHMSA adopts an increased design factor. Upon the effective date of PHMSA regulation to increase design factor, this waiver will be superseded by the provisions within the final rule.

V. CONCLUSION

Q. What do you have to say in conclusion?

A. The proposed changes set forth in the Company's application will assure that regulations are kept current with advancement in pipe performance characteristics, test methodologies, and process control improvements without sacrificing the safety or integrity of the Company's gas distribution system.

Q. Does this conclude your pre-filed testimony?

A. Yes it does.