

U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

March 31, 2005

Mr. David McMillan  
Chief, Bureau of Pipeline Safety  
Division of Reliability and Security  
State of New Jersey Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07102

Dear Mr. McMillan:

Thank you for your letter dated February 23, 2005, concerning our request for additional information. We requested additional information to consider the waiver request from 49 CFR Part 192.59(a)(1) you granted to the Public Service Electric and Gas Company (PSE&G) on November 22, 2004.

Section 192.59(a)(1), Plastic pipe, stipulates that new plastic pipe is qualified for use under this part if it is manufactured in accordance with a listed specification. PSE&G requested a waiver from the regulatory requirements of § 192.59(a)(1) to install Cross-Linked Polyethylene plastic pipe, commonly referred to as PEX, for testing purposes in various locations within its natural gas distribution pipeline system.

The waiver granted by the New Jersey Board of Public Utilities (Board) allows PSE&G to install PEX plastic pipe in select environments within its natural gas distribution pipeline system. Specifically, the Board's Order permits PSE&G to:

- A. Select test environments that would benefit from the improved properties of PEX plastic pipe. Test environments include, but are not limited to, bridge crossings where the pipe will be encased and protected from mechanical damage and ultraviolet radiation;
- B. Field test PEX plastic piping for a duration of five years;
- C. Remove a portion of the PEX plastic pipe for evaluation at the end of the five year testing period and make the results of the evaluation available to the Board;
- D. Continue to monitor the condition of the PEX plastic pipe for at least an additional six months following the five year testing period;
- E. Monitor the PEX plastic pipe at least once every three years following the five year testing period. PSE&G will immediately notify the Board if pipe damage or pipe degradation is discovered; and
- F. Submit all projects proposed under this waiver to the Board's Bureau Pipeline Safety Staff for review and approval prior to installation.

We concur with the conclusion of the Board and find that the waiver is consistent with recently adopted changes in the pipeline safety regulations; therefore, we have no objection to the waiver.

Sincerely,  
Theodore L. Willke  
Deputy Associate Administrator for Pipeline Safety

State of New Jersey  
Board of Public Center  
Two Gateway Center  
Newark, NJ 07102

February 23, 2005

Stacey L. Gerard  
Associate Administrator  
Office of Pipeline Safety  
Research and Special Programs Administration  
400 Seventh St., S.W.  
Washington, D.C. 20590

Dear Ms. Gerard:

I am writing in response to your letter of February 2, 2005 concerning the request for additional information required to assist your office in considering the waiver request from Public Service Electric and Gas Company (PSE&G) to install PEX pipe for testing purposes. The following are your specific questions and the responses:

1. The cover letter states that the Board approved PSE&G's request for waiver from 49 CFR 192.59(a), however, the Order states that Board approved PSE&G's request for waiver from 49 CFR 192.59(a)(1). Please clearly state whether the waive is requested and approved for 49 CFR 192.59(a) in its entirety or 49 CFR 192.59(a)(1).

A: The waiver is requested for CFR 192.59(a)(1).

2. The Order states, "This installation would serve as a field test to evaluate the effectiveness of the pipe for future use in the company's gas distribution system." Please specify the duration of the "field test" period and what actions/communications will take place between the Board and PSE&G after the "field test" period is concluded, (i.e., removal of PEX piping, request for permanent waiver, etc.)

A: The duration of the field test is five years. After the field test a portion of the PEX plastic pipe would be removed for evaluation and the Board will be informed as to the results of the evaluation.

3. It is not clear whether PSE&G has or intends to submit this pipe material to the American Society for Testing and Materials (ASTM) for testing and approval.

Please state whether or not PSE&G has or intends to submit this pipe material to ASTM for testing and approval. If affirmative, please provide dates.

A: As to ASTM, PEX piping is listed in the ASTM D2513-04a (the latest version) under Annex A7, Crosslinked Polyethylene (PEX) Pipe, pages 19 and 20.

If you have any further questions, please contact me at (973) 648-2204.

Sincerely,  
David McMillan  
Chief, Bureau of Pipeline Safety

State of New Jersey  
Board of Public Center  
Two Gateway Center  
Newark, NJ 07102

November 22, 2004

Stacy L. Gerard  
Associate Administrator for Pipeline Safety (DPS-1)  
Research and Special Projects Administration  
Department of Transportation  
400 Seventh Street, S.W.  
Washington, D.C. 20590

Re: Waiver of Pipeline Safety Regulations

Dear Mrs. Gerard:

On November 25, 2003, Public Service Electric and Gas Company (PSE&G) filed a petition with the New Jersey Board of Public Utilities requesting a waiver of CFR § 192.59(a), which prohibits the installation of above ground plastic pipe for distribution of natural gas. PSE&G is requesting a waiver of this regulation, which states "new plastic pipe is qualified for use in natural gas pipelines if it is manufactured with a listed specification" so that it may use Cross-Linked Polyethylene pipe, commonly referred to as PEX piping for certain installations. These installations would serve as a field test to evaluate the effectiveness of the pipeline for future use in the company's natural gas distribution system.

After careful consideration of the company's petition and the review of research findings for this pipe material, the Board at its scheduled agenda meeting on November 9, 2004 approved the company's petition. The waiver will allow PSE&G to install Cross-Linked Polyethylene pipe aboveground over bridge crossings, where the casing is subject to direct sunlight, joint trench projects with natural material fill, pipe bursting, plowing without casing, directional drilling, and insertion into abandoned pipes. The company's plans, subject to the review and approval of pipeline safety staff, to install this piping under the conditions stated above.

As required by section 60118(d) of the Natural Gas Act, I am forwarding to you a copy of the Board's Order regarding the waiver with understanding that the waiver will be effective within 60 days of notification unless the Secretary of Transportation, through your office, objects to the waiver in writing before the effective date. Thank you for your support in this matter.

Very truly yours,  
David McMillan, Chief  
Bureau of Pipeline Safety  
Division of Reliability and Security

State of New Jersey  
Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07102

RELIABILITY & SECURITY

IN THE MATTER OF PUBLIC SERVICE ELECTRIC )  
AND GAS COMPANY'S PETITION FOR A WAIVER OF ) DECISION AND ORDER  
49 CFR §192.59(A)(1) PURSUANT TO 49 U.S.C. )  
60118 (D) OF THE PIPELINE SAFETY ACT ) DOCKET NO. GE03110956

(SERVICE LIST ATTACHED)

BY THE BOARD:

By letter dated November 25, 2003, Public Service Electric and Gas Company (PSE&G) petitioned for a waiver of 49 C.F.R. § 192.59(a)(1). PSE&G requested a waiver of this regulation, which limits the use of plastic pipe to only that which has been explicitly qualified for use in natural gas pipelines and which has been manufactured with a listed specification. This was intended so that PSE&G might use Cross-Linked Polyethylene pipe, commonly referred to as PEX piping, for gas service under bridge crossing in various locations. Despite the fact that PEX pipe has not yet been federally approved under § 192.59(a)(1). This installation would serve as a field test to evaluate the effectiveness of the pipe for future use in the company's gas distribution system. PEX pipe has not previously been used in the United States for natural gas pipeline applications. On May 12, 2004, in Docket No. GE03110956, this Board granted the waiver, and imposed a number of restrictions and conditions upon the waiver to ensure continued safe operation while allowing PSE&G to test the PEX piping under appropriate circumstances. PSE&G now seeks modification of those restrictions in order to allow for continued testing of PEX pipe, most notably in terms of ultraviolet radiation exposure, which cannot be performed under the current Board waiver.

As noted in the Board's previous Order on this matter, the engineering data provided by PSE&G and the Gas Technology Institute in Chicago indicates that PEX piping is: (1) superior in quality to standard polyethylene pipe, specifically in regard to its resistance to temperature changes and overall lifespan and (2) has been used quite extensively in the European gas pipeline industry, with over 1,375 miles of gas main and services currently in place.

While the Board is authorized pursuant to 49 U.S.C. § 60118(d) to grant this waiver, concurrence from the federal Office of Pipeline Safety (OPS) is required before the waiver becomes effective. OPS is required by statute to respond within 60 days of the date of Board action if it takes exception to the waiver. The waiver would go into effect if no reply is received within 60-day time limit pursuant to 49 U.S.C. § 60018(d).

After review of the petition and the pertinent papers filed in this matter, as well as the previous Board Order, the Board HEREBY FINDS that the a modification of the conditions and restrictions imposed upon PSE&G in its test use of PEX piping for gas service will serve to increase the value of the test and will not increase the risk to the utility customers or to the general public. Accordingly, the Board HEREBY ORDERS that the conditions previously imposed upon PSE&G in terms of its request for a waiver of the requirement of 49 C.F.R. § 192.59(a)(1) shall be modified in the following manner:

- A) PSE&G may select test environments that would benefit from the improved properties of PEX plastic piping such as in bridge crossings where the casing is subject to direct sunlight, joint trench projects with natural material fill, pipe bursting /plowing without casing, directional drilling, and, insertion into abandoned pipes, and need not specifically protect the PEX piping from ultraviolet radiation;
- B) During the first five years after installation, the PEX plastic piping will be monitored on a periodic basis of at least six months. Thereafter, the PEX plastic piping will be monitored no less than every three years. In the event of any evidence of degradation or other damage, PSE&G will immediately notify the

Board;

- C) A portion of the PEX plastic pipe will be removed for evaluation after the testing period, and the results of this evaluation, as well as the ongoing evaluation noted above, shall be submitted to the Board; and,
- D) Review and approval of any and all projects proposed under this waiver shall be performed by the New Jersey Board of Public Utilities — Bureau Pipeline Safety Staff prior to installation.

DATED: 11/10/04

Board of Public Utilities By:

Jeanne M. Fox, President

Frederick Butler, Commissioner

Connie O. Hughes, Commissioner

Jack Alter, Commissioner

ATTEST:

Kristi Izzo, Secretary

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities

IN THE MATTER OF PUBLIC SERVICE AND ELECTRIC AND GAS COMPANY'S  
PETITION FOR A WAIVER OF 49 CFR § 192.59(a) (1) PURSUANT TO  
49 U.S.C. 60118 (D) OF THE PIPELINE SAFETY ACT

DOCKET NO. GE03110956

**SERVICE LIST**

Tamara Linde General Solicitor  
Public Service Electric & Gas Company  
80 Park Plaza Mail Code: T5E Newark, NJ 07102

David McMillan  
Division of Reliability and Security Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07102

Kenneth Sheehan, DAG  
Department of Law & Public Safety Division of Law  
124 Halsey Street, 5<sup>th</sup> Floor  
PO Box 45029  
Newark, NJ 07102