

U.S. Department of Transportation  
Research and Special Programs Administration  
400 Seventh St., S.W.  
Washington, D.C. 20590

OCT 22 2003

Mr. Dave McMillan  
Chief, Bureau of Pipeline Safety  
State of New Jersey  
Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07102

Dear Mr. McMillan:

We have considered your letter of August 13, 2003, notifying us that the New Jersey Board of Public Utilities has granted the Public Service Electric and Gas Company (PSE&G) a waiver from complying with 49 CFR 192.321(a) for plastic pipe on bridges. The waiver will permit the installation of plastic pipe aboveground inside steel pipe on bridges. The installations will be protected against mechanical damage and ultraviolet radiation, and will meet all applicable plastic pipe safety requirements other than 49 CFR 192.321(a).

We have no objection to the waiver. The circumstances are comparable to those of previous waivers we have approved permitting the installation of plastic pipe aboveground on bridges.

Sincerely,

Stacey L. Gerard  
Associate Administrator for Pipeline Safety

STATE OF NEW JERSEY  
Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07102

August 13, 2003

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

RE: Waiver of Pipeline Safety Regulation

Dear Mrs. Gerard:

On September 6, 2002, Public Service Electric and Gas Company (PSE&G) filed a petition with the New Jersey Board of Public Utilities requesting a waiver of CFR 192.321(a), which prohibits the installation of aboveground plastic pipe for distribution of natural gas. After careful consideration of the company's petition and the review of similar requests and research for this matter, the Board, at its agenda meeting on August 6, 2003, approved the company's petition. The waiver will allow PSE&G to install plastic pipe aboveground over bridges provided the plastic pipe is properly protected from external forces, ultraviolet light and high and low temperatures. The company will install the plastic pipe through steel casing.

As required by section 60118(d) of the Natural Gas Act, I am forwarding a copy of the waiver to your office with the understanding that the waiver will be effective within 60 days of notification unless the Secretary 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 THE PETITION BY	)	
PUBLIC SERVICE ELECTRIC AND GAS COMPANY	)	Decision and Order
FOR A WAIVER FROM CODE OF FEDERAL	)	
REGULATIONS TITLE 49, SECTION 192.321(a)	)	Docket No. GE02090650

(SERVICE LIST ATTACHED)

BY THE BOARD:

By letter dated August 30, 2002, Public Service Electric and Gas Company (PSE&G) petitioned for a waiver from compliance with the requirement of CFR 49, Section 192.321(a) that plastic pipe must be installed underground. Specifically, PSE&G requests that it be permitted to install plastic carrier pipe across bridges by insertion into steel casing pipes.

Section 192.321 of the federal pipeline safety regulations states that Plastic pipe must be installed below ground." However, in June of 1996, the federal code was amended to allow temporary (up to 2 years) above ground installations provided the plastic is protected from damage by external forces, ultraviolet light and high and low temperatures.

The use of approved Polyethylene (plastic) pipe for the installation of natural gas distribution systems has proven to be a safe and economical alternative to steel. The vast majority of new and replacement gas distribution systems (some 80-90%) are installed using plastic pipe. Plastic pipe, however, is subject to degradation due to ultraviolet light energy and high and low temperatures. For this reason, the federal pipeline safety code prohibits the installation of plastic pipe aboveground. Whenever a natural gas operator proposes to permanently install plastic pipe aboveground, it must be installed within a casing, or steel pipe, and a waiver must first be obtained from the appropriate State agency.

Concurrence from the federal Office of Pipeline Safety (OPS) is required before the waiver becomes effective. OPS has granted such waivers to permit the insertion of plastic pipe through casings installed across bridges on numerous occasions. Research conducted by a committee of The American Society of Mechanical Engineering in 1993 demonstrated that these installations were "completely satisfactory" in their performance.

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 the 60-day time limit.

The Board HEREBY ORDERS that PSE&G's request for a waiver of the requirement of CFR 49, Section 192.321(a) be approved subject to the following conditions:

- (a) The plastic pipe is installed in such a manner that it is protected from mechanical damage, such as by installation in a metallic casing;
- (b) The plastic pipe is installed so that it is protected from high and low temperatures; and
- (c) The plastic pipe is protected from ultraviolet radiation.

DATED: 8/7/03

BOARD OF PUBLIC UTILITIES  
BY:

JEANNE M. FOX  
PRESIDENT

FREDERICK F. BUTLER  
COMMISSIONER

CAROL J. MURPHY  
COMMISSIONER

CONNIE O. HUGHES  
COMMISSIONER

JACK ALTER  
COMMISSIONER

ATTEST:  
KRISTI IZZO  
SECRETARY

Service List  
Docket No. 0E02090650

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Newark, NJ 07102

General Solicitor        80 Park Plaza, T5G, Newark. NJ 07102-4194  
tel. 973.430.8058 fax: 973.430.5983

August 30, 2002

Kristi Izzo, Secretary  
Board of Public Utilities  
2 Gateway Center  
Newark, New Jersey 07102

SUBJECT:        PETITION for BLANK WAIVER from FEDERAL CODE  
                  49CFR192.321(a) PURSUANT to 60118(d) of the PIPELINE SAFETY ACT

Dear Secretary Izzo:

Public Service Electric and Gas Company ("PSE&G") is requesting a blanket waiver from the Board of Public Utilities pursuant to 60118(d) of the Federal Pipeline Safety Act to waive the requirements of Federal Code 49 CFR 192321(a) applicable to PSE&G's service territory in New Jersey.

PSE&G requests a blanket waiver to 49 CFR 192.321(a) to permit the installation of plastic ("PE") pipe across bridges subject to the following conditions:

- the PE pipe must be installed inside a casing to prevent physical damage and exposure to ultraviolet radiation;
- the PE must be installed such that it is not subject to excessive abrasion; and,
- the PE pipe must be restrained in a manner to prevent pullout due to thermal expansion and contraction.

The Office of Pipeline Safety ("OPS") has for at least nine years granted waivers from 49 CFR 192.321(a) to permit the installation of PE pipe above ground. The waivers have permitted the installation of PE pipe on bridges through casings. OPS has proposed amending 49 CFR 192.321(a) to allow the installation of encased PE pipe provided the PE pipe is protected from physical damage, ultraviolet radiation, and meets all the applicable stress limits for PE pipe under 49 CFR 192; however, the amendment has not been issued.

The American Society of Mechanical Engineers Gas Pipeline Safety Research Committee produced in 1993 an engineering study in support of a petition for a rule change of 49 CFR 192.321(a). This study is entitled "Installation of Plastic Gas Pipeline Across Bridges". It (in part) refers to the performance of a number of plastic pipes across bridges installed between 1979 and 1985. Data indicated these pipes were "completely satisfactory" in their performance. The conclusion reached in that study stated that since the first waiver was granted in 1979, thirty one years of cumulative experience has shown that the use of PE pipe installed across bridges is technically feasible, safe, and cost effective. A Gas Research Institute study entitled "Design Guide for Polyethylene Gas Pipes Across Bridges" published in August of 2002 provides detailed engineering data and design specification for the installation of PE pipe across bridges. This study has been included to support PSE&G's application for a waiver. Additionally, New York Department of Public Service Commission's blanket waiver approval provided to New York Gas Group and OPS concurrence permitting member companies to install PE pipe across bridges in New York State is provided in supporting our waiver request since New Jersey's operating climate is similar to New York State. The granting of numerous waivers by OPS, since 1990, to various gas companies allowing encased PE pipe across bridges, reinforces permitting the use of PE on bridges. As another example, in 1996, when San Diego Gas & Electric Company requested a waiver, the California Public Utilities Commission granted a blanket waiver to all utilities in the State to permit the installation of PE pipe across bridges, which was followed by a waiver from the OPS.

Enclosed are documents supporting the granting of a waiver. I trust the above information is sufficient to permit granting of the requested waiver. If you have any questions in this matter, please contact Willard S. Carey, Regulatory Leader — Federal, at 973.430.7833.

## Petition for Waiver Elements

### Petition information:

- (1) Public Service Electric & Gas Company  
80 Park Plaza, T-13  
Newark, New Jersey 07102  
973.430.7833  
Attention: Willard S. Carey
- (2) Waiver from Federal Code 49 CFR 192.321(a)
- (3) The waiver would permit plastic pipe to be installed above ground in casings on bridges. The plastic pipe installed above ground would be installed in a manner that would protect it from physical damage, ultraviolet radiation and meet all applicable limits for plastic pipe under Part 192 and manufactures specifications. The polyethylene ("plastic") pipe installed above ground would be subject to the following conditions:
  - Installed in a casing;
  - The plastic pipe would be installed in a manner that it is not subjected to abrasion from rubbing against the casing; and,
  - The plastic pipe would be restrained so that pullout would not occur from thermal expansion / contraction.
- (4) The existing regulation does not permit the installation of plastic piping above ground including on bridge structures. Plastic pipe installed subject to the above conditions provides completely satisfactory performance and is not affected by corrosion. If steel pipe is used it is subject to corrosion and requires a higher expense to maintain the pipe. Plastic pipe would provide a cost savings, meet or exceed existing safety requirements, and eliminate the possibility of corrosion leaks.
- (5) The public interest is served by allowing plastic pipe to be installed as described since maintenance and installation cost savings are shared with ratepayers, public safety is not compromised, and experience and testing has proved that plastic piping can perform satisfactorily in this environment. The public interest is also served by consistent application of regulations and waivers. OPS has granted waivers to 49 CFR192.321(a) numerous times in other states with similar environment conditions.
- (6) Testing and direct experience of more than 33 years of cumulative experience has indicated that plastic pipe is technically feasible, safe, and cost effective. In addition, OPS has granted at least seven waivers since 1990 to 1997. The waiver granted by the California Public Utilities Commission granted San Diego Gas & Electric Company a blanket waiver that allows all utilities in that State to install polyethylene pipe across bridges. New York State granted a blanket waiver to the New York Gas Group on December 8<sup>th</sup> 1997.