

PI-03-0105

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

June 11, 2003

Mr. Paul Metro  
Supervisor, Gas Safety Division  
Pennsylvania Public Utility Commission  
Bureau of Transportation and Safety  
400 North Street, 300 Barto  
Harrisburg, PA 17105-3265

Dear Mr. Metro:

This is in response to your request of January 29, 2002, for an interpretation of the gas pipeline safety regulations at 49 CFR 192.59(b)(3) related to the reuse of polyethylene pipe.

PPL Gas Utilities Corporation (PPL) intends to convert a polyethylene distribution system from propane vapor service to natural gas service, and has requested an interpretation. PPL's position is that:

. . . in accordance with § 192.11, Petroleum gas systems, the propane distribution system is already subject to Part 192. New polyethylene pipe was installed in 1988, and met the requirements of § 192.11, along with the requirements of § 192.50(a). Because the piping system is already qualified under § 192.59(a), the plastic pipe should not be considered "used" and subject to both § 192.59(a) and § 192.5(b).

PPL recognizes that liquid propane can have an effect on plastic pipe, including possible problems with fusibility. They also note that the system has been operated in accordance with 49 CFR Part 192, *"Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards,"* and ANSI/NFPA 58, *"Standard for the Storage and Handling of Liquefied Petroleum Gases,"* which limits the operating pressure of polyethylene piping carrying propane to 30 psig. The PPL system has been operating at a pressure of 10 psig, which would not result in deleterious condensation.

There is no question that the piping in question has been transporting propane vapor and that such service has been subject to 49 CFR Part 192. Therefore, the only question is whether use of this piping system for natural gas service is allowable under § 192.59(b)(3). This section allows the use of used plastic pipe for natural gas service if it was manufactured in accordance with a listed specification, if it is resistant to chemicals, if it is free of visible defects, if its dimensions are still within tolerances of the specification to which it was manufactured, and if it has been used only in natural gas service.

We do not consider changing the gas service from propane vapor to natural gas for pipe that has always been in compliance with 49 CFR Part 192 to constitute the use of "used plastic pipe" as contemplated in § 192.59(b)(3). Therefore, conversion of a jurisdictional polyethylene plastic distribution system from propane vapor service to natural gas service is acceptable.

If you have any further questions about the pipeline safety regulations, please contact me at (202) 366-4565.

Sincerely,  
Richard D. Huriaux, P.E.  
Manager, Regulations  
Office of Pipeline Safety

PPL Gas Utilities  
555 Camargo Road  
Quarryville, PA 17566-9210

October 11, 2001

Dear Mr. Finnan:

PPL Gas Utilities Corporation (PPL) operates gas pipelines in Pennsylvania, and is subject to pipeline safety regulations as outlined in Pennsylvania Title 52, Chapter 59, which incorporates the federal regulations implemented in 49 CFR Part 191, 192, 193, and 199. PPL desires to convert a polyethylene distribution system from propane vapor service to natural gas service, and respectively requests an interpretation of 49 CFR 192.59 *Plastic pipe*.

The Pennsylvania Public Utilities Commission expressed concern that conversion of a plastic distribution system from propane vapor to natural gas service would not meet the requirements of 192.59 (b) (3) which states:

- (b) Used plastic pipe is qualified for use under this part if:...*
- (3) It has been used only in natural gas service.*

PPL's position is that in accordance with 192.11 *Petroleum gas systems*, the propane distribution system is already subject to Part 192. New polyethylene pipe was installed in 1988, and met the requirements of 192.11, along with the requirements of 192.59 (a). Because the piping system is already qualified under 192.59 (a), the plastic pipe should not be considered "used" and subject to both 192.59(a) and 192.59 (b).

PPL recognizes the possible effect that liquid propane can have plastic pipe, including possible problems with future fusion operations. Based on the actual operating temperatures and pressures of the system, propane condensates are very unlikely. The system has been operated in accordance with the NFPA 58 LP-Gas Code, which limits the operating pressure of polyethylene piping to 30 psig. At 30 psig, propane condensation would not occur until the temperature reaches 10 degrees Fahrenheit. At the actual operating pressure of 10 psig, condensation would not have occurred unless the temperature reached 20 degrees Fahrenheit.

PPL contends that changing gas service, from propane vapor to natural gas, is in compliance with existing Part 192 requirements. The conversion of service will not compromise public safety, and the conversion is being prompted by a request of our customers. If the conversion is not allowed, the piping system will be replaced at a significant cost to PPL, and the public will be subject to additional inconveniences during construction activities.

PPL Gas Utilities strives to operate a safe pipeline system and to be in compliance with state and federal regulations. We respectfully request that you seek clarification as to whether continued utilization of plastic pipe, qualified under Part 192, becomes "used" pipe, if the pipeline changes from propane vapor service to natural gas service.

We would appreciate a prompt response, and you can contact me at 717-560-2750 if you have any questions.

Sincerely,  
Robert F. Beard, P.E.  
Manager  
Engineering and Technical Services

COMMONWEALTH OF PENNSYLVANIA  
PUBLIC UTILITY COMMISSION  
BUREAU OF TRANSPORTATION AND SAFETY

October 18, 2001

MR RICHARD HURIAUX, OFFICE OF TECH & REGS  
DOT/RSPA/OPS DP S-12  
400 SEVENTH STREET SW ROOM 7128  
WASHINGTON DC 20590

**REF: PLASTIC PIPE REQUEST FOR INTERPRETATION (192.59)**

Dear Mr. Huriaux:

Attached is a copy of a letter from PPL Gas Utilities requesting an interpretation related to the reuse of polyethelene pipe which previously had been utilized for the distribution of a propane-air mixed gas. **Part 192.59(b)(3)** allows reuse of pipe if "it has been used only in natural gas service". We have reservations about the reuse of this pipe due to the possibility of the liquid propane precipitating out and the effects the liquid might have on the integrity of the pipe. Also there is a question as to whether a propane- air mixture qualifies as natural gas for the purpose of 192.59. This propane-air mixture was not fed into a distribution system but was the only gas in this piping.

The petitioner has requested a prompt response in order that they may proceed with the use or replacement of the pipe in question.

Thank you in advance for your cooperation in this matter.

You may call me at (717) 787-1063 or e-mail me at [finnan@puc.state.pa.us](mailto:finnan@puc.state.pa.us) with any questions.

Very truly yours,  
Joseph T. Finnan, Supervisor  
Gas Safety Division  
Bureau of Transportation and Safety