U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

SEP 17 2010

Mr. David W. Merte, P.E.
Central Hudson Gas & Electric Corp.
284 South Avenue
Poughkeepsie, NY 12601

Dear Mr. Merte:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated March 22, 2010, you requested an interpretation as to whether Central Hudson Gas & Electric Corporation can utilize plastic pipe that is exposed to ultraviolet light for up to four years. You stated that plastic pipe manufactured by Performance Pipe testing predicts that Driscopipe 8100 series pipe has an outdoor unprotected exposure of at least four years (manufacturer's technical note included).

You stated that you have discussed outdoor storage of this pipe with the New York State Department of Public Service - Gas Safety Division Staff (GSD) and that the GSD staff has indicated that PHMSA does not allow outdoor unprotected storage of plastic pipe for more than two years and has suggested that you request a PHMSA interpretation of this issue.

We agree with the GSD staff that plastic pipes should not be exposed to ultraviolet light for more than the plastic pipe manufacturer's recommended maximum period of exposure or a maximum of two years, whichever is less, unless the pipes meet the American Society for Testing of Materials (ASTM) D-2513-99 requirements. The ASTM D-2513-99 is incorporated by reference into 49 CFR Part 192. In this case, two years is less than the manufacturer's recommendation of four years. Section A1.5.7 of ASTM D-2513-99 states:

> *Outdoor Storage Stability*—PE pipe stored outdoors and unprotected for at least two years from date of manufacture shall meet all the requirements of this specification. PE pipe stored outdoors for over two years from date of manufacture is suitable for use if it meets the requirements of this specification.

The technical note you provided (Technical Note PP 839-TN) states, "ASTM D2513 allows outdoor storage times in excess of two years where the manufacturer has shown that the pipe performance properties are not affected by the extended outdoor storage time." This statement does not appear to refer to the 1999 version of ASTM D-2513 requirements and, therefore, the contents of the Technical Note do not fully qualify PE pipes to meet the requirements of ASTM D-2513-99 when the pipes are stored outdoors unprotected for more than two years. Based on the information you provided, PE pipes that are stored outdoors unprotected in excess of the two year limit do not comply with the 49 CFR Part 192 requirements.

The Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety provides written clarifications of the Regulations (49 CFR Parts 190-199) in the form of interpretation letters. These letters reflect the agency's current application of the regulations to the specific facts presented by the person requesting the clarification. Interpretations do not create legally-enforceable rights or obligations and are provided to help the public understand how to comply with the regulations.

I hope that this information is helpful to you. If I can be of further assistance, please contact me at 202-366-4046.

Sincerely,

John A. Gale
Director, Office of Regulations

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RECEIVED MAR 25 2010

Central Hudson
Gas & Electric Corporation

March 22, 2010

Mr. Dino Rathod, P.E.
New York State Liaison
PHMSA Eastern Regional Office
820 Bear Tavern Road, Suite 306
West Trenton, New Jersey 08628

Dear Mr. Rathod:

Central Hudson Gas & Electric Corporation utilizes Driscopipe 8100 Series plastic pipe manufactured by Performance Pipe. We have discussed outdoor storage of this pipe with the New York State Department of Public Service – Gas Safety Division Staff. Central Hudson has noted that Performance Pipe testing predicts that Driscopipe 8100 series pipe has an outdoor unprotected exposure of at least four years. PSC Staff has indicated that PHMSA does not allow outdoor unprotected storage of plastic pipe for more than two years and has suggested that we request a PHMSA interpretation of this issue.

In accordance with ASTM D 2513 A1.5.7, " ...PE pipe stored outdoors for over two years from date of manufacture is suitable for use if it meets the requirements of this specification." Performance Pipe publishes a Technical Note PP 839-TN (attached) that indicates Driscopipe 8100 is protected against outdoor exposure through additive formulations. The bulletin further indicates "Accelerated laboratory weathering tests were conducted on the formulations that predict the yellow pipe materials are protected sufficiently to provide a service life of at least four years in outdoor exposure conditions."

I would appreciate your response on the potential maximum term of unprotected outdoor exposure for the storage of plastic pipe in accordance with 49 CFR Part 192 requirements.

Yours truly,

David W. Merte, P.E.
Section Leader – Gas System Safety and Pipeline Integrity

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PERFORMANCE PIPE
A Division of Chevron Phillips Chemical Company LP

www.performancepipe.com

Technical Note PP 839-TN
Weatherability
Outdoor Storage Limits of Performance Pipe Gas Distribution Pipe Products

Performance Pipe polyethylene gas distribution piping products are protected from UV effects and outdoor exposure to ensure pipe performance requirements are maintained. ASTM D2513 requires that all polyethylene gas pipes produced to the standard must be able to withstand a minimum of 2 years outdoor storage without affecting the pipe's ability to meet the requirements of the standard. ASTM D2513 allows outdoor storage times in excess of 2 years where the manufacturer has shown that the pipe performance properties are not affected by the extended outdoor storage time.[1]

Yellow Pipes

Yellow pipes, such as Driscopipe® 8100 and DriscoPlex® 6500, are protected against outdoor exposure through additive formulations. Accelerated laboratory weathering tests were conducted on the formulations that predict the yellow pipe materials are protected sufficiently to provide a service life of at least four years in outdoor exposure conditions. The accelerated tests measure changes in the tensile properties of the polyethylene materials after exposure to high levels of UV and humidity. Performance Pipe also conducts actual field pipe exposure tests to confirm the accelerated laboratory weathering test predictions. At periodic time intervals the field exposed pipe samples are tested for melt flow (ASTM D1238 condition 190/2.16), hoop stress/ring tensile (ASTM D1598/ASTM D2290), and ESCR (ASTM D1693, condition C). The test data confirm that there is no measurable change in pipe performance properties after over four years of outdoor exposure. A summary of the test data is attached.

NOTICE. This publication is for informational purposes and is intended for use as a reference guide. It should not be used in place of the advice of a professional engineer. This publication does not contain or confer any warranty or guarantee of any kind. Performance Pipe has made every reasonable effort towards the accuracy of the information contained in this publication, but it may not provide all necessary information, particularly with respect to special or unusual applications. This publication may be changed from time to time without notice. Contact Performance Pipe to ensure that you have the most current edition.

[1] ASTM D2513-04a Section A.1.5.7 *Outdoor Storage Stability*

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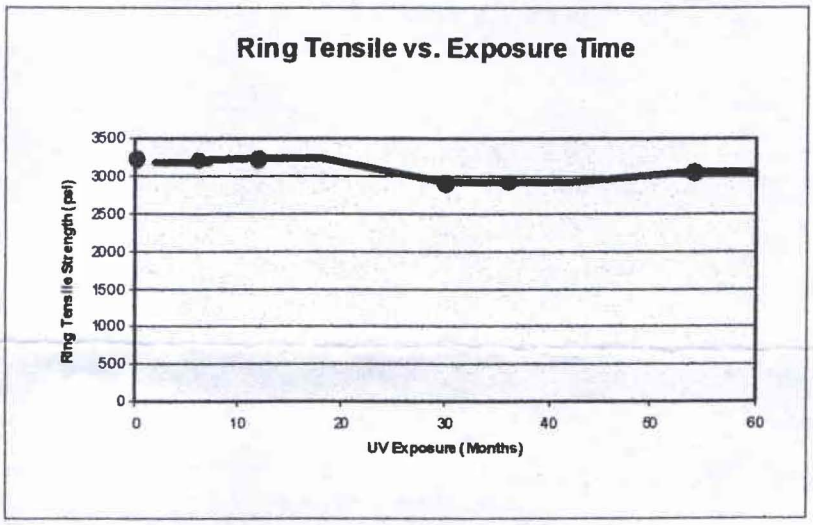
Black Pipes

For black pipes, such as Yellowstripe® 8300, the presence of a minimum of 2% carbon black properly dispersed in the polyethylene piping material provides long term protection from the potentially damaging affects of UV and outdoor exposure. 'Weathering studies have shown that pipe produced with a minimum 2.0% concentration of finely divided and evenly dispersed carbon black is protected from the harmful effects of UV radiation for indefinite periods of time.'[2] Field experience of piping materials containing a minimum of 2% carbon black confirms that pipe performance does not deteriorate after extended years of service in selected outdoor exposure.

Based on the tests conducted, Performance Pipe provides the following specific outdoor storage recommendations for the Performance Pipe gas distribution piping products.

- DriscoPlex® 6500 — 4 years
- Driscopipe® 8100 — 4 years
- Yellowstripe® 8300 — 10 years



[2] Plastic Pipe Institute 'Handbook of Polyethylene Pipe' Chapter 8, *Above Ground Applications*

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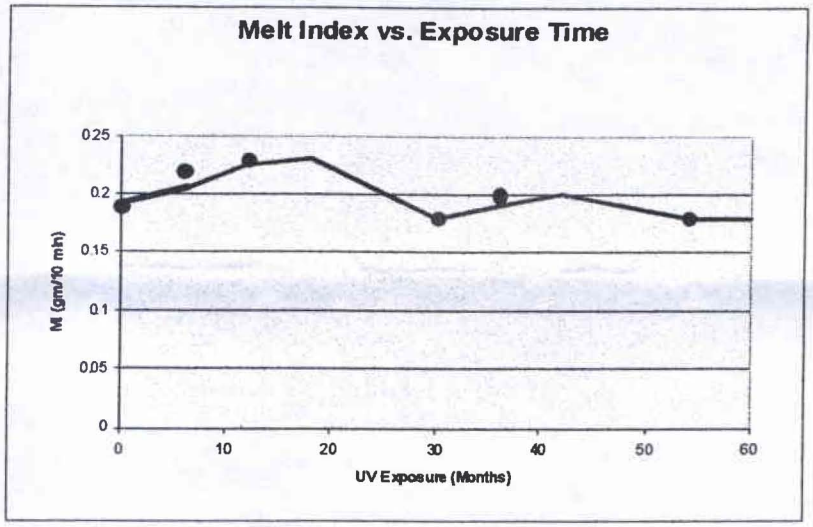

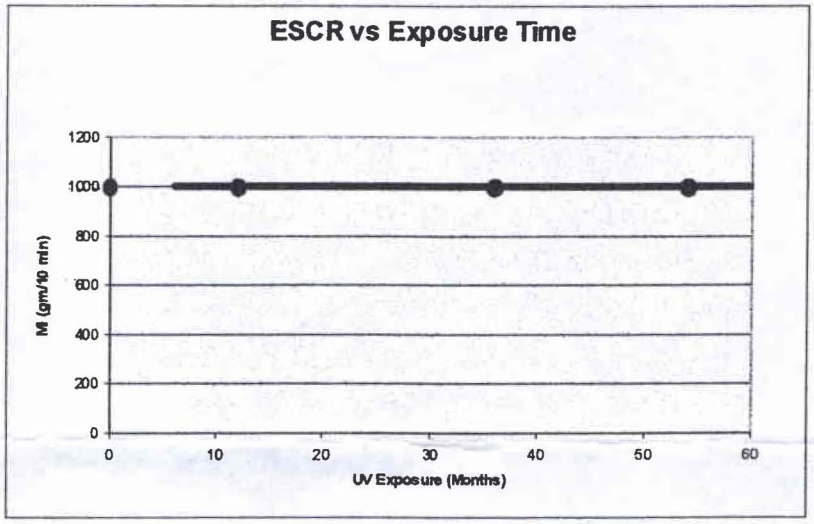

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