



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

DEC 14 2018

Ms. Pamela Lacey
Chief Regulatory Counsel
American Gas Association
400 North Capitol Street, NW
Washington, D.C. 20001

Dear Ms. Lacey:

This letter is in response to your March 19, 2018, letter requesting that medium- and high-density polyethylene be considered a “non-porous surface¹” as defined in 40 CFR 761.3, for the purposes of wipe sampling for waste profiling under 40 CFR 761.60 and decontamination under 40 CFR 761.79. Your letter transmitted a study titled, *Assessment of Polychlorinated Biphenyls (PCBs) in Polyethylene (PE) Gas Distribution Piping*.

Based on your letter and supporting study, we have determined that both medium- and high-density polyethylene used in natural gas distribution piping may be considered a “non-porous surface” as defined in 40 CFR 761.3, and may be wipe sampled as such for waste profiling under 40 CFR 761.60 and for decontamination under 40 CFR 761.79.² We have provided our reasoning for this decision below.

Results of Study Demonstrate that Medium- and High-Density Polyethylene in Natural Gas Distribution Piping can be Exposed to PCBs with Minimal Absorption.

EPA finds that the study titled, *Assessment of Polychlorinated Biphenyls (PCBs) in Polyethylene (PE) Gas Distribution Piping*, and conducted by NYSEARCH and National Grid demonstrated that the amount of PCB absorption into medium- and high-density polyethylene pipe was minimal, and penetration of PCBs beyond the immediate surface was limited. Based on the “worst-case” scenario (500 ppm, droplet scenario, at 20°C, extrapolated to a 50-year exposure) the medium- and high-density

¹ “Non-porous surface” is defined in 40 CFR 761.3 as “a smooth, unpainted solid surface that limits penetration of liquid containing PCBs beyond the immediate surface. Examples are: smooth uncorroded metal; natural gas pipe with a thin porous coating originally applied to inhibit corrosion; smooth glass; smooth glazed ceramics; impermeable polished building stone such as marble or granite; and high density plastics, such as polycarbonates and melamines, that do not absorb organic solvents.”

² The procedures in 40 CFR Part 761, subpart M apply to sampling of natural gas pipeline to determine PCB surface concentration for abandonment in place or removal and disposal in accordance with 40 CFR 761.60(b)(5) (see 40 CFR 761.240(a)). The procedures in 40 CFR Part 761, subpart P apply to sampling of non-porous surfaces in contact with liquid and non-liquid PCBs for decontamination under 40 CFR 761.79(b)(3) (see 40 CFR 761.79(f)). AGA must use the appropriate subpart, depending on the methods used for disposal and/or treatment of PCB contaminated natural gas pipeline.

polyethylene pipe would only absorb a maximum PCB concentration of 3 ppm, and this concentration would only be in the top 0.08" of the surface.

In addition, the study was conducted with realistic parameters commonly found in natural gas distribution piping, such as temperature, pressure, concentration, and Aroclor type (National Fuel Gas Code NFPA 54, ANSI Z223.1 provides more information on some of these parameters). Also, a 23-year old exhumed pipe was sampled at EPA's request, which verified that the conclusions in the study were appropriate for aged pipe, as aged pipe is representative of most pipe in natural gas distribution systems.

Medium- and High-Density Polyethylene Meet the Definition of a "Non-Porous Surface."

Based on the data provided in the study, EPA finds that medium- and high-density polyethylene used in natural gas distribution piping meets the definition of a "non-porous surface" under 40 CFR 761.3 because the pipe is "a smooth, unpainted solid surface that limits penetration of liquid containing PCBs beyond the immediate surface."

Medium- and High-Density Polyethylene may be Wipe Sampled for Purposes of Waste Profiling under 40 CFR 761.60 and Decontamination under 40 CFR 761.79.

Since medium- and high-density polyethylene used in natural gas distribution piping meets the definition of a "non-porous surface" under 40 CFR 761.3, EPA finds that such piping may be wipe sampled as a non-porous surface for waste profiling under 40 CFR 761.60 and for decontamination under 40 CFR 761.79.

If you have any questions regarding this letter, please contact Jennifer McLeod of my staff by email at McLeod.Jennifer@epa.gov or by phone at (703) 308-8459.

Sincerely,



Barnes Johnson, Director
Office of Resource Conservation and Recovery

cc: PCB Regional Coordinators