



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

SEP 25 2000

Mr. Wayne Stollings
President
Triangle Environmental Services
P.O. Box 13294
Research Triangle Park, NC 27709

Ref. No. 00-0226

Dear Mr. Stollings:

This is in response to your letter dated April 11, 1997, and your follow-up letter dated July 31, 2000, requesting clarification on the shipment of landfill gas samples under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you request written confirmation of your hazard class analysis of these gas samples as discussed with Dr. George Cushmac, Office of Hazardous Materials Technology.

According to your letter, environmental gas samples from landfills are packaged in 4.5 and 8.3 liter stainless steel canisters. The canisters are under a vacuum and can only be filled with sample to atmospheric pressure. The samples have the potential to contain a significant amount of methane and carbon dioxide so the canisters are half filled with helium prior to sampling as requirements in U.S. EPA Method 25-C. The maximum expected concentration of gases in the mixture contained at the time of shipment would be 50% helium, 25% carbon dioxide, 25% methane, and trace concentrations of various organic compounds.

It is the shipper's responsibility to properly classify a hazardous material in accordance with § 173.22. This Office does not perform that function. It is your understanding, based on your analysis of the gas samples and verbal confirmation from Dr. Cushmac, that the gas samples do not meet the hazard class defining criteria in Part 173 of the HMR for Division 2.3 poisonous gas materials or Division 2.1 flammable gas materials. If your gas samples do not meet the defining criteria in Part 173, they are not subject to the HMR.

Section 173.306(a)(4) requires gas samples to be transported under the following conditions: (1) a gas sample may only be transported as non-pressurized gas when its pressure corresponding to ambient atmospheric pressure in the container is not more than 105 kPa absolute (15.22 psia); (2) non-pressurized gases, toxic (or toxic and flammable) must be packed in hermetically sealed glass or metal



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inner packagings of not more than one L (0.3 gallons) overpacked in a strong outer packaging; (3) non-pressurized gases, flammable must be packed in hermetically sealed glass or metal inner packagings of not more than 2.5 L (0.5 gallons) overpacked in a strong outer packaging.

I hope this satisfies your inquiry on environmental air samples.

Sincerely,

A handwritten signature in cursive script, appearing to read "Delmer F. Billings".

Delmer F. Billings
Chief, Standards Development
Office of Hazardous Materials Standards

TRIANGLE ENVIRONMENTAL SERVICESPost Office Box 13294
Research Triangle Park, N.C. 27709*Booth
173.306
Limited Quantities*

July 31, 2000

*00-0226*Mr. Edward Mazzulo
Director, Office of Material Standards
Research and Special Programs
US Department of Transportation
Washington, DC 20590-0001

Fax (202) 366-3012

Dear Mr. Mazzulo

Please find enclosed my letter dated 11 April 1997 concerning the shipment of landfill gas samples in accordance with U.S. EPA Method 25-C testing and analysis.

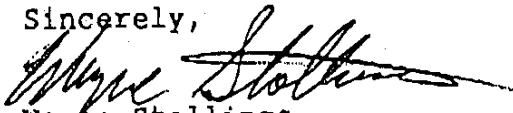
Prior to the letter I spoke with Dr. Cushmac concerning this matter. He confirmed my calculations but recommended that I write the letter in order to get a filed official response.

At a point afterward, I received a call from someone at DOT concerning the letter. I was informed that as it was only a confirmation of the understanding of the regulation and the associated calculations that a written response would not be needed. I was informed that my letter would be kept on file in the event there was a question concerning this matter.

In the past two weeks there was a need to confirm the status of this understanding. There was no record found of my letter nor any reference to the call I received concerning it.

In light of this situation I am resubmitting the letter and information via Fax in the hope that a response may be received faster than possible with the Postal Service. If I can get a written confirmation on DOT letterhead for my files I can better ensure that proper procedures are followed in the shipping of such gas samples.

Sincerely,

Wayne Stollings
President

CC: Mary Pat Roche