



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

DEC 9 2008

Mr. John Menzigian
QA Manager
Triumvirate Environmental, Inc.
61 Inner Belt road
Somerville, MA 02143

Ref. No.: 08-0201

Dear Mr. Menzigian:

This is in response to your letter dated July 30, 2008, regarding methods of achieving separation of hazardous materials, as indicated by the letter "O" in the Segregation and Separation Chart of Hazardous Materials (49 CFR 177.848(e)(3)), on the same transport vehicle in a manner that under conditions normally incident to transportation, commingling would not occur.


Your questions are paraphrased and answered as follows:

- Q. In §177.848(e)(3), the "O" in the table indicates that the materials must be separated to prevent commingling if packages were to leak. In previous letters on this subject, you suggest that physical space is considered an acceptable method of separation. Is there a minimum distance that is considered acceptable?
- A. The requirement for separation or non-adjacent loading is considered satisfied if the packages are separated in such a manner (for example, by using barriers, packages of non-hazardous materials, or intervening space) that their contents would not commingle in the event of leakage under conditions normally incident to transportation. There is no minimum distance specified, but, in our opinion, a distance of four (4) feet in all directions would be considered acceptable.
- Q. Vermiculite is a material commonly used in packaging chemicals for cushioning and absorption of any spilled liquids in the event the inner container breaks. If a drum of Class 3 (flammable liquid) and a drum of Division 5.1 (oxidizer) were loaded onto a truck with a bag of vermiculite (with sufficient volume to absorb the liquid content of either drum) placed between these containers, would this be considered proper separation?

- A. Section 177.848(e)(3) requires that separation must be accomplished by some means of physical separation, such as, non-permeable barriers, non-reactive freight, or non-combustible, non-reactive adsorbents between packagings of hazardous materials required to be separated; a bag of vermiculite placed between these containers would be acceptable only if it prevents commingling of materials in the event of leakage.
- Q. Your company, Triumvirate Environmental, creates a lab pack that meets the lab pack provisions prescribed in §173.12(b); your company adds a 6 mil HDPE bag as a liner on the inside of the drum and vermiculite regardless if the inner containers have solids or liquids in them. The purpose of the liner is to provide additional “leak-proofing” in the event that one of the inner packages breaks open. In these lab packs, the inner packages are surrounded by absorbent material and placed in a leak-proof bag, which is then placed in a Packing Group II rated container. Would this packing method be considered adequate separation as prescribed in §177.848(e)(3)?
- A. No. As previously stated, separation must be accomplished by some means of physical separation, such as non-permeable barriers, non-reactive freight, or non-combustible, non-reactive adsorbents between packagings of hazardous materials required to be separated. The mere integrity of a packaging may not be used as a physical barrier. If the packaging should fail, commingling of materials could not be prevented. Therefore, the packaging itself may not be used to satisfy the requirements of §177.848(e)(3).

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,



Susan Gorsky
Acting Chief, Standards Development
Office of Hazardous Materials Standards

TRIUMVIRATE ENVIRONMENTAL

Engrum
§177.848(e)(3)
§173.12(b)
Segregation/Exceptions
08-02-01

PROVIDING LONG-TERM,
INNOVATIVE SOLUTIONS

July 30, 2008

Mr. Edward Mazzullo, Director
Office of Hazardous Materials Standards
USDOT/PHMSA (PHH-10)
1200 New Jersey Avenue, SE East Building, 2nd Floor
Washington D.C., 20590

Dear Mr. Mazzullo,

Please accept this letter as a request for formal interpretation from your office. Triumvirate Environmental, Inc. wishes to receive clarification regarding what is considered proper segregation as described in section 177.848(e) (3).

Question 1: In 177.848(e) (3), the regulations tell us that an "O" in the table indicates that materials must be separated to prevent commingling if packages were to leak. Through previous letters of interpretation, physical space is considered an acceptable method of separation. Is there a minimum distance that is considered acceptable?

Question 2: Another method of separation mentioned in other letters of clarification is the placement of non-reactive absorbent between packages. Vermiculite is a material commonly used in packaging chemicals for cushioning and absorption of any spilled liquids in the event the inner container was to break. If I were to load onto a truck a drum of hazard class 3 and another drum of hazard class 5.1 and placed a bag of vermiculite (with sufficient volume to absorb the liquid content of either drum) between these containers, would this be considered proper "separation" as called for in the regulations?

Question 3: When Triumvirate creates a lab pack (as defined at 173.12(b)), we add a 6 mil HDPE bag as a liner on the inside of the drum and vermiculite regardless if the inner containers have solids or liquids in them. The purpose of the liner is to provide additional "leak-proofing" in the event that one of the inner packages was to break. Thus in any lab pack, the inner packages are surrounded by absorbent material and placed in a leak-proof bag, which is then placed in a packing group II rated container. Would this packing method be considered adequate separation as called for in 177.848(e) (3)?

Thank you in advance for your time and your input on these questions. Please contact me at (617)628-8098 if there are any needed clarifications to properly address these questions.

Regards,



John Menzigian
QA Manager
Triumvirate Environmental, Inc.



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