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

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

APR - 3 2003

Mr. Clifford L. Jacobson
Spray Chem Chemical Company, Inc.
705 Keenan Court
Durham, CA 95938

Ref. No.: 02-0310

Dear Mr. Clifford:

This responds to your letter regarding the proper segregation and separation of a Division 5.1 (oxidizer) and a Class 8 (corrosive) liquid under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Your questions are paraphrased and answered as follows:

Q1. What is the definition of the term "separation" in the segregation and separation requirements specified in § 177.848 of the HMR.

A1. The term "separation" as it relates to the segregation of hazardous materials on a transport vehicle or freight container is not defined in the HMR. Section 177.848(e)(3) states that accordingly during the course of transportation separation may be accomplished by some means of physical separation, such as non-permeable barriers, non-reactive freight, or non-combustible, non-reactive absorbents between packages of hazardous materials required to be separated.

Q2. You asked if the following scenario would be considered proper separation?

> A 330 gallon Intermediate Bulk Container (IBC) containing 35% hydrogen peroxide (Division 5.1) is loaded onto a van with 55-gallon drums or an IBC containing Class 8 (corrosive) liquid. The IBC containing the Division 5.1 (oxidizer) and the IBC or 55 gallon drums containing the Class 8 liquid are separated by placing other drums or IBCs containing non-hazardous material between them. The frame of the IBC containing the $H_z0_2$ is elevated above the floor and has fork lift cut outs for loading and unloading. The 55-gallon drums are elevated above the floor and placed on wooden or plastic pallets.

A2. The answer is yes. The provisions for separation can be met by placing barriers (i.e., impediments, obstructions, dividers, packages of non-hazardous materials, or intervening space) between packages inside of the transport vehicle or freight container that prevent commingling of materials in the event of leakage from the packages (See § 177.848(e)(3)).

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177.848

Whether the frame of the IBC is elevated above the floor of the van, or the 55 gallon drums are on plastic or wooden pallets are not relevant in determining that the requirement for "separation" is being met.

I hope this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

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

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Segregation
02-0310

Dec 4, 2002

Edward Mazzullo
Director : Office of Hazardous Materials Standards
US DOT/RSPA "DHM 10"
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Dear Mr. Mazzullo
I would like a formal interpretation of the following

1. What is the exact definition of the term "SEPARATION"
This would be when the term is used in the context of describing the separation required between an oxidizer class 5.1 and a corrosive liquid.

2. If an IBC container, for example, a 330 gallon Snyder tote were filled with 35% Hydrogen Peroxide (class 5.1) and was loaded onto a van with 55 gallon poly drums or identical Snyder poly totes that were filled with a corrosive liquid would the following be considered proper separation ?

A. The IBC containers liner is elevated above the floor by the poly structure that houses the liner. This is basically the frame of the Snyder that has the fork lift cut outs for loading and unloading.

B. The 55 gallon poly drums are elevated above the floor of the van by placement on standard wooden pallets.

C. The IBC containing the 5.1 oxidizer and the Corrosive liquid IBC's and drums are separated by distance by poly drums or IBC's containing non hazardous material between them and the IBC containing the 5.1 Oxidizer.

3. Would it make any difference if the pallets were plastic pallets and not wooden ?

4. If the fact that the pallets were wooden ( a combustible material) were not considered proper separation then would the floor of the van (also wood) be considered not proper separation ?

5. Would the poly frame around the IBC that holds the liner from contact with the wooden floor be considered proper separation from the floor and the poly drums on pallets ?
Would the IBC setting ontop of a plastic pallet be considered separation from the wooden floor ?

If not, then is it possible to transport the IBC, containing a 5.1 oxidizer in the same van with liquid corrosives in poly drums or for that matter in the same van with other IBC containers that contain liquid corrosive material ? If so, what would be the specific separation requirement ?

Thank You for your time

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