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

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

OCT 13 2000

Mr. Steve Starbuck
Jacobs Engineering Group, Inc.
2109 Emmorton Park Road, Suite 121
Edgewood, MD 21040

Ref. No. 00-0205

Dear Mr. Starbuck:

This is in response to your letter of July 14, 2000, requesting information on determining if a hazardous material is compatible with a plastic drum. You describe a scenario where you wish to determine if a particular waste stream, comprised in part by undetermined constituents, is compatible with a plastic drum (as per § 173.24(e)) by creating a surrogate material which has the same hazardous constituents as the actual waste material.

The procedure in Appendix B of Part 173 is required for materials in Packing Group I. This procedure may also be used for materials in Packing Groups II or III to demonstrate capability. A surrogate material which accurately reflects the composition of the actual material may be used to confirm that the plastic drum is capable of withstanding without failure the test prescribed in Appendix B of Part 173.

I hope this satisfies your request.

Sincerely,

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

000205

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July 14, 2000

Mr. Edward T. Mazzullo
Director, Office of Hazardous Materials Standards
U.S. DOT/RSPA (DHM-10)
400 7th Street S.W.
Washington, D.C. 20590-0001

Johnsen
Part 173, App B
00-0205

Re: Request for regulatory interpretation

Dear Mr. Mazzullo,

This letter is a formal request for regulatory interpretation concerning the testing described in 49 CFR 173 Appendix B. Our scenario is detailed below.

A liquid hazardous material is being packaged for shipment. The hazardous material is both corrosive and toxic. For both constituents, packing group III is applicable. According to the table in §173.2a, the corrosive characteristic takes precedence. Further, according to §172.101, the packaging specified in §173.203 may be used for this waste type.

The option of using a plastic drum to transport the hazardous material is currently being evaluated. The testing that is described in §173 Appendix B will be necessary to determine what type of container may be used to transport the material. The material will be the result of a hazardous waste treatment process that is covered under an EPA RCRA treatment permit. The problem is as follows: the testing described in Appendix B will require the hazardous material that is the result of the treatment process. However, the treatment process can not be performed until a compatible drum material is determined by the Appendix B method. For this reason, a surrogate material would be useful. The actual material will be made up of about 55% chloroform, 33% t-butyl alcohol, 8% DCDMH, and 5% other. The chloroform and DCDMH are the constituents that could cause the drums to be incompatible. The rest of the hazardous waste will contain substances that are toxic, but not corrosive. For the purposes of the Appendix B testing, could a surrogate mixture of DCDMH, t-butyl alcohol, and chloroform be used? Based on chemical analysis, the surrogate mixture would be more detrimental to the containers than the actual process waste. This mixture would have roughly the same ratio of DCDMH, t-butyl alcohol, and chloroform that the actual hazardous waste will have, but not the remaining part that, while toxic, is not corrosive. If it would be possible to use a surrogate material, what evidence would need to be presented to prove the material was acceptable?

Please call if you need any clarification regarding our request and thank you for your assistance.

Sincerely,

CAPACITY

Steve Starbuck
Jacobs Engineering Group, Inc.