



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

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

FEB 28 2001

Mr. E.A. Altemos
HMT Associates, L.L.C.
1850 K Street, N.W.
Suite 200
Washington, DC 20006-3500

Ref. No. 01-0040

Dear Mr. Altemos:

This is in response to your letter of February 7, 2001, regarding the standards for UN specification drums found in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you inquire about the opening size requirements distinguishing a non-removable head drum (e.g., 1A1) from a removable head drum (e.g., 1A2) found in § 178.504.

You describe a stainless steel drum with all welded construction except for a short, 20 mm high neck that is 72 mm in diameter (inside). This is welded to the top of the drum. A flat, stainless steel plate and gasket covers the hole and is secured with a circumferential clamp held by two bolts through the ears of the clamp. The flat plate on top has two openings of not more than 18.3 mm through which the drum is filled and emptied. You ask if this drum conforms to the requirements of § 178.504(b)(5), which limits the diameter of openings on non-removable, 1A1 drums to 70 mm.

The answer is no. The 72 mm neck on the drum constitutes an opening, even though the filling and emptying of the drum occurs through smaller holes drilled into the plate covering the opening, because the plate covering the neck is removable. We recommend certifying this drum as a 1A2 removable head drum or applying for an approval in accordance with § 178.601(h) to permit an opening larger than 70 mm.

I hope this satisfies your request.

Sincerely,

for 
John A. Gale

Transportation Regulations Specialist
Office of Hazardous Materials Standards



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Johnsen
§ 178.504

HMT ASSOCIATES, L.L.C.

Steel Drums

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February 7, 2001

Mr. Edward T. Mazzullo
Director, Office of Hazardous
Materials Standards (DHM-10)
Research and Special Programs
Administration
Department of Transportation
Washington, D.C. 20590-0001

Dear Mr. Mazzullo:

This is to request confirmation that a steel drum constructed as described herein is considered to be a non-removable head (1A1) drum in accordance with the provisions of § 178.504 of the Hazardous Materials Regulations ("the HMR"; 49 CFR Parts 171-180).

The drum concerned is a high-integrity (hydraulic test pressure of 820 kPa), stainless steel drum of all welded construction (except as noted herein). A short neck, approximately 20 mm high, and 72 mm in diameter (inside), is welded to the top of the drum. A flat, stainless steel plate is placed on a gasket installed over the lip at the top of the neck, and the assembly held ("sandwiched") tightly together by a circumferential clamp, the halves of which are secured together by two 3/8 x 2 inch bolts inserted through ears on opposite sides of the clamp. In the flat plate are two or more openings with a diameter of not more than 18.3 mm through which the drum is filled and emptied. These openings may be closed either by a threaded plug, or by a valve arrangement threaded into the opening. The neck and any valving arrangement that may be installed is protected by a stainless steel collar welded to the top of the drum.

As you know, § 178.504(b)(5) provides that "[o]penings for filling, emptying and venting in the bodies or heads of non-removable head (1A1) drums may not exceed 7.0 cm. Drums with larger openings are considered to be of the removable head type (1A2)." The word "openings" in

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the second sentence can only be interpreted as referring to openings serving the same purposes as those addressed in the first sentence; that is, "openings for filling, emptying and venting" the drum. Consequently, since the openings used for filling and emptying the stainless steel drum described herein do not exceed 7.0 cm, the drum would meet the requirements for designation as a non-removable head (1A1) drum.

Please confirm that my understanding is correct that the steel drum described above meets the requirements for a non-removable head (1A1) drum for purposes of application of the HMR. Your early reply would be most appreciated. Thank you for your consideration, and please do not hesitate to contact me if you have questions or require additional information regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. A. Altemos', with a long horizontal flourish extending to the right.

E. A. Altemos