



51 Monroe Street
Suite 812
Rockville, Maryland 20850
TEL (301) 577-3786 / FAX (301) 577-6476
www.reusablepackaging.org

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Standards and Rulemaking Division
Pipeline and Hazardous Materials Safety Administration
Attn: PHH-10
U.S. Department of Transportation, East Building
1200 New Jersey Avenue, SE.
Washington, D.C. 20590-0001

Re: Petition for Rulemaking on 49 CFR §173.28(c)9(1)(i)

Dear Sir or Madam:

Under 49 CFR §106.95(a), the Reusable Industrial Packaging Association (“RIPA”) hereby petitions for a rulemaking to revise the wording of 49 CFR §173.28(c)(1)(i) to include a requirement that reconditioning of metal drums must encompass “[c]leaning to base material of construction, with all former contents, internal and external corrosion removed, and any external coatings and labels substantially removed.”

As it currently reads, the provision states that reconditioning of a metal drum requires removing any external coatings and labels. This is an impossible standard to meet as, taken to its literal extreme, it mandates removal of coatings and labels (including their adhesive residues) down to the molecular level. Moreover, compliance with this requirement might actually impair the safety of hazardous materials packagings as the additional shot blasting, caustic washing and/or brushing necessary to meet this standard could harm the integrity of the drum metal.

Some PHMSA field investigators have strictly interpreted this provision and cited RIPA members for violations when the residual coatings and/or labels (including their adhesive residues) on a drum do not pose any realistic safety concern. As a result of such citations, RIPA representatives met with PHMSA staff on September 25, 2013 in Washington, D.C. to discuss the agency’s interpretation of “cleaning to base material” on the exterior of steel drums.

Although at that meeting PHMSA officials seemed to agree with RIPA that a strict interpretation of this provision was not necessary to promote the safe transportation of hazardous materials in commerce, the citations have continued unabated. RIPA will provide the Agency references to these citations upon request.

RIPA seeks to revise this provision to provide clarity for both drum reconditioners and enforcement staff, thereby enabling enforcement resources to be focused on matters that actually affect transportation safety.

Regulatory Background of this Provision

In interpreting any regulatory volume that has been evolving for more than a century, we believe that the primary goals should be to ascertain the intent of the original drafters of this provision as it went through the public notice and comment process of rulemaking and to examine the manner by which both DOT and industry have interpreted the provision in practice over the years. It is also important to determine if the issue impacts the safe transportation of hazardous materials and, if not, what the commercial effects of various interpretations may be.

Before the creation of DOT, and in the initial DOT hazardous materials regulations, there were no provisions describing reconditioning.

Docket No. HM-27

The opening discussion of steel drum reconditioning was in Docket No. HM-27. The preamble to the notice of proposed rulemaking states as follows:

“A review of reports of incidents involving leaking steel drums has revealed that many of the ‘leakers’ reported upon were ‘single-trip’ specification 17-series drums that had been reconditioned or repaired and reused. ...Deficiencies noted included attempts to repair badly damaged drums, removal of parent metal of a drum during reconditioning with resultant unacceptable reduction in wall thickness, and inadequate inspection and testing of the reconditioned drums prior to reuse for the shipment of hazardous materials.” HM-27; 34 Fed. Reg. 12187 (July 23, 1969).

In the subsequent HM-27 final rule, the preamble noted:

“Several commenters objected to the requirement that cleaning processes not remove parent metal from the drums. The [Hazardous Materials Regulations] Board believes that for the specification 17-series steel drums, there is insufficient allowance for significant reduction of parent metal thickness without a resultant unacceptable loss of integrity of the drum. The provision has therefore been retained.” HM-27; 35 Fed. Reg. 12275 (July 31, 1970).

Reconsideration of the final rule was sought on several points:

“One petitioner objected to the language in paragraph 9(m)(1), which states that any drum which shows evidence of significant reduction in parent metal thickness due to cleaning processes does not qualify for reuse. The intent of the requirement was to preclude the use of any cleaning process that would cause a deteriorative effect to the integrity of a drum.”

(Emphasis added.) *This could include the use of concentrated acidic solutions, certain abrasives, or even a hammer and chisel. It does not include use of those methods that do not cause significant reduction in parent metal thickness. Upon full consideration of the petition for modification of paragraph (m)(1) the Board has decided it should and is hereby denied.*” HM-27; 35 Fed. Reg. 19021 (Dec. 16, 1970).

RIPA notes that in drafting the rule, PHMSA’s predecessor agency was concerned about the potential loss of thickness of steel by particularly harsh cleaning methods. We also note that steel drums today are on average substantially thinner than the original 17-series specifications.

Docket No. HM-181

There was discussion of drum reconditioning in the conversion of DOT specification packagings to performance standards in HM-181. The 1987 notice of proposed rulemaking included only a brief mention: *“For the purposes of this subchapter, reconditioning is the repair, replacement of non-integral packaging components (such as removable gaskets, closure devices cushioning material, etc.) or leakproofness testing of non-bulk packagings, other than cylinders.”* HM-181; 52 Fed. Reg. 16694 (May 5, 1987).

The 1990 final rule, however, included the sentence: *“Cleaning to base material of construction, with all former contents, internal and external corrosion, and any coatings and labels removed.”* HM-181; 55 Fed. Reg. 52614 (December 21, 1990).

Significantly, the preamble in the final notice of proposed rulemaking did not refer to this new language and only said: *“Reconditioning is defined for metal drums with traditional reconditioning procedures.”* HM-181; 55 Fed. Reg. 52427 (December 21, 1990).

At the time RIPA read this preamble to the final rule as meaning that no new requirements were imposed, because no change in processes had been expressed in the NPRM. The same language was used when the UN defined steel drum reconditioning, again reflecting our conclusion that no changes to existing processing practices was intended except to preclude extensive use of processes such as concentrated acid and abrasives that could harm the parent metal of the drum.

Safety Concerns

At no time has any traditional cleaning process to base material of a metal drum removed 100% of the prior coating. More acidic or caustic concentrations could be used, or more intensive shot blasting could be used; however, the risk to the integrity of the drum, safety in transportation and employee safety and health is greater than the risk presented by some minor paint residue remaining on the exterior of the drum (there is no requirement to remove the coating from the interior of the drum).

The cleaning and surface preparation processes cited above, i.e., caustic washing, brushing and shot blasting, have been used by North American and international reconditioning

companies for 60 years or longer. Their purpose is solely to prepare the outer surface of drums for paint reapplication and aesthetic appearance. The degree of coating removal is predicated on the type of process used, the intended market for the finished drum and customer demands. At no time have these processes been viewed by reconditioners or this agency as a safety issue.

Furthermore, general industry practice for metal surface preparation – not solely for reconditioners – provides for the retention of some surface residue. A widely recognized shot blasting standard developed by experts in metal surface preparation and metal coatings illustrates this fact.

Standard SP-14 / NACE 8: Industrial Blast Cleaning

“This joint standard covers the requirements for industrial blast cleaning of unpainted or painted steel surfaces by the use of abrasives. These requirements include the end condition of the surface and materials and procedures necessary to achieve and verify the end condition. An industrial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, and dirt. Traces of tightly adherent mill scale, rust, and coating residues are permitted to remain on 10% of each unit area of the surface (see Section 2.6) if they are evenly distributed. (Emphasis added.) The traces of mill scale, rust, and coating shall be considered tightly adherent if they cannot be lifted with a dull putty knife. Shadows, streaks, and discolorations caused by stains of rust, stains of mill scale, and stains of previously applied coating may be present on the remainder of the surface.”

In short, the traditional processes of surface preparation used by the RIPA membership optimally prepare a drum surface for new paint without risking damage to the integrity of the drum. New paint provides protection against prospective weathering, rust or corrosion in transportation. Residues of paint or staining on drums remaining after reconditioning do not present a safety risk.

Transport Canada Regulatory Approach

RIPA suggests that PHMSA adopt the regulatory approach taken by Transport Canada in its TDG Regulations, CGSB-43.126-2008, “Reconditioning, Remanufacturing and Repair of Drums for the Transportation of Dangerous Goods.” Two provisions address the issue of coating removal in the reconditioning process. Section 6.2 reads in relevant part:

“f. Clean the exterior of the steel drum with an abrasive material or suitable chemical to substantially remove paint, rust, durable labels and adhesives.”

Section 6.2.3 reads:

“c. have all external paint, durable labels and adhesives substantially removed....”

The Canadian standard is implementing the same words of the UN Model Regulations now set forth in 49 CFR §173.28. RIPA asserts that this HMR provision should be read with the intent of “substantially” removing coatings and labels.

Additionally, we refer DOT to Section 6.2.5 of the cited CGSB standard, “Reconditioning Success Criteria.” It neatly summarizes both the purpose and general intent of Canadian reconditioning rules and, because of its emphasis on transportation safety, can also be read as a useful guide to general rulemaking on this subject. The section reads:

“A steel drum successfully passes the reconditioning process if all required steps specified in par. 6.2 have been completed and have revealed no defect that before the next inspection is due and under normal conditions of transport, including handling, may reasonably be expected to cause a condition or release of dangerous goods that could endanger public safety.”

This “reasonableness standard” of successful reconditioning in the Canadian regulations should be used a model for revising the HMR as requested herein.

We appreciate your consideration of this petition.

Respectfully submitted,

A handwritten signature in black ink that reads "Paul Rankin". The signature is written in a cursive, slightly slanted style.

Paul W. Rankin
President

cc: Ricky Buckner
Rick Schweitzer
Barry Wingard