



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

AUG 25 2000

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Washington, D.C. 20590

Jack E. Helms, Ph.D, P.E.
Advisor, Transportation
Albemarle Corporation
451 Florida Street
Baton Rouge, LA 70801-1780

Ref. No. 99-0166

Dear Dr. Helms:

I apologize for the delay in responding to your letter concerning the requirement in 49 CFR 173.31(d)(1)(vi) to carefully inspect a frangible (rupture) disc in a pressure relief device prior to each hazardous material shipment. This requirement has its origins in regulations of the Interstate Commerce Commission issued in 1921. As you noted, the wording of this requirement was most recently revised in a final rule published on September 21, 1995, under RSPA's Docket Nos. HM-175A and 201 (60 Fed. Reg. 49098).

The language of § 173.31(d)(1)(vi) states the purpose of this type of inspection is to check "for corrosion or damage that may alter the intended operation of the device." For that reason, in response to a comment submitted in a separate rulemaking proceeding under Docket No. HM-216 (61 Fed. Reg. 28666, 28671; June 5, 1996), we stated in the preamble that RSPA and FRA believe in order to fully inspect a rupture disc (both top and bottom), the disc must be removed from the safety vent device. It has been FRA's experience that a rupture disc may appear normal on the top side, but be severely damaged or corroded on the bottom side.

You and others have raised concerns about the language of the present rule and its application to persons that forward a loaded tank car received from another location or return a tank car with residue. We anticipate initiating a rulemaking in the near future to address these concerns.

Sincerely,

for Thomas G. Allens
Edward T. Mazzullo

Director, Office of Hazardous
Materials Standards



990166

173.31(d)



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October 25, 1999

Mr. Edward T. Mazzullo
Director
Office of Hazardous Materials Standards
Research & Special Programs Admn.
Department of Transportation
Washington, DC 20590

Ref: 49 CFR 173.31(d)(1)(vi)

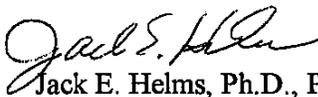
Dear Mr. Mazzullo:

The Chemical Manufacturers Association (CMA) has filed comments concerning the interpretation of the referenced regulation that has been developed by RSPA and the FRA. However, CMA only addressed residue cars.

In my letter, dated June 21, 1999, Albemarle's concerns with this interpretation were outlined. Those comments about safety, environmental and legal considerations are still in order

We request that RSPA and FRA specifically reconsider these matters for all tank cars affected, not just residue cars. These issues are of grave concern to our company.

Best regards,


Jack E. Helms, Ph.D., P.E.
Advisor, Transportation

cc: W. F. Carter
W. D. Eby
G. W. Rousseau - HMT Associates



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§ 173.31(d)

99-0166

June 21, 1999

Mr. Edward T. Mazzullo
Director
Office of Hazardous Materials Standards
Research & Special Programs Admn.
Department of Transportation
Washington, DC 20590

Ref: 49 CFR 173.31(d)(1)(vi)

Dear Mr. Mazzullo:

We have learned that RSPA and FRA intend to interpret the explanation in the preamble to HM-216 published in the June 5, 1996 Federal Register, concerning 49 CFR 173.31(d)(1)(vi), as establishing requirement for on-going internal examinations of relief devices on tank cars in continual service to and from customers of shippers who originally filled these tank cars.

It is confusing that the "external visual inspection" prescribed in 173.31(d) is intended to prescribe internal examinations and comes as a totally unexpected requirement. In addition, the fact that explanations for this Part 173 rule were given in the subject Federal Register, which change under discussion related to manufacturer's requirements under Part 179, clouds the issue further. In addition, the inspection activity requirement as apparently being interpreted by DOT is unworkable in numerous circumstances, both for safety and environmental reasons. The following highlights should help DOT understand our concerns.

A. Safety and operational considerations

1. Safety - Hazardous Materials are just that, hazardous. For all our products, plant safety procedures for the protection of personnel and environment require that a tank car must be cleaned before it is opened. This would certainly not be possible for most receivers of our shipments before returning a car containing the residue of one of our hazardous products to one of our facilities.
2. Environmental - Shippers would be forced to clean each car before loading so that the rupture disc could be removed for inspection. This could increase the amount of hazardous materials that are released to the atmosphere during cleaning and/or result in an increase in contaminated water or other liquid used in the cleaning operation that would require disposal as a hazardous waste.
3. Liability - Shippers of hazardous materials would be assuming significant potential liability by

allowing a customer to open a tank car to inspect a rupture disc before the tank car is returned for refilling.

4. Application of tank car facility registration requirements - Every company that receives shipments of hazardous materials, even though it might not own a single tank car, would have to be registered by the Association of American Railroads as at least a Class F tank car facility. This would be required for the facility to meet the law per the proposed interpretation.

B. Regulatory Background

Two items published in the Federal Register in connection with tank car rulemaking over the past few years yield contradictory guidance in respect to rupture disc inspections

1. In the Federal Register of September 21, 1995, in connection with changes to the rules governing rupture disc inspection under 173.31, RSPA stated in a rulemaking preamble under Dockets HM-175A and HM-201 that removal of the phrase "to the extent practicable" in former rules governing such inspections, "does not enlarge the 'to the extent practicable' standard". In the explanation, RSPA stated the addition of the words "to the extent practicable" was "to clarify the purpose of the regulations and to make the regulation more realistic and to eliminate from the regulation items which were either very difficult to inspect such as a full inspection of safety relief valves or excess flow valves." DOT went on to say in discussing the background to this change that "Read literally, the regulation at that time would impose a duty on the shipper to disassemble and inspect safety valves and excess flow valves prior to each trip."

In the same explanation, RSPA added: "From the beginning this phrase was meant to, reflect the practical impossibility of, for instance, taking the valves apart before each trip." Later in the same preamble, it was mentioned that "[T]he provisions would not be substantially changed." Unless we are to conclude that RSPA is now making a distinction between valves and discs, it would appear that there has been a significant change in understanding of the intent of 173.31(d)(1)(vi). Many of the same problems that existed years ago with removal and inspection of valves apply to discs as well. It would not seem that DOT would make such a distinction. Rather it seems, that this historical information may have been overlooked.

2. The second statement about this rule came later, at page 61 FR 28671, Federal Register of June 5, 1996, Docket HM-216, wherein RSPA noted in addressing tank car manufacturing requirements when making specific reference to 173.31(d), "that in order to fully inspect a rupture disc, the disc must be removed from the safety vent device. It is important that a careful inspection (both top and bottom of the disc) be conducted for corrosion and damage

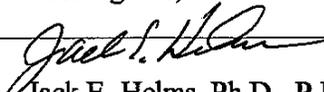
Mr. Edward Mazzullo
Office of Hazardous Materials Standards
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because it has been FRA's experience that a rupture disc may appear normal on the top side, but be severely damaged or corroded on the bottom side." From this it appears that inspectors are concluding and DOT is prepared to agree, that for an inspection to meet DOT requirements, the disc must be removed and examined on both sides. In addition, careful examination of the words would indicate that this also would apply to combination valves with discs in line. Yet, the inspection requirements of 173.31(d) are described as an "external visual" inspection.

Thus, it is reasonable that the position now being taken by DOT in explaining the meaning of this regulation, when considering the historical perspective, comes as totally unexpected to the regulated community.

If the report we have received is accurate, we respectfully submit that the issues briefly discussed above were not adequately considered prior to suggesting this new application of the DOT requirements. If our understanding of the requirements as reported to be interpreted by DOT are correct, we further request that RSPA and FRA specifically reconsider these matters which are of grave concern to our company.

Best regards,



Jack E. Helms, Ph.D., P.E.
Advisor, Transportation

cc: W. F. Carter
W. D. Eby
G. W. Rousseau - HMT Associates