



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

AUG 25 2000

Mark A. Feldman, Ph.D., CQMgr  
Regulatory Affairs Manager  
Solvay Intertox, Inc.  
P.O. Box 27328  
Houston, TX 77227-7328

Ref. Nos. 99-0196 & 00-0033

Dear Dr. Feldman:

I apologize for the delay in responding to your letters 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. 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).

As 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. Allen*  
Edward T. Mazzullo

Director, Office of Hazardous  
Materials Standards



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January 25, 2000

Mr. Edward T. Mazullo  
Office of Hazardous Materials Section  
Research & Special Programs Administration  
Department of Transportation  
Washington, D.C. 20590

Re: Interpretation of 49 CFR 173.31(d)(1)(vi), (Pressure Relief Device examination)

Dear Mr. Mazullo:

We recently became aware of a letter sent by the Chemical Manufacturers Association to the Department of Transportation ("DOT") concerning the interpretation by the Federal Railroad Administration ("FRA") of 49 CFR 173.31(d)(1)(vi) dated November 5, 1999.

As members of the Chemical Manufacturers Association, we fully support and endorse its efforts to improve the safe handling of hazardous materials in all aspects. However, we feel that by confining its discussion to residue tank cars, the CMA letter unnecessarily limits the scope of discussion. The same points being made by the CMA with regard to empty cars apply to full railcars as well.

In addition to the points made by the CMA in their letter, requiring the rupture disk to be removed from the safety device to fully inspect the disk in a loaded tank car presents further hazards and difficulties for many products due to the inherent nature of the material.

Many products are dangerous and require appropriate personal protective equipment before any work may be performed. Some of the personal protective equipment will decrease the mobility and/or field of vision of an operator climbing a railcar and inspecting the rupture disk assembly as presently required / interpreted. This will significantly increase the operational hazards involved in rupture disk verification.

Some materials may react adversely to even minute amounts of contamination resulting from opening the car. This situation would therefore require cleaning of the car before and/or after the disk inspection to prevent any such contamination unless the work were performed under 'clean' conditions.





# SOLVAY INTEROX

For very high purity materials, opening the railcar to perform the rupture disk inspection may also compromise its quality unless the work were, again, performed under appropriate 'clean' conditions.

This would be the case, for example, for some grades of our product, hydrogen peroxide. Should it be necessary to clean a car before disk inspection, we would be required to rinse the car with high purity water. After inspection, we would again rinse the car with high purity water and then again with at least 1000 gallons of product equal to or superior in purity to that to be loaded in the rail car. This would delay shipment by at least one day, and perhaps more.

It should be noted, too, that, with each cleaning, as mentioned above, significant additional waste will be generated and will require appropriate handling for disposal.

Very few, if any, of the rupture disks we have in service fail due to age or deterioration. Most fail due to mishandling or hydraulic surge during transit.

History has shown that, at least for our peroxygen products, that a top only inspection is adequate to provide the necessary safety margins.

We respectfully request that you consider the actions and consequences that will result should DOT interpretation continue as at present. We ask that DOT issue a revised interpretation applicable to all offerors of rail tank cars reversing the interpretation DOT has presented in the preamble to HM-216 [61FR 28671] back to its original explanation in Federal Register Docket HM-175A & HM-201 preamble (40CFR 173.31) of September 1995.

Sincerely,

Dr. Marc A. Feldman, CQMgr  
Regulatory Affairs Manager  
Solvay Interlox, Inc.

Cc: M.E. Nevill  
G.W. Rousseau  
P.J. Harding  
C.R. Escobar





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*Mack*  
*§ 173.31*  
*99-0196*

July 15, 1999

Mr. Edward T. Mazzullo  
Office of Hazardous Materials Section  
Research & Special Programs Administration  
Department of Transportation  
Washington, D.C. 20590

Re: Interpretation of 49 CFR 173.31(d)(1)(vi)

Dear Mr. Mazullo:

We recently became aware of discussions at the Department of Transportation ("DOT") concerning the interpretation by the Federal Railroad Administration ("FRA") of 49 CFR 173.31(d)(1)(vi). As you know, this section addresses pressure relief device examination before shipping.

It is our understanding that the FRA now interprets this section to require that the railcar rupture disk must be removed from the safety device and carefully inspected, both top and bottom, before the railcar is moved. This new interpretation apparently applies to all railcars, whether loaded or unloaded but containing a residue.

We believe this interpretation is contradictory to the original intent of this safety requirement and that it potentially increases the hazards and difficulty in transporting railcars.

**The Contradiction:**

The Federal Register Docket HM-175A & HM-201 rule-making preamble (40 CFR 173.31) of September 21, 1995 states that the removal of the phrase "to the extent practicable" does not expand the scope of the standard. DOT continues to say that the purpose of the rule-making was to "clarify the purpose of the regulations and to make the regulation more realistic and to eliminate from regulations items which were either very difficult to inspect such as a full inspection of safety relief valves or excess flow valves." DOT has also indicated that "[r]ead 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", which implied that this was not the result sought.



Unless a distinction is now being made between these valves and rupture disks, which is not our understanding, DOT has reversed itself in the preamble to HM-216 [61 FR 28671], where it interprets 40 CFR 173.31(d) to mean the disk must be removed from the safety device to fully inspect a rupture disk.

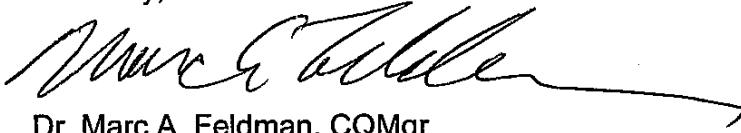
**Safety and Operational Consequences:**

1. Requiring customers to open the rupture disk assembly for inspection prior to returning an "empty" railcar would create significant risk to safety and potential liability unless extensive training were provided to each customer and each facility.
  2. Opening the rupture disk assembly may be hazardous in and of itself due to the nature of the materials being shipped. Many materials are inherently dangerous and require appropriate personal protective equipment or thorough car cleaning before any work may be performed. Some materials may react adversely to any contamination resulting from opening the car and may require additional cleaning after inspection. This would be the case, for example, with hydrogen peroxide, which we ship in railcars. Many customers do not have the resources to complete these material specific requirements. It should be noted that, with each cleaning, significant additional waste may be generated. In sum, it is likely that many cars would need to be cleaned before every shipment, and some may need to be cleaned twice before shipping. These cleanings would have to be performed by both the supplier and the customer.
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3. Every site that sends a hazardous material shipment or returns an "empty" railcar containing residue would be required to register with the Association of American Railroads (AAR) as at least a Class F tank car facility.
  4. The quality of very high purity materials may be compromised by opening a railcar to perform the rupture disk inspection.

The Department of Transportation and Research and Special Programs Administration ("RSPA") have always tried to balance risk and hazard management with reason and practicality. This departure is a surprise and in our opinion does not follow those guidelines.

We respectfully request that you review the actions and consequences that will result should this interpretation continue in this direction.

Sincerely,

A handwritten signature in black ink, appearing to read "Marc A. Feldman", with a long horizontal flourish extending to the right.

Dr. Marc A. Feldman, CQMgr  
Regulatory Affairs Manager  
Solvay Interlox, Inc.

Cc: M.E.Nevill  
G.W. Rousseau  
M. Heimowitz  
L.D. Pieper  
P.J. Harding