



National Transportation Safety Board

Washington, D.C. 20594

December 13, 1990

Office of the Chairman

Mr. Travis P. Dungan
Administrator
Research and Special Programs Administration
400 Seventh Street, S.W.
Washington, D.C. 20590



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Dear ~~Mr.~~ *Travis* Dungan:

Thank you for your letter of September 24, 1990, responding to the National Transportation Safety Board's Safety Recommendations I-90-5 through I-90-12. We note that the Research and Special Programs Administration (RSPA) has initiated action to implement several of the recommendations.

The Safety Board is encouraged that in response to Safety Recommendations I-90-5 and -6, RSPA will develop written procedures to formalize and strengthen the program addressing DOT specification or exemption packagings that do not meet minimum safety requirements. The response indicates that additional tests, packaging recall, retrofits, or notification to owners may be considered when noncomplying packages are discovered. Although the Board considers these actions positive steps toward achieving the objective of Safety Recommendations I-90-5 and -6, the Safety Board is concerned that the full intent of the recommendations has not been adequately addressed. With respect to I-90-5, your response suggests that RSPA will implement these courses of action in its oversight of future testing of cylinders. However, there is no clear indication that RSPA will apply these actions to cylinders already known to RSPA to have not been tested and inspected in accordance with regulatory requirements and to those that have been tested but failed to meet the regulatory requirements. The Safety Board would appreciate being informed if RSPA intends to make these courses of action retroactive.

Further, the Board is concerned that your agency's procedures do not clearly specify the actions to be taken by RSPA when RSPA determines that only a minimal hazard exists. This concern applies to both Safety Recommendations I-90-5 and -6. With respect to I-90-6, the Board is concerned that the program outlined does not commit RSPA to assure removal of containers from use in transporting hazardous materials when the containers do not meet minimum safety requirements. Specifically, under the proposed program, containers that do not meet the regulatory requirements will be allowed to continue in the transportation of hazardous materials if RSPA determines that only a minimal hazard exists. The Federal regulations set minimum safety standards for the transportation of hazardous materials, and the Board does not believe that containers should be allowed to continue in unlimited service when they fail to meet the minimum standards, even if the containers pose only minimal hazards. This posture would condone or sanction

the manufacture and use of containers that do not meet the specifications. The Safety Board is concerned that the prior propensity of RSPA to ignore certain noncompliance (as noted in the Board's Collier County, Florida accident report that prompted these recommendations) may have resulted from RSPA's determination that such containers pose only minimal hazards. With respect to I-90-5, the Safety Board is concerned that RSPA may be aware of cylinders now in transportation that do not meet minimum specifications and may determine that these cylinders present only a minimal hazard, thus cylinders may also be permitted to remain in transportation indefinitely. Pending further consideration of our concerns, Safety Recommendations I-90-5 and -6 will be held in an "Open--Acceptable Response" status in view of RSPA's commitment to formalize and strengthen existing practices.

The Safety Board notes that, in response to Safety Recommendation I-90-7, RSPA intends to issue a Notice of Proposed Rulemaking (NPRM) that will propose standards for appurtenances on cylinders to reduce the risk of these attachments puncturing other cylinders during transportation. The Board notes that Manchester Tank and Equipment Company, Inc., has already agreed to redesign the "horizontal saddle bracket" on its DOT specification 4BW cylinders. It should also be noted that identical attachments were present on cylinders involved in the Collier County accident that were manufactured by another company. The NPRM should be issued expeditiously to reduce the hazards posed by this safety problem. Please provide a proposed date for the issuance of this NPRM. Safety Recommendation I-90-7 will be held in an "Open--Acceptable Response" status pending issuance of the final rule.

In response to Safety Recommendation I-90-8, RSPA acknowledged that sharp appurtenances and the lack of vertical restraints on packagings contributed to the severity of the accident in Collier County. The Safety Board notes that RSPA agrees with the need to address sharp appurtenances on packagings; however, the Board believes that measurable efforts also must be made to prevent packages of hazardous materials from being ejected from vehicles during transportation. When ejected from vehicles, packagings can be subjected to severe forces, especially when striking hard, stationary objects.

As RSPA has noted, hundreds of millions of hazardous materials packages are shipped annually, and the Board acknowledges that many, if not most, are transported in enclosed van-type trailers in which restraints may not be necessary. However, the Safety Board believes that for open or flatbed type vehicles, which was the type of vehicle involved in the Collier County accident, some type of restraint such as webbing, nets, or straps should be required to prevent hazardous materials containers from being ejected during less severe accidents, such as relatively slow speed overturns and jackknives. Pending further consideration of the Board's comments, Safety Recommendation I-90-8 will be held in an "Open--Unacceptable Response" status.

The Safety Board notes that RSPA agrees with Safety Recommendation I-90-9 and intends to issue an Advance Notice of Proposed Rulemaking (ANPRM) to address the independent inspections of new and reconditioned low pressure

cylinders. The Board would appreciate being informed of the proposed date for issuing the ANPRM. In the meantime, Safety Recommendation I-90-9 will be held in an "Open--Acceptable Response" status.

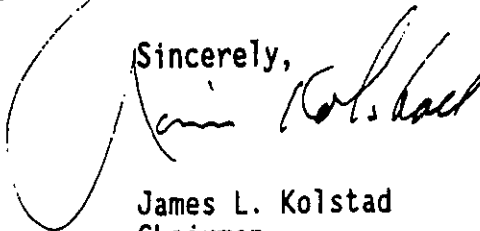
The Safety Board is encouraged that RSPA is developing a draft NPRM that will consolidate and clarify the specification requirements for high pressure cylinders. We note further that a similar NPRM will be issued on low pressure cylinders. A consolidation of similar specifications and clarification of terminology should help to make the cylinder specification requirements clear and consistent. Proposed dates for issuing these NPRMs would again be appreciated. Safety Recommendation I-90-10 will be held in an "Open--Acceptable Response" status.

In response to Safety Recommendation I-90-11, RSPA limited its consideration of improving the visibility and effectiveness of placards to the addition of placards to the top and bottom of vehicles and rejected the need for improvement. However, in the Collier County accident and others investigated by the Safety Board, end placards were not visible to emergency responders, and responders unwittingly walked into an accident site involving hazardous materials. Front placards on the trailer have often been obscured by the tractor, and rear placards, attached to removable gates, have been thrown from the vehicle during an accident sequence. The Safety Board believes that RSPA should reconsider the adequacy of requirements for placarding the front of vehicles and the attachment of placards to nonpermanent components on vehicles, such as removable gates. Pending reconsideration of this recommendation, Safety Recommendation I-90-11 will be held in an "Open--Unacceptable Response" status.

The Safety Board notes RSPA's discussion of the operational factors involved in developing a procedure to distinguish cylinders that contain significant quantities of hazardous materials from those that are empty or contain residue. We note further and agree with RSPA's statement that the size of markings that could be placed on most cylinders would be too small to be useful for emergency responders at a safe distance, especially during the early stages after an accident. Additionally, the Safety Board believes that emergency response personnel should exercise utmost precaution when hazardous materials are involved and only approach vehicles involved in accidents that contain hazardous materials when properly protected. The Safety Board has reviewed this recommendation and believes that RSPA's position that limited benefits would be gained from displaying fill level markings has merit. Consequently, the Board has placed Safety Recommendation I-90-12 in a "Closed--Reconsidered" status.

The Safety Board appreciates the efforts of RSPA to improve the transportation of hazardous materials.

Sincerely,



James L. Kolstad
Chairman

cc: Donald R. Trilling