



U.S. Department
of Transportation

Research and
Special Programs
Administration

The Administrator

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

SEP 24 1990

The Honorable James L. Kolstad
Chairman
National Transportation Safety Board
800 Independence Avenue, S.W.
Washington, DC 20594

Dear Mr. Chairman:

This letter is in response to recommendations I-90-05 through 12 resulting from an accident in Collier County, Florida on November 30, 1988, involving a tractor-flatbed semi-trailer that overturned while transporting hazardous materials. The eight recommendations to RSPA address a wide range of safety issues including cylinder testing and inspection, design standards for cylinder attachments, requirements for securing cylinders on vehicles, and methods for improving hazard warning on vehicles, and marking systems for cylinders. We have reviewed the recommendations and our response is presented in the enclosed document.

Sincerely,

Travis P. Dungan

Enclosure



RSPA RESPONSE TO NTSB RECOMMENDATIONS I-90-5 Through I-90-12

Recommendation I-90-05:

Require all manufacturers of Department of Transportation (DOT) specification containers that were not tested and inspected in accordance with regulatory requirements, and all that were properly tested but that failed to meet regulatory requirements, to retest randomly selected containers from each lot of these identified containers in accordance with DOT regulatory procedures; and to notify the owners of containers in lots that fail the tests to remove DOT specification markings. (Class II, Priority Action)

Recommendation I-90-06:

Modify the compliance program to determine that containers are removed from use in transportation of hazardous materials when those containers are identified as not meeting specification requirements. (Class II Priority Action)

Action on Recommendations I-90-05 and I-90-06:

In response to Recommendations I-90-05 and I-90-06, RSPA will formalize and strengthen its existing practices for dealing with situations in which it discovers that DOT specification or exemption packagings were not tested, were improperly tested, failed required tests, or otherwise do not meet the applicable regulatory or exemption requirements. Under these written procedures, the following actions will be taken. When noncomplying packages are discovered during inspections or investigations (sometimes following receipt of complaints), the Chief of the Enforcement Division promptly will confer with the Chief of the Technical Division and the Chief of the Exemptions and Approvals Division when an exemption or approval is involved. They will discuss the available information, obtain any necessary additional information, and determine which one or more of the following courses of action is appropriate:

1. If they determine that an "imminent hazard" exists (i.e., there is substantial likelihood that serious harm will occur prior to completion of any proceedings initiated to abate the violation), they will immediately request the apparent violator to take appropriate and timely corrective action (e.g., packaging recall or destruction). If such action is not undertaken expeditiously, they will request the Chief Counsel of RSPA to initiate appropriate action under Section 111 of the Hazardous Materials Transportation Act (HMTA). In addition, we will publish an appropriate notice concerning the defective packaging in the Federal Register if deemed necessary to protect the public. Finally, we will take additional actions as described in the next two paragraphs which are appropriate to a particular case.

2. If we determine that a lesser hazard exists, we will expeditiously request the apparent violator to take appropriate and timely corrective action. That action may include additional analysis and/or testing to

determine the nature and extent of the problem, packaging recall or retrofit, destruction, notification to distributors or other recipients of the packagings, and institution of corrective actions to prevent a recurrence of the problem. We also will consider publication of a Federal Register notice and, through the Chief Counsel's Office, will institute appropriate enforcement action. That enforcement action may include a compliance order under Section 109(a) of the HMTA or withdrawal of an exemption.

3. If we determine that no hazard or only a minimal hazard exists, we will, through the Chief Counsel's Office, institute appropriate civil penalty and/or compliance order enforcement action.

Recommendation I-90-07:

Require that attachments to cylinders be designed to reduce to a minimum the risk of puncturing other cylinders during transportation. (Class III, Longer Term Action)

Action on Recommendation I-90-07:

RSPA recognizes the need to have attachments to cylinders designed in such a manner that punctures during transportation are kept to a minimum. As part of our long-range rulemaking plan, we will address the problem through an NPRM which will propose standards for appurtenances on cylinders.

Recommendation I-90-08:

Require hazardous materials cargo to be secured in transportation with adequate cargo restraint systems to prevent ejection of cargo from vehicles. (Class III, Longer Term Action)

Action on Recommendation I-90-08:

The objective of this recommendation is to require vertical restraint systems on trucks to prevent cargo from being ejected during an accident. Lack of vertical restraints and sharp appurtenances on packagings contributed to the severity of the Collier County accident. The release of hazardous materials in this accident could have been prevented by elimination of either condition. Accident experience has not shown ejection and packaging failure to be a major problem. Considering the large variety of packaging types and the hundreds of millions of packages shipped each year, vertical restraint in accidents could be very costly and difficult to achieve, and create new operational problems and hazards. We conclude a vertical restraint requirement could not be promulgated as a regulation because its cost would far exceed its benefit. In contrast, we believe elimination of sharp appurtenances on packagings is a more cost-effective way to mitigate the consequences of an overturn accident. Therefore, as an alternative action, RSPA will publish an ANPRM to address sharp appurtenances on cylinders and other packagings as recommended in I-90-08.

Recommendation I-90-09:

Require independent inspections of new and reconditioned low pressure cylinders that are consistent with the present independent inspection requirements for high pressure cylinders. (Class III, Longer Term Action)

Action on Recommendation I-90-09:

We agree with the recommendation and will add this to our long-range rulemaking plan. An advance notice of proposed rulemaking will be developed which will provide sufficient information to address all the critical issues involved. Again, one of the major issues will be the measure of benefits to be gained relative to the added costs of independent inspections - in particular when such a requirement is imposed on small business entities.

Recommendation I-90-10:

Amend inspection and testing requirements for pressure cylinders to make the requirements clear and consistent. (Class III, Longer Term Action)

Action on Recommendation I-90-10:

A draft NPRM is being developed which will consolidate and clarify the specifications as well as testing and inspection requirements for high pressure cylinders as a follow-on to Docket HM-181. We will include the items requested in the recommendation and will plan in the long term to follow-up this action with a similar NPRM on low pressure cylinders.

Recommendation I-90-11:

Develop and implement requirements for improving the visibility and effectiveness of hazardous materials placards, considering the orientation of vehicles after accidents. (Class III, Longer Term Action)

Action on Recommendation I-90-11:

Although not specifically stated, the recommendation appears to be advocating the addition of two more placards (one on the top and one on the bottom) to vehicles along with the four that are required by current regulations (one on each side and each end). The current rule is very effective when it is followed and, in most cases when a truck overturns at least two placards are visible for first responders to see. The difficulty in identifying the placards on the truck in the Collier County accident appears to be more related to the type of vehicle involved (flat-bed trailer) and the emergency response training of the first responders. Installation of the placards on the top and bottom of trucks would not be a simple solution since there may be substantial safety and cost effects. Placing additional placards in these locations would expose transportation workers to conditions that result in injuries from bumps, slips and falls. The risk associated with placement, cleaning and/or removal of tens-of-thousands of placards a day far outweighs the benefits to be gained from an additional communication that would be helpful only on rare occasions. Further, such a proposal would result in additional costs for placards and for cleaning and

maintenance. RSPA concludes that this proposal is not cost-beneficial and is counterproductive to safety since it would likely result in a net gain in injuries.

Recommendation I-90-12:

Require a means of identification for cylinders and other comparable containers to distinguish those that contain significant quantities of hazardous materials from those that are empty (except for hazardous materials residue), when in transportation. (Class III, Longer Term Action)

Action on Recommendation I-90-12:

Developing a procedure to distinguish empty containers from others in a hazardous materials accident involves operational and cost considerations that could present serious problems to both shippers and users of hazardous materials. To put the size, cost, and complexity of the problem in perspective, there is an estimated 200 million cylinders in use in the United States. The application and removal of a level of contents marking on a cylinder each time it is filled and emptied would be very costly for private industry to implement, and difficult for the Federal government to enforce. Because of the wide variety of operating factors to be considered, a marking procedure that may be efficient and cost-effective for one company may be completely impractical for another. Forcing this type of operational requirement on shippers and users by regulation would be counterproductive to the Federal role of promoting safety in a reasonable and cost-effective manner, particularly in regard to the limited benefits to be gained from display of fill level markings. For example, the size of marking 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 of an accident. RSPA concludes that fill level markings would provide limited benefits and large operational costs; therefore, a regulation to require them should not be promulgated.

Because of the constructive actions proposed, we request that Recommendations I-90-05, 06, 07, 09, and 10 be classified as "Open-Acceptable Action". RSPA concludes that Recommendations I-90-08, 11 and 12 should not be promulgated as regulation because their costs would substantially exceed their limited benefit. Accordingly, we request that recommendations I-09-08, 11 and 12 be classified "Closed-Acceptable Action".