

LOG I-52

**NATIONAL TRANSPORTATION SAFETY BOARD**  
**WASHINGTON, D.C.**

ISSUED: December 1, 1981

Forwarded to:

Honorable Andrew L. Lewis  
Secretary  
U.S. Department of Transportation  
400 Seventh Street, S.W.  
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

I-81-11 through -16

Since 1969, the Safety Board has made more than 70 recommendations to the Department of Transportation (DOT) to improve various aspects of the safety regulatory programs for the transportation of hazardous materials conducted by the DOT Administrations. While some of the recommended actions have been implemented, corrective actions for other identified problems have been delayed — sometimes for years. The delayed correction of identified safety problems results in needless additional losses, both economic and human, to shippers, carriers, employees in the transportation system, emergency response personnel, and the public.

The Safety Board reviewed hazardous materials legislation and regulations promulgated by the Federal government, analyzed the DOT hazardous materials safety programs, reports on evaluations of DOT hazardous materials safety programs, and reviewed Safety Board reports on hazardous materials accidents and its recommendations for corrective actions to determine the reasons for delays by the DOT in implementing corrective safety improvements. As a result of this review, the Safety Board has identified needed changes in the DOT's hazardous materials regulatory programs to bring about more timely correction of safety hazards and thereby reduce losses of life, injury, and property damage. 1/

In order to bring about a cohesive, effective hazardous materials transportation regulatory safety program, the DOT must place within one DOT component the responsibility for the planning of an integrated Department-wide program to achieve DOT's legislative mandates and provide it with sufficient authority for assuring that the program objectives are achieved by each DOT Administration. While the need for changes to modal hazardous materials regulatory programs now may be identified by the DOT's central focus for hazardous materials regulatory activities within the Research and Special Programs Administration (RSPA), the action to implement the identified changes continues to involve an independent decision of the modal administrations. The Safety Board believes that a Department-wide program is vital in order to achieve (1) the most effective use of existing DOT resources, (2) development of integrated inspection and enforcement programs which concentrate

1/ For more information read Safety Report--"Status of Department of Transportation's Hazardous Materials Regulatory Program" (NTSB-SR-81-2).

DOT efforts upon high-priority safety problems, (3) application of consistent safety analysis techniques in all administrations, (4) the congressionally-mandated "quantity and form" basis for hazardous materials regulations, (5) objective evaluations of the effectiveness of safety improvement programs for which the Congress made provisions within the Hazardous Materials Transportation Act of 1974 (HMTA), and (6) effective coordination of industry efforts to reduce the potential for harm when hazardous materials are released during transportation accidents.

During our review of the administration of the exemption process, we found that applicants for exemptions are not required to perform safety analyses when evaluating the potential effects of requested changes. However, the regulations require applicants to provide assessments which realistically can be accomplished only by the application of safety analysis techniques. While to some extent the exemption applications are evaluated by DOT staff, the Safety Board believes that applicants for exemptions should perform the required evaluations and submit documented safety analyses to support their findings. Such action would take advantage of industry's greater resources for performing the analyses now required by regulation and would make more effective use of the DOT's small hazardous materials staff.

Additionally, our review of the hazardous materials transportation safety regulatory programs found that the current body of regulations were developed over many years for individual modes of transportation in an uncoordinated manner and without the benefit of any analyses to determine their cumulative effects upon transportation safety. In 1976, the DOT consolidated these essentially industry-developed standards without examining their effect upon safety and without incorporating the new regulatory development framework mandated by the Congress in the HMTA. The resulting large, complex body of requirements may add substantially to the costs for the transportation of hazardous materials and, because the requirements are difficult for the industry and the DOT to administer, can result in noncomplying shipments being offered for transportation.

The Safety Board believes that a review of the current regulations, using safety analyses and the criteria of "quantities and forms" of materials which may pose unreasonable public risks if released during transportation, would identify (1) shipments which should no longer be regulated, (2) unnecessary requirements for some shipments, and (3) shipments which continue to pose unreasonable risks even when DOT requirements are met.

Therefore, the National Transportation Safety Board recommends that the Secretary of Transportation:

Charge a single DOT agency with the responsibility for planning and administering an integrated, effective department-wide hazardous materials transportation safety program and provide it with sufficient authority to assure that the program objectives are achieved by each DOT Administration. (Class II, Priority Action) (I-81-11)

Require the development of safety analysis guidelines and standards appropriate for identifying unreasonable transportation safety risks and require their use by all DOT Administrations when analyzing potential safety problems and evaluating the effectiveness of hazardous materials regulations. (Class II, Priority Action) (I-81-12)

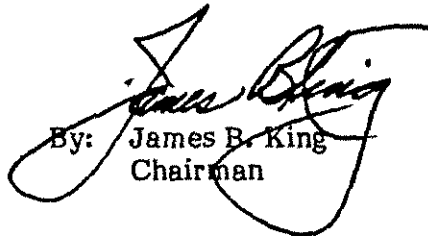
Require applicants for exemptions to submit, as part of their justification for the exemption, applicable safety analyses performed in accordance with DOT guidelines and standards. (Class II, Priority Action) (I-81-13)

Require that all new proposals for hazardous materials regulations be based upon the congressionally-mandated "quantity and form" framework to ensure that the protective measures required for each quantity and form of a material reduce the hazards to a level such that the public is exposed to no unreasonable risks. (Class II, Priority Action) (I-81-14)

Analyze existing hazardous materials regulations for each mode of transportation and eliminate requirements for material shipments in quantities and forms which do not pose unreasonable risks. (Class II, Priority Action) (I-81-15)

Implement and complete within 5 years a program to perform safety analysis evaluations of the existing requirements for shipments in quantities and forms which are determined to pose unreasonable risks and correct the safety deficiencies identified by the evaluations. (Class III, Longer Term Action) (I-81-16)

KING, Chairman, DRIVER, Vice Chairman, and BURSLEY, Member, concurred in these recommendations. McADAMS and GOLDMAN, Members, did not participate.

  
By: James B. King  
Chairman