

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: June 29, 1978

Forwarded to:

Honorable Brock Adams  
Secretary  
Department of Transportation  
400 Seventh Street, S.W.  
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

I-78-9 through -12 and R-78-32 and -33

On April 6, 1978, the National Transportation Safety Board concluded a 3-day en banc hearing on railroad derailments and the carriage of hazardous materials. <sup>1/</sup> The hearing was prompted by the increasing number of derailments nationwide, especially those involving the release of hazardous materials from DOT 112A/114A "jumbo" tank cars. Forty-nine witnesses from the railroad industry, tank car builders and operators, shippers, State and local officials, firefighters, labor representatives, and the public testified at the hearing.

The evidence indicated that DOT 112A/114A tank cars can and should be made safer, and that headshields, shelf couplers, and thermal protection are needed. On April 24, 1978, the Safety Board issued safety recommendations R-78-19 through -22 on these matters.

After fully analyzing the testimony, the Safety Board concludes that the Federal leadership, direction, and funding support are needed to pull together many varied existing emergency response activities into a nationwide emergency response network for handling hazardous materials emergencies. Most State and local government agencies are not prepared to handle massive hazardous materials releases without on-line technical advice in the first few critical minutes after an accident. The current Federal regulatory system of tank car placards, waybills, a booklet, and reliance on industries' notification systems and technical support have not been successful. If a fully operational hazardous materials emergency response system is not developed and implemented, then future railroad catastrophes will continue to result in the same deficiencies that have placed emergency response personnel and the public at risk. The Safety Board believes that the

<sup>1/</sup> For more information read, "Analysis of Proceedings of the National Transportation Safety Board into Derailments and Hazardous Materials, April 6-8, 1978," (NTSB-SEE-78-2).

Department of Transportation (DOT) must assume a leadership role in setting up an effective response system. Efforts by States in developing their own hazardous materials emergency handling capabilities should be explored by the DOT and assistance provided to insure an adequate level of safety.

Several witnesses at the hearing testified to the ferocity of hazardous materials releases in train derailments and indicated that a majority of firefighting companies are not prepared to handle such releases. The Safety Board believes that the DOT should set minimum standards or guidelines for hazardous materials response teams at the National, regional, or State level.

Additional evidence from the hearing indicated concern over the number of hazardous materials substances not yet regulated by DOT. Also, it was indicated that the DOT and the Environmental Protection Agency should work closely in developing their regulations to insure that environmentally hazardous materials are adequately incorporated into DOT hazardous materials regulations.

Further evidence at the hearing indicated that the best available safety analysis method technology is not being adequately utilized. Such technology must be used before Federal regulatory action for hazardous materials is taken. By not using technologies when approving DOT 112A/114A tank cars, high safety risks were imposed on the public. The Safety Board believes that the DOT should establish a safety analysis plan to assure that the best available technology is utilized in its regulatory procedures.

Members of the public testified that they were concerned that hazardous materials are being routed along poorly maintained track. Since the number of derailments has increased and the number of hazardous materials accidents and incidents has increased, mechanisms for priority funding of track improvements with either Federal or private monies in densely populated urban corridors through which substantial amounts of hazardous materials are transported appears necessary.

Additionally, research should be undertaken to determine the safest positioning of tank cars in a train and the effects of heavier trains on the track networks.

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

Develop and implement a safety plan for utilizing the best available safety analysis technology to determine regulatory actions needed to adequately control hazardous materials

transportation risks. (Class II, Priority Action (I-78-9))

Supply the leadership required to establish an adequate nationwide hazardous materials emergency response network able to meet all facets of hazardous materials emergency response needs, using existing State and private resources whenever possible. (Class II, Priority Action) (I-78-10)

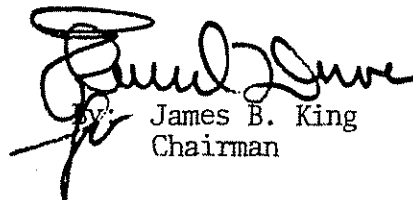
Encourage States to upgrade hazardous materials emergency handling capabilities, including State or regional one-call notification systems that will serve the needs of local public safety officials in significant hazardous materials transportation emergencies; and support development of guidelines by which States can evaluate their programs. (Class II, Priority Action) (I-78-11)

Incorporate requirements imposed on shippers and carriers by Environmental Protection Agency Hazardous Materials regulations in 49 CFR 100-179, to assure that these regulations are complete and do not contain contradictions or gaps. (Class II, Priority Action) (I-78-12)

Review and develop necessary regulations or funding mechanisms for a hazardous materials track improvement priority system to insure adequate protection of the public in urban corridors against accident risks. (Class III, Longer Term Action) (R-78-32)

Provide sufficient funding for research that will assess the safety effects of heavier cars and trains on present track facilities, and safest positioning of hazardous materials tank cars and others in train consists, and issue regulations resulting from the findings of this research. (Class III, Longer Term Action) (R-78-33)

KING, Chairman, McADAMS, HOGUE, and DRIVER, Members, concurred in the above recommendations.

  
by: James B. King  
Chairman