

R-431A

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: January 28, 1983

Forwarded to:

Honorable Howard Dugoff
Administrator
Research and Special Programs
Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

R-83-5 and -6

About 9:50 p.m., P.s.t., on Thursday, January 7, 1982, Southern Pacific Transportation Company (SP) freight train No. 01-BSMFF-05, derailed 14 cars at Thermal, California, while traveling about 57 miles per hour on the tangent single main track. Four transients riding on the train were seriously injured, a fifth transient died as a result of injuries. No crewmembers were injured as a result of the accident. The presence of radioactive material in the derailed Trailer-On-Flat-Car train was discovered about 1 hour after the accident occurred, resulting in the handling of the emergency response effort as a serious radiological emergency. Contributing to misdirected emergency response efforts was erroneous and conflicting information concerning hazardous material on the train. Accurate information regarding the precise nature of the radioactive material shipment was not available at the accident site until about 5 hours after the derailment occurred; at that time, radiological emergency procedures were terminated. Damage was estimated to be about \$1,015,350. 1/

The train identification symbol "BSMFF" contributed to the traincrew's initial belief that their train was not carrying hazardous materials. Since the SP normally identifies trains carrying certain hazardous materials, such as radioactive material, with a "K" designation, the crew assumed that train No. 01-BSMFF-05 did not contain hazardous materials. In addition, the profile for train No. 01-BSMFF-05 did not indicate the presence of hazardous materials on the train. Since train No. 01-BSMFF-05 was a through train with no scheduled stops, pickups, or setouts, the conductor did not review the individual waybills, and consequently did not discover the presence of the hazardous materials until after the accident when he did look at the waybills to apprise the SP dispatcher of the damages. Because the engineer did not have any waybills on the locomotive, he and the head-end crew relied on the erroneous profile on the train consist to operate the train.

When the traincrew relayed the train profile information to the first arriving emergency personnel, the emergency personnel believed that a serious hazardous material emergency did not exist. However, about 1 hour later, contradictory information from an erroneous waybill resulted in an over-reaction to the situation that actually existed. The

1/ For more detailed information, see Railroad Accident Report--"Derailment of Southern Pacific Transportation Company Train No. 01-BSMFF-05, Carrying Radioactive Material, at Thermal, California, January 7, 1982" (NTSB-RAR-83-1).

response personnel were thus led to believe that a serious radiological emergency was at hand, with the presence of a large amount of fissionable material to which the emergency personnel might have been exposed. The Safety Board believes the emergency response forces were prompt, efficient, and well organized in their efforts. These efforts were, however, needlessly complicated by erroneous and contradictory information being conveyed to them about the hazardous material.

The shipping forms presented to SP and consequently the waybills carried on the train did not reflect accurate information regarding the radioactive material (RAM) shipment as contained in the originating shipping order. To determine the exact nature of the RAM shipment, SP personnel were required to backtrack through a series of shipping papers before they were able to contact the originating shipper who had the technical information that was necessary to properly assess the emergency and necessary response action. The Safety Board believes that although the RAM shipment in this accident posed no significant hazard to the involved personnel, improvements are needed in the methods of disseminating vital information concerning hazardous materials shipments which is contained on the originating shipping orders. The Safety Board is concerned that derailments may occur in which erroneous waybill information could fail to disclose the presence of extremely hazardous material and that as a result, proper emergency procedures might not be implemented. This is especially true for Trailer-On-Flat-Car/Container-On-Flat-Car (TOFC/COFC) shipments, for which a series of shipping documents may be issued. Emergency personnel need to know the precise nature of hazardous materials shipments in order to properly respond to the situation. Had the originating shipper's documentation of the hazardous material accompanied all successive documents, the nature of the shipment and the appropriate emergency procedures to follow would have been known to responding personnel more promptly. This could be accomplished by requiring that the originating shipper's documentation accompany all successive documents for a hazardous material which may be shipped via a TOFC/COFC shipment.

As a result of its investigation of this accident, the National Transportation Safety Board recommends that the Research and Special Programs Administration:

Require that all shipping papers accompanying hazardous materials in Trailer-On-Flat-Car or Container-On-Flat-Car shipments identify the originating shipper of the hazardous materials in order to facilitate access to technical emergency response information in the event of a hazardous material incident. (Class II, Priority Action) (R-83-5)

In conjunction with the Association of American Railroads, the American Trucking Associations, Inc., the Federal Highway Administration, and the Federal Railroad Administration, develop, validate, and urge implementation of a model plan for use by railroads and motor carriers to make certain that waybills for Trailer-On-Flat-Car and Container-On-Flat-Car shipments containing hazardous materials include accurate information regarding the contents of the trailers and/or containers. (Class II, Priority Action) (R-83-6)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and McADAMS, BURSLEY, and ENGEN, Members, concurred in these recommendations.

By: Jim Burnett
Chairman

