

# National Transportation Safety Board

Washington, D. C. 20594

Safety Recommendation

Log R-6009D

Date: October 24, 1988

In reply refer to: R-88-66 and -67

Mr. Shiso Kondo  
President and Chief Executive Officer  
Mitsui & Company (USA) Inc.  
200 Park Avenue  
New York, New York 10166

On September 8, 1987, a New Orleans Terminal (NOT) crew moved six tank cars of butadiene from the NOT's Oliver Yard in New Orleans, Louisiana, and at 7:35 p.m. placed them on track 3 of the CSX Transportation's (CSXT) Terminal Junction Interchange Yard (interchange yard) for delivery to the CSXT. About 1:50 a.m. on September 9, 1987, butadiene leaking from the bottom manway of a tank car was ignited and the resulting flames rising about 100 feet into the air engulfed both bridge spans of Interstate 10. The fire receded to the leaking tank car where it burned beneath the tank car until 1:55 p.m. on September 10, 1987. During the emergency, more than 200 city blocks were evacuated affecting 800 to 1,000 residents.<sup>1</sup>

Shippers and persons performing loading functions for shippers normally do not maintain technical engineering staff to determine if packaging, especially cargo tanks and tank cars, meet Department of Transportation (DOT) construction specification requirements. Instead, they rely on markings on packagings and on the representations of persons offering packagings to determine if packagings meet DOT requirements. The DOT, in apparent recognition of shipper reliance on persons providing packagings, prohibits anyone from representing, marking, or certifying a packaging as meeting DOT requirements unless the packaging is manufactured, fabricated, marked, maintained, reconditioned, repaired, or retested in accordance with DOT requirements (Title 49 Code of Federal Regulations 172.2(c)).

While several parties had opportunities to inspect tank car GATX 55996, the tank car from which the butadiene leaked, and to determine if the tank car met DOT requirements before it was filled with butadiene at Goodhope, Louisiana, only the tank car owner(s) could be expected realistically to have had the opportunity to determine that the tank car it had purchased as a DOT specification 114J340W tank

<sup>1</sup>For more detailed information, read Hazardous Materials/Railroad Accident Report--Butadiene Release and Fire from GATX 55996 at the CSX Terminal Junction Interchange, New Orleans, Louisiana, September 8, 1987 (NTSB/HZM-88/01).

car did, in fact, meet the DOT specification requirements. By failing to compare the tank car it purchased to the tank car manufacturer's drawings of the tank car, General American Transportation Corporation (GATC) was unable to identify discrepancies in the manway assembly and gasket specifications before providing it to Mitsui for use in the transportation of hazardous materials.

Instead of inspecting the tank car to ensure that it met all specification requirements, GATC contractually shifted inspection responsibility to the lessee, relied on the lessee to identify any safety deficiencies after it received the tank car, and required the lessee to report any defect promptly to GATC. However, neither lessees nor persons performing loading operations for shippers have the capability to compare tank car construction drawings and material specifications to tank cars provided them by lessors. Instead, they must rely on tank car markings and representations made by the lessors. Tank car users must rely on tank car markings and representations that tank cars meet DOT specification requirements. It is apparent, due to the absence of any Association of American Railroads (AAR) requirements, that tank car owners, in particular North American Tank Car Corporation, Phillips 66, and GATC, need to ensure that all tank cars are inspected thoroughly and determined to meet DOT specification and AAR certification requirements before providing the tank cars to lessees as DOT specification tank cars. Had GATC done so, the fact that the bottom manway did not comply with the AAR-approved drawing would have been discovered and GATC then would not have purchased the bottom manway tank cars from Phillips 66. Also, Phillips 66 then would have known of the noncomplying tank cars and it would have had to keep them out of service until appropriate modifications were made.

Even though GATC had the primary responsibility to ensure that tank car GATX 55996 met all DOT specification requirements before representing it to Mitsui as a DOT specification tank car, Mitsui also should have conducted as a minimum a superficial examination of its leased tank cars before offering them for transportation. By failing to inspect the tank car, Mitsui missed an opportunity to identify and correct any visible safety deficiencies before it made the tank car available for the shipment of butadiene. However, unless the manway assembly gasket was noticeably displaced, Mitsui probably would not have identified any problem with the tank car during a visual inspection. Consequently, this incident might not have been prevented even if Mitsui had visually inspected the tank car. Nevertheless, because of the serious consequences that can result when tank cars fail to contain hazardous materials properly during transportation, Mitsui should take immediate action to ensure that all its tank cars are sufficiently inspected to detect any visible safety deficiencies and to correct any deficiencies found before the tank cars are permitted to transport hazardous materials.

Mitsui's waybill contained no information for contacting the shipper for product-specific information needed by emergency responders for determining the toxic threats to public safety and the threats posed should the butadiene polymerize. Had an emergency telephone number for a person with detailed knowledge of the hazardous characteristics of the butadiene been on the waybill, essential information useful to emergency responders could have been obtained promptly.

Therefore, the National Transportation Safety Board recommends that the Mitsui & Company (USA) Inc.:

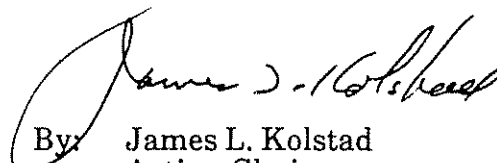
Implement procedures to ensure that all tank cars are inspected to identify any visible safety deficiencies and that any deficiencies are corrected before the tank cars are permitted to transport hazardous materials. (Class II, Priority Action) (R-88-66)

Enter on its shipping papers for hazardous materials a 24-hour telephone number where detailed knowledge of the hazardous characteristics of the materials being shipped can be obtained. (Class II, Priority Action) (R-88-67)

Also as a result of its investigation, the Safety Board issued Safety Recommendations I-88-3 and -4 and R-88-55 to the city of New Orleans, R-88-56 and -57 to the Norfolk Southern, I-88-5 to the New Orleans Public Service, Inc., R-88-58 through -64 to the Federal Railroad Administration, R-88-65 to the General American Transportation Corporation, R-88-68 to the GATX Terminals Corporation, I-88-6 to the Research and Special Programs Administration, R-88-69 to the National League of Cities, and R-88-70 to the National Governors' Association.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "... to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter. Please refer to Safety Recommendations R-88-66 and -67 in your reply.

KOLSTAD, Acting Chairman, and BURNETT, NALL, and DICKINSON, Members, concurred in these recommendations. LAUBER, Member, did not participate.

  
By: James L. Kolstad  
Acting Chairman