



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: October 15, 1991

In reply refer to: H-91-32 and -33

Honorable Thomas D. Larson
Administrator
Federal Highway Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

About 3 a.m. Pacific standard time on February 13, 1991, a tractor-semitrailer (cargo tank) overturned as the vehicle was traveling on a main urban roadway in Carmichael, California.¹ At the time of the accident, the cargo tank contained about 8,800 gallons of automotive gasoline that was being transported by intrastate delivery to a service station. Gasoline from the cargo tank spilled into a nearby drainage ditch and entered the underground drainage system.² Gasoline vapors ignited from an undetermined ignition source, and the fire flashed back and engulfed the overturned cargo tank. In addition to the total loss of the tank truck, its cargo, and two parked cars, four homes and their contents were destroyed or heavily damaged by fire, and the residents from a 2-mile-square area were evacuated. Total property damage and cleanup costs were estimated at nearly \$1 million. There were three minor injuries.

When California Highway Patrol officers arrived on the accident scene, they did not request the driver to submit a urine specimen for toxicological tests. According to the officers, they did not have reasonable cause to require the driver to provide a specimen because he appeared coherent, alert, and did not smell of alcohol. When the driver was taken to the hospital for treatment of minor injuries, no blood or urine specimens were taken by hospital staff to perform any diagnostic tests.

Because the driver had only made intrastate trips within California, he was not subject to the Federal regulations in 49 CFR Part 391, Subpart H (issued by the Federal Highway Administration, FHWA), relating to postaccident testing for controlled substances. However, at the time of the accident, a court injunction against the Federal drug testing program was in

¹ The accident report contains more detailed information: "Overturn of a Tractor-Semitrailer (Cargo Tank) With the Release of Automotive Gasoline and Fire, Carmichael, California, February 13, 1991," Hazardous Materials Accident Report NTSB/HZM-91/01.

² Based on its investigation, the Safety Board concluded that the gasoline was released through an opening in the manhole cover for the front compartment, most likely after a liquid-level sensor was dislodged by a dynamic surge of the gasoline cargo.

effect. Under the terms of the injunction, postaccident testing was permitted only when there was a reasonable suspicion of drug usage, or reasonable cause to believe a driver had been operating a vehicle while under the influence of drugs, or reasonable cause to believe the driver was at fault in the accident and drug usage may have been a factor. The Safety Board believes that even though a driver may not exhibit visible indications of drug or alcohol impairment after an accident, the absence of alcohol and drug use cannot be conclusively determined without testing.

In April 1991, after the accident, the court ruled that the FHWA's postaccident, random, biennial, and pre-employment drug testing regulations were constitutional. On August 16, 1991, the FHWA published a notice to reestablish the requirements for postaccident toxicological testing in reportable interstate accidents. Interstate carriers that employed 50 or more drivers as of December 1989, who were subject to testing, must implement programs for random and postaccident testing by November 14, 1991. All other interstate carriers must implement their programs by January 1, 1992.

Title 49 CFR 391, Subpart H, prescribes minimum standards to detect and deter the use of specified drugs but does not include alcohol. This subpart applies to "motor carriers and persons" who operate a commercial motor vehicle in interstate commerce and who are subject to the driver qualification requirements of 49 CFR Part 391. Subpart H was last amended in 1988; interpretations and clarifications were issued in 1990.³ In the 1990 clarifications, the FHWA stated that the drug testing program applied to drivers who operate a commercial vehicle in "interstate commerce, i.e., the driver operates the vehicle across a state line, or in some cases, a single-state movement which is the continuation of a through interstate movement." The FHWA further stated in the notice of proposed rulemaking that intrastate drivers were not required to be tested under Subpart H. The FHWA also stated, however, that it would investigate the inclusion of intrastate drivers in a separate rulemaking.

Because intrastate transportation of hazardous materials may often involve short trips and local deliveries through residential or congested commercial areas, the risk to public safety may be greater than the interstate movement of these materials along interstate or major highways. The FHWA has previously recognized the unique hazards of transporting hazardous materials, and has consequently issued regulations that apply not only to interstate transportation but also to intrastate transportation. For example, under 49 CFR 387.9, the FHWA prescribes minimum levels of financial responsibility for the intrastate transportation of hazardous wastes, hazardous materials, and hazardous substances that are carried in bulk. Section 49 CFR 391.2(d) exempts certain intracity zone drivers from meeting age and certain physical requirements; this section, however, does not exempt intracity zone drivers who operate a vehicle that is used in the transportation of hazardous materials and requires placarding under the

³ Federal Register, Vol. 53, No. 224, dated November 21, 1988, page 47134; and Federal Register, Vol. 55, No. 22, dated February 1, 1990, page 3546.

Hazardous Materials Transportation Safety Act (49 U.S.C. App. 1801-1813). The FHWA has further recognized these risks by requiring special endorsements on the commercial drivers license for hazardous materials and tank trucks.

Because of the unique and high risks to the public posed by a release of hazardous materials, the Safety Board believes that drivers of all vehicles transporting hazardous materials, particularly in bulk shipments, have an added responsibility to operate these vehicles in a safe manner. The Safety Board concludes that drivers of such vehicles should, therefore, be subject to mandatory postaccident testing for alcohol or drug impairment regardless of whether the shipment is being made by intrastate or interstate transportation. While the Safety Board believes that the FHWA should proceed with rulemaking that extends the drug testing requirements to intrastate drivers, the Board remains concerned that testing for alcohol will continue to be excluded from FHWA's testing program. The Safety Board believes that FHWA should, as a minimum, require postaccident toxicological testing for alcohol and drug impairment of commercial vehicle operators involved with the intrastate transportation of hazardous materials in bulk.

The Safety Board's accident investigation concluded, in part, that a lapse of attention, for undetermined reasons, by the driver probably led to the operation of his truck at an excessive speed leading to its overturn. One method to overcome inattention is to regularly emphasize the conditions that can lead to and the hazards associated with a loss of stability and eventual rollover. In June 1980, the Bureau of Motor Carrier Safety of the FHWA issued an "On-Guard" bulletin that warned drivers about shifting liquid in partially loaded cargo tanks.⁴

Calzona Tankways, Inc., owner and operator of the tank truck involved in the accident, has indicated that it provides to its drivers flyers about safety practices, such as defensive driving. The Safety Board believes this is a good policy; however, the Board has also urged the carrier, as a result of this accident, to provide regular reminders to its drivers about the loss of stability and rollover through additional means, such as the carrier's safety meetings. The Safety Board is concerned that drivers of tank trucks for other carriers may also experience lapses of attention that potentially could lead to a rollover. The Safety Board therefore believes that the FHWA should issue periodic "On-Guard" bulletins to remind all carriers and drivers to be attentive and aware of the conditions that can lead to a loss of stability and rollover in a tank truck.

⁴ The bulletin was issued in response to Safety Recommendation H-77-6, which resulted from the Safety Board's investigation of a May 11, 1976, accident in Houston, Texas. In its investigation, the Board determined that excessive speed of the vehicle combined with a lateral surge of the liquid cargo in the tank (anhydrous ammonia) caused the vehicle to overturn.

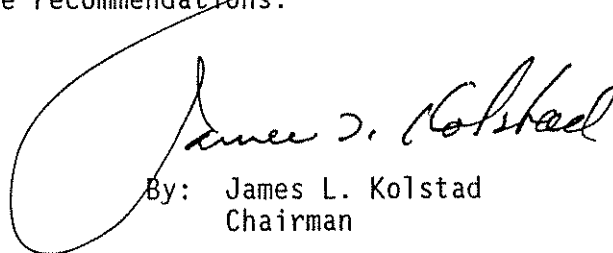
Therefore, as a result of its investigation, the National Transportation Safety Board recommends that the Federal Highway Administration:

Require postaccident toxicological testing for alcohol and drug impairment of commercial vehicle operators involved with the intrastate transportation of hazardous materials in bulk. (Class II, Priority Action) (H-91-32)

Issue periodic "On-Guard" bulletins to remind all carriers and drivers to be attentive and aware of the conditions that can lead to a loss of stability and rollover in a tank truck. (Class II, Priority Action) (H-91-33)

Also as a result of its investigation, the Safety Board issued recommendations to the Research and Special Programs Administration and the National Highway Traffic Safety Administration of the U.S. Department of Transportation; the State of California; to the other States and U.S. Territories; and to Calzona Tankways, Inc.

Chairman KOLSTAD, Vice Chairman COUGHLIN, and Members LAUBER, HART, and HAMMERSCHMIDT concurred in these recommendations.



By: James L. Kolstad
Chairman