



## National Transportation Safety Board

Washington, D.C. 20594

MAR 19 2010

Office of the Chairman

The Honorable Cynthia L. Quarterman  
Administrator  
Pipeline and Hazardous Materials  
Safety Administration  
400 Seventh Street, SW  
Washington, DC 20590

Dear Ms. Quarterman:

Thank you for the May 19, 2009, response to the National Transportation Safety Board (NTSB) regarding Safety Recommendation R-89-53, stated below. This safety recommendation was issued to the Research and Special Programs Administration (now the Pipeline and Hazardous Materials Safety Administration [PHMSA]) as a result of the NTSB investigation of the head-on collision of two Iowa Interstate Railroad Ltd. freight trains and the subsequent release of hazardous materials near Altoona, Iowa, on July 30, 1988.

### R-89-53

Assist and cooperate with the Federal Railroad Administration [FRA] in amending 49 [*Code of Federal Regulations*] CFR Part 179 to require that closure fittings on hazardous materials rail tanks be designed to maintain their integrity in accidents that are typically survivable by the rail tank.

The NTSB's intention in issuing Safety Recommendation R-89-53 and its companion recommendation, R-89-48 to the FRA, was to ensure that closure fittings be designed to maintain their integrity in accidents that are typically survivable by the rail tank. In the 20 years since the recommendation was issued, this endeavor has evolved from improving the integrity of the closure fittings into protecting the fittings from impact damage.

In its most current response to this recommendation, PHMSA cites its final rule, *Improving the Safety of Railroad Tank Car Transportation of Hazardous Materials*, published in the *Federal Register* on January 13, 2009. PHMSA points out that, under the rule, each tank car built after March 16, 2009, for the transportation of hazardous materials that are poisonous by inhalation (PIH) must be equipped with a protection system for top-mounted closure fittings that can sustain impacts of 9 mph, or as an alternative, with a system that prevents the release of product from any top fitting that would be sheared off in an accident. The requirement to enclose the top-mounted fittings within a protective housing to minimize impact damage to these fittings is a significant safety improvement. However, this requirement will not prevent leaks from fittings that cannot retain their integrity when there is no impact damage. Such were the circumstances of the Altoona accident. Furthermore, the January 13, 2009, final rule addresses

only tank cars that transport PIH materials and not the rest of the tank car fleet, including Department of Transportation 111A tank cars that were used in the Altoona accident and are frequently used to transport hazardous materials.

On April 1, 2008, the NTSB wrote to PHMSA about the report titled *Survivability of Railroad Tank Car Top Fittings in Rollover Scenario Derailments* (DOT/FRA/ORD-06/11), recommending that the FRA consider developing specifications for improving the survivability of top fittings on non-pressurized tank cars. The NTSB would expect that any such standards would also address integrity issues, including instances in which top fittings do not sustain impact damage. The NTSB is also aware that while PHMSA, the FRA, and the Association of American Railroads have been jointly working to develop ongoing consensus-based industry standards for the protection of top fittings on all tank cars, the three organizations have to date been unable to reach agreement.

Nearly 20 years after the NTSB issued Safety Recommendation R-89-53, rulemaking addressing the integrity of closure fittings on tank cars as noted in the Altoona accident still has not been completed. Consequently, Safety Recommendation R-89-53 is classified "Closed—Unacceptable Action."

Sincerely,



Deborah A.P. Hersman  
Chairman

cc: Ms. Linda Lawson, Director  
Office of Safety, Energy, and Environment  
Office of Transportation Policy