U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

SEP 28 2004

The Honorable Ellen Engleman Conners
Chairman
National Transportation Safety Board
Washington, DC 20594

Dear Chairman Engleman Conners:

Thank you for your July 01, 2004 letter concerning safety recommendation H-04-23 issued to the Research and Special Programs Administration (RSPA). The recommendation was issued following the National Transportation Safety Board's (NTSB) investigation of an incident involving a nurse tank near Calamus, Iowa, on April 15, 2003. In the incident, a non-specification cargo tank used exclusively for agricultural purposes split open after being filled with anhydrous ammonia. About 1,300 gallons of anhydrous ammonia escaped, seriously injuring two nurse tank loaders, one of whom died from his injuries. The recommendation states:

H-04-23

Require periodic nondestructive testing to be conducted on nurse tanks to identify material flaws that could develop and grow during a tank's service and result in tank failure.

As your letter notes, under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180), non-specification cargo tanks, including nurse tanks, must be manufactured in accordance with the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* and marked accordingly. In addition, a nurse tank must: (1) have a minimum design pressure of 250 psig; (2) be equipped with safety relief valves that conform to requirements in the Compressed Gas Association's Pamphlet S1.2; (3) have a capacity of 3,000 gallons or less; (4) be loaded to a filling density no greater than 56 percent; and (5) be securely mounted on a farm wagon (see § 173.315(m) of the HMR).

We agree that because periodic inspection and testing of nurse tanks is not currently required under the HMR, defects that could result in tank leaks or ruptures may not be detected. However, before we determine an appropriate course of action, we need to evaluate the extent and severity of any potential safety problems. To this end, we intend to examine the Hazardous Materials Information System and other data to develop information on incidents involving nurse tanks. In addition, since it appears that the

welding problem of concern to NTSB is more likely to occur in nurse tanks manufactured prior to 1985, we need to ascertain how many of these nurse tanks are still in service. Once we have assessed the safety issue to be addressed, we will then consider a range of alternatives, including periodic inspections or testing, to address the problem and the costs and benefits of those alternatives.

We request that you classify recommendation H-04-23 as "Open-Acceptable Alternative Action." We thank you for consideration of our request.

If you have any questions, please contact me, or James Wiggins, Director, Office of Policy and Program Support, at (202) 366-4831.

Sincerely,

Samuel G. Bonasso
Deputy Administrator