

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

FOR RELEASE: 6:30 A.M., E.D.S.T., APRIL 24, 1975

ISSUED: April 24, 1975

Forwarded to:

Honorable Asaph H. Hall
Acting Administrator
Federal Railroad Administration
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

R-75-16

The National Transportation Safety Board is investigating the explosion of a tank carload of monomethylamine nitrate solution at Wenatchee, Washington, on August 6, 1974. Preliminary evidence indicates that dangerous chemical reactions and explosions are possible when certain materials, capable of detonation, are being transported in tank cars. The Safety Board believes that prompt action is necessary.

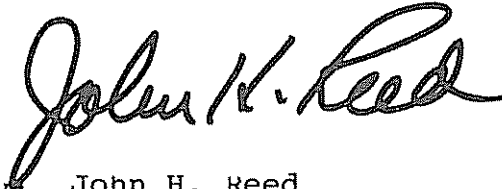
The shipper of the monomethylamine nitrate solution (also called PRM), a large chemical manufacturer, reported that a "low-order" or "burning-type" reaction could be initiated in three ways:

- "(1) a coupler override which penetrates the tank of PRM,
- (2) cavitation followed by recompression within the PRM solution,
- (3) compression of an air bubble entrained in the liquid or entrapped in the air space at the top of the tank."

After the reaction begins, it could escalate and the entire lading detonate.

The explosion at Wenatchee, is the third major explosion in which a bulk tank car shipment of a liquid, capable of detonation but not classified or handled as an explosive, did explode. The others, which involved nitromethane, occurred at Buffalo, New York, and Pulaski, Illinois, in 1958.

Personnel from our Bureau of Surface Transportation Safety are available if further information or assistance is desired.

A handwritten signature in cursive script that reads "John H. Reed". The signature is written in black ink and is positioned above the typed name.

by: John H. Reed
Chairman