

# New Developments — Chlorine, Ammonia and Other TIH Cars



## DOT Public Meeting

The U.S. DOT will hold a public meeting December 14 focusing on “potential improvements to the design of hazardous materials tank cars that would enhance overall safety and security”. In the meeting announcement, DOT asked a series of questions to prompt input from interested parties. Among the issues are accident

survivability of tank car tanks and top fittings, puncture resistance, security issues, assessing risk of the car/commodity pairing, and the use of on-board sensors and tracking devices. It is anticipated that the primary focus will be on cars carrying toxic by inhalation (TIH) materials including chlorine and ammonia. The FRA had previously indicated that it would seek broader input before accepting the AAR proposal. A DOT public meeting held earlier this year sought input on the safety of hazardous materials transportation by rail. The Summer 2006 edition of *On track!* described that meeting.

## AAR Adopts Proposal for Chlorine and Ammonia Cars

The Autumn 2006 edition of *On track!* provided information about an AAR proposal for cars carrying chlorine and ammonia. These two products represent about 80% of rail TIH shipments. This proposal has now been adopted by the AAR and would require:

- New cars ordered after January 1, 2007 must meet the new requirements.
- All existing cars must be modified or removed from service by the end of 2017.
- Car owners are to seek AAR approval for their plan to remove existing cars by the end of 2017. A proposed requirement to

meet 50% completion by the end of 2012 was removed, but it remains unknown what schedule the AAR will accept.

- Chlorine cars must meet a 105J600W specification plus head shields and added top fittings protection. A 105J500W specification is currently required.
- Ammonia cars must meet a 112J500W specification with added top fittings protection. A 112J340W specification incorporating head shields is currently required.
- Security issues are not addressed.

The AAR view is that their action does not require approval from the DOT.

## Industry Concerns and Action

Industry is moving quickly to develop a new tank car that will substantially exceed the AAR specification in terms of puncture resistance as well as providing enhanced security. A consortium of Dow, Union Tank Car and Union Pacific Railroad is developing a new standard, and has recently established a panel that includes other chlorine shippers. Complementary to the work of the Dow consortium, the Chlorine Institute is progressing with work on puncture resistance.

Shippers and car owners are concerned that the AAR specification does not take new research into account and does not address security issues. The AAR standard is regarded as a short-term action. There is a lot of uncertainty in making a long-term investment in tank cars until there is some agreement on a long-term specification. This conflicts with the AAR's drive to remove existing cars from chlorine and ammonia service.

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