



U.S. Department
of Transportation

**Federal Railroad
Administration**

Railroad Safety Advisory Committee Task Statement: Locomotive Crashworthiness

Task No.: 97-1

Date presented to the RSAC: June 24, 1997

Purpose:

To promote the safe operation of trains and the survivability of locomotive crews where train incidents do occur.

Description:

Investigate and develop, if necessary, crashworthiness specifications to ensure the integrity of the locomotive cab in accidents resulting from collisions such as highway-rail crossing accidents, sideswipes, and shifted loads.

Issues requiring specific report:

- (1) Review relevant accident data and existing industry standards to determine what, if any appropriate modifications to the cab structure are required to provide additional protection above that provided by existing requirements as specified in AAR Standard S-580. Areas of consideration shall include, but are not limited to the following:

- incorporation of full-height corner posts;
- improved glazing design and support structure;
- equipment to deter the post-collision entry of flammable liquids; and
- improved fuel tank design.

Target date to report to RSAC: 1/99

- (2) Examine the extent to which improved anticlimber designs and/or incorporation of shelf couplers—used to complement the existing requirements of AAR Specification S-580—serve to mitigate the effects of the above listed collision scenarios.

Target date to report to RSAC: 1/99

- (3) Examine past and present methods of emergency cab egress, along with the benefits of emergency lighting in the event of a collision, and—based on a review of relevant accident data, available technology, implementation costs, and other applicable factors—develop appropriate recommendations.

Target date to report to RSAC: 7/98

Source:

Section 10 of the Rail Safety Enforcement and Review Act of 1992.

Refer to/establish following working group:

Locomotive Crashworthiness Working Group

Target dates:

As described above, July 1998 for Emergency Cab Egress issues and January 1999 for all other issues.

Disposition: Accepted Declined

Date: _____