

Winter-Related Safety Issues

This year winter seems to have come early to many parts of the country. Significant snow has already fallen in some areas. And cold temperature and extended darkness are present.

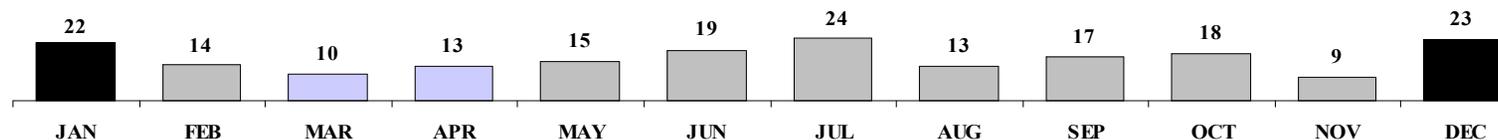
SOFA has observed that risk for switching fatalities and severe injuries increases with wintry conditions. In its *2011 SOFA Report*, SOFA provides some information to reduce winter risk. Short excerpts are provided from the report in the following pages, organized around these topics:



- weather
- extended darkness
- winter clothing affecting hearing and vision
- housekeeping (e.g., shoveling walkways)
- winter preparation
- working along mainlines (SOFA Advisory 5)

Consult the *2011 SOFA Report, Vol. I and II*, for the full context. Find the report at: <http://www.fra.dot.gov/Page/P0016>

197 Switching Fatalities, by month: January 1992 through November 12, 2014
Increases in December and January



1,821 SOFA-defined Severe Injuries, by month, January 1997 through August 2014
Increases in Winter Months



Winter-Related Safety Issues (continued)

Quotations below are from the *2011 SOFA Report, Vol. I and II*. Consult the report for the full context

Weather

“...ice can increase the risk of derailment, snow can reduce visibility, and mud can create unsafe footing conditions.”
Vol. II, p. H-6

Extended darkness

“Lack of daylight can compromise visibility and may affect the mood and alertness of the workforce.” *Vol. II, p. H-6*

Winter clothing affecting hearing and vision

“...outer clothing worn during winter months can restrict hearing and peripheral vision; therefore, extra caution should be exercised.” *Vol. I, p. 40*

Housekeeping

[In reference to industrial sites] **“Maintenance of track and walkways...This includes ice and snow removal, clearing of debris alongside the track, and immediate removal of objects or debris blocking the track or walkway. This directly impacts the decision of the ground service employee[s] to walk or ride equipment.”** *Vol. I, p. 36*

Winter safety preparation

“The railroad industry may want to consider additional preparation and education of the workforce on adapting to changing conditions in summer and winter.” *Vol. I, p. 51*

“Make cold weather an issue in upcoming safety awareness campaigns. Increasing workforce awareness of this problem could be an important step in reducing fatalities in cold weather during the winter. Since many fatalities occur right at the beginning of winter, get an early start with a weather awareness campaign. Emphasize the increase risk on main track, particularly the risk of being struck by a passing train. Include alerts about weather conditions and how to operate safely in icy conditions in safety briefings and bulletins. Ensure customers do their part to keep industrial track and walkways clear of mud, ice, and snow. Advise management and crews to think safety first and adjust productivity expectations to suit the challenging conditions which occur in cold weather states in the winter.”
Vol. II, p. H-6

Winter-Related Safety Issues (continued)

Quotations below are from the *2011 SOFA Report, Vol. I and II*. Consult the report for the full context

Working along mainlines (SOFA Advisory 5):

“65% of the Struck by Mainline Trains fatalities occurred from December through February.” *Vol. I, p. 40*

“...communication is essential to eliminating fatalities related to Struck by Mainline Trains. Fatalities occur when employees are unaware of risks associated with doing work along mainline track – particularly at times of darkness and during winter months.” *Vol. I, p. xxii*

SOFA Advisory 5: Struck by Mainline Train – section 3.7.5 of 2011 SOFA Report

“The SWG [SOFA Working Group] reemphasizes that communication is essential to eliminating fatalities related to Struck by Mainline Trains. Fatalities occur when employees are unaware of risks associated with doing work along mainline track – particularly at times of darkness and during winter months. Therefore, the railroad industry should insist upon consistent use of multiple methods to warn employees about oncoming on-track movements. Equally, warnings should be made to the approaching on-track movement of an employee’s location when a crew member is outside of the locomotive cab. In addition, the railroad industry should consider improving employee visibility when performing work on the ground.

Employees must use job briefing procedures before dismounting the locomotive or doing work along mainline track to establish a safe method for performing their work. When possible, employees must dismount to the safe side. Empower employees to establish a safe location when stopping and/or performing work when on or near mainline track. The railroad industry must support employees in the use of individual discretion as part of an effort to determine a safe location to perform work.”

SOFA Advisory 5 (Struck by Mainline Train): Some Basic Points

- **Communication is essential to eliminating fatalities. Fatalities occur when employees are unaware of risks associated with doing work along mainline track, particularly during darkness and winter months.**
- **Insist upon consistent use of multiple methods to warn employees about oncoming on-track movements.**
- **Warnings should be made to the approaching on-track movement of an employee’s location when a crew member is outside of the locomotive cab.**
- **Consider improving employee visibility when performing work on the ground.**

Winter-Related Safety Issues (continued)

SOFA Advisory 5 (Struck by Mainline Train): Some Basic Points

- Use job briefing procedures before locomotive dismount or work along mainline track to establish a safe method for performing work.
- When possible, employees must dismount to the safe side.
- Empower employees to establish a safe location when stopping and/or performing work when on or near mainline track.
- The RR industry must support employees in the use of individual discretion as part of an effort to determine a safe location to perform work.
- Darkness and winter months are associated with this Fatality type. Awareness may be compromised and degraded. Darkness may impair depth perception. Use multiple warning methods (as radio, horn, bell, and headlight), both visual and auditory. A single warning from one device can be misconstrued or forgotten. Reflective clothing, and clothing that does not impair hearing and peripheral vision, are desirable.
- Mainline inspections (as locomotive, roll-by, and hotbox) can involve risks. Employees should exercise discretion about the location and timing. A job briefing should be conducted before any member exits the cab. At a minimum, a this job briefing should include:
 - Determination of a safe location to stop.
 - If inspection can be performed from the safe field side.
 - If not, can dismounting be from the field side.
- If not, there must be awareness of all approaching movements, consideration of time to dismount, avoidance of fouling track, recognition that warnings may not be adequate, and planning of a worst-case scenario that includes an escape route.
- Communication may not be adequate when work is performed along a mainline. Effective communication must exist among crew, between crews, dispatchers, and yardmasters. Effective communication includes:
 - Utilizing established programs like Crew Resource Management.
 - Not exiting the cab without verbalizing intentions.
 - Contact with, and providing warnings, for crew members outside the cab.
- Establishing a safe zone outside the cab for communication with the crew, other crews and movements, dispatcher, and yardmaster.