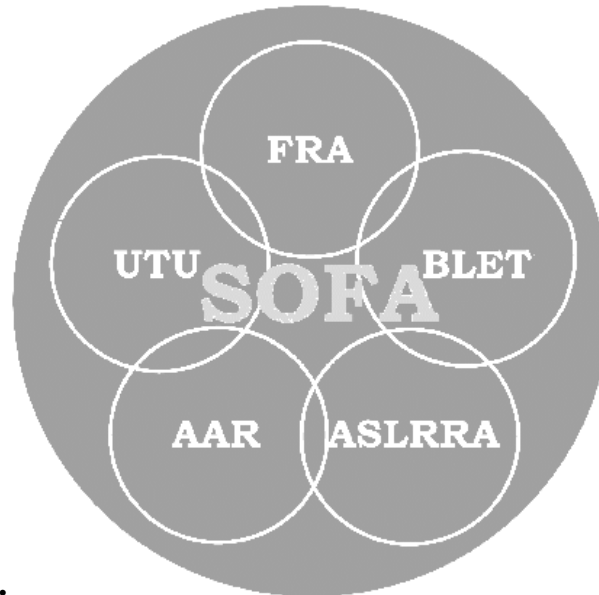


(Please Post Immediately)

Achieve Zero Switching Fatalities



**Roll-by/struck-by-mainline-trains is a
Special Switching Hazard, and a
significant source of switching fatalities.**

Page 13.

MARCH 2005 UPDATE

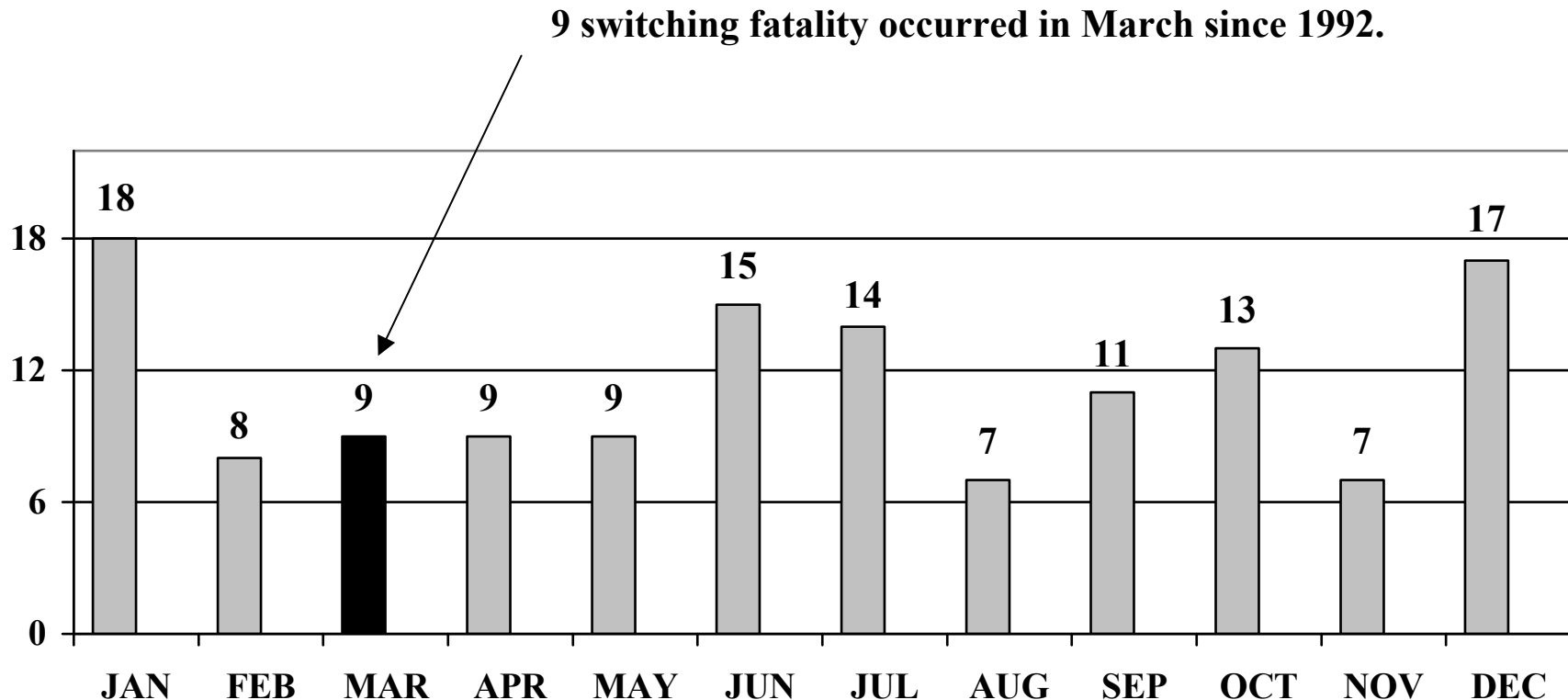
March ~ nine switching fatalities since 1992

March ~ the second highest month for amputations, a debilitating type of Severe Injury

March 2005 Overview

9 Switching Fatalities in March Since 1992

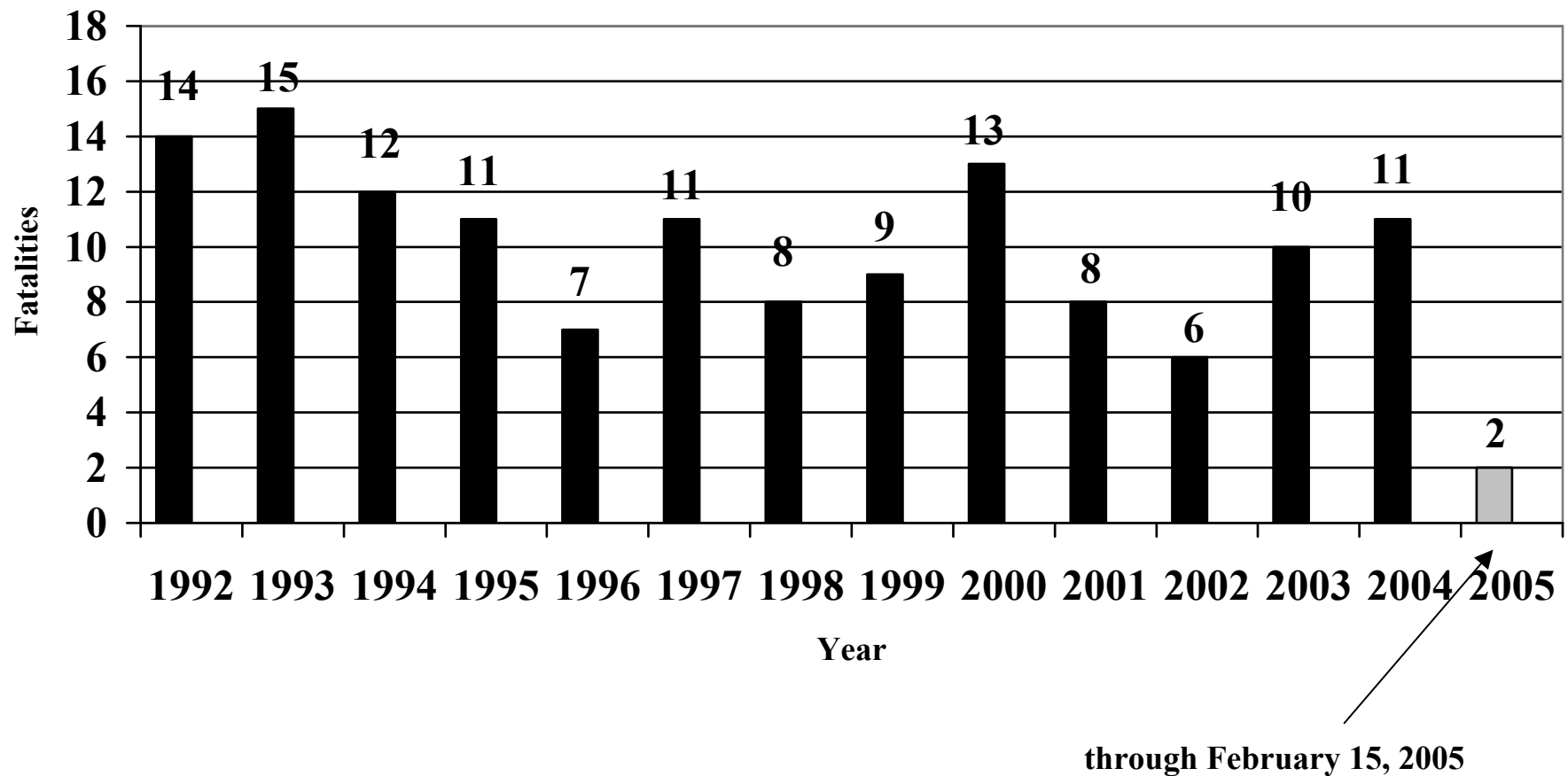
- Since 1992, 137 switching fatalities occurred through February 15, 2005. 10.3 switching fatalities occur on average each year.
- 26 percent of switching fatalities occurred in December and January. If switching fatalities were evenly distributed across months, 16.7 percent of fatalities would occurred in any two months.



137 Switching Fatalities Since 1992 (through February 15, 2005)

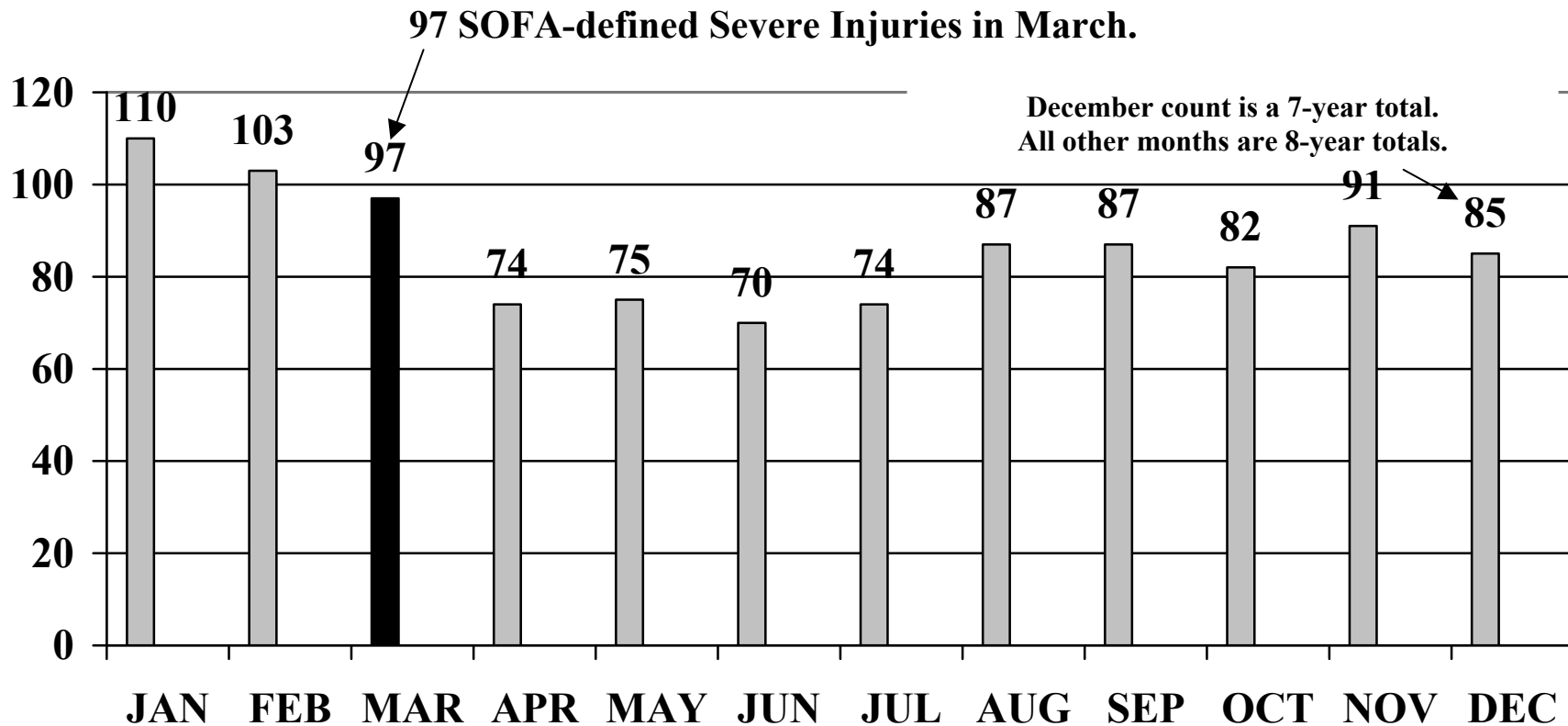
The Switching Operations Fatality Analysis (SOFA) Group reviews each switching fatalities after the Federal Railroad Administration completes its investigation. There have been 137 fatalities since 1992. There were 11 fatalities in 2004. And 2 fatalities have occurred in 2005 through February 15.

On average, 10.3 switching fatalities occur each year.



97 SOFA-defined Severe Injuries (including amputations)* in March (January 1997 to November 2004)

* *Severe Injuries* were defined by the SOFA Working Group as (1) potentially life threatening; (2) high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) result from a high-energy impact to the human body. 'Severe Injuries' include amputation, dislocation of the neck, loss of eye, electric shock or burn, and fracture to any bone except the lower arm, fingers, foot, and toes, See *Severe Injuries to Train and Engine Service Employees: Data Description and Injury Characteristics*. July 2001. This report may be found on the FRA's website.

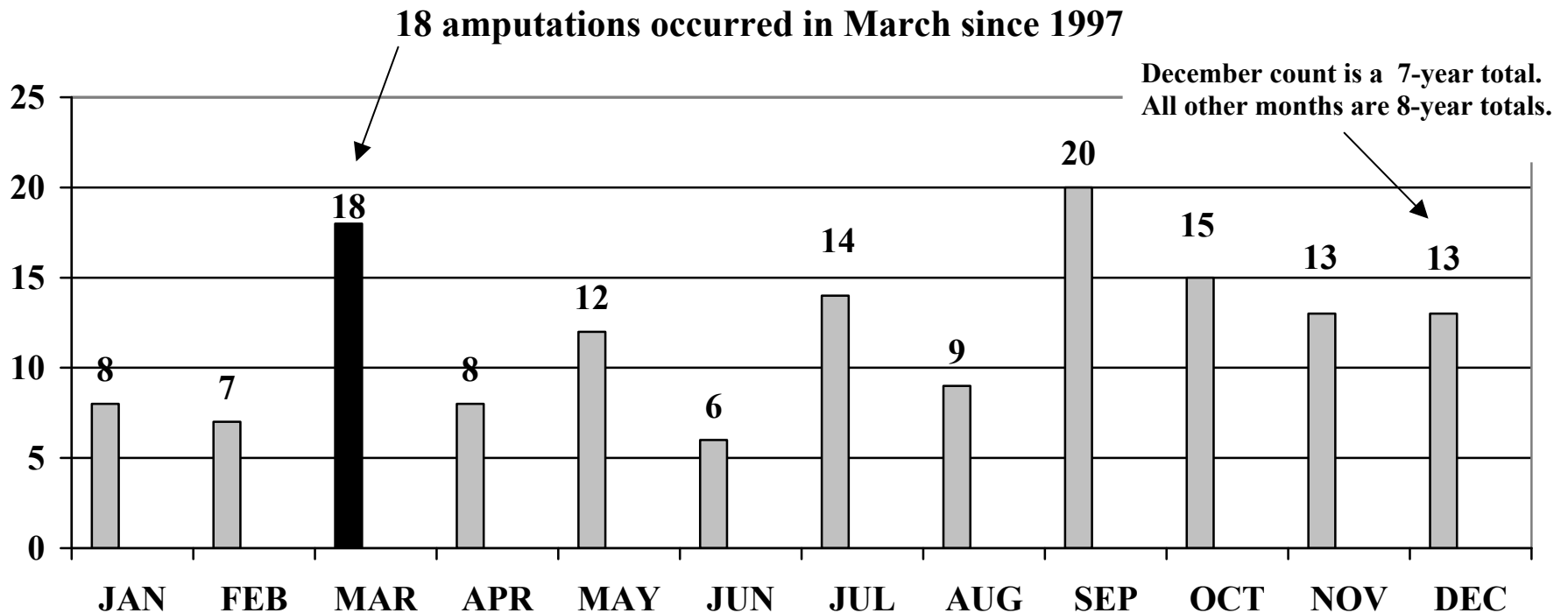


1,035 Severe Injuries occurred from January 1997 through November 2004
132.4 Severe Injuries occur on average each year**

** Latest month available from the Federal Railroad Administration's electronic files.

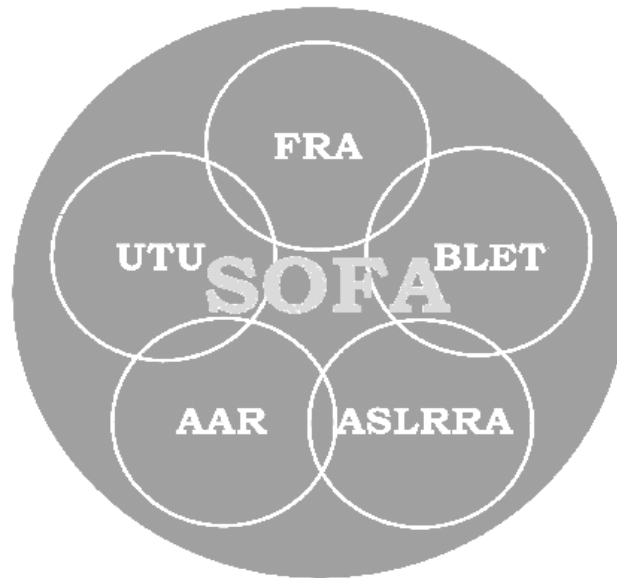
18 Amputations (a type of Severe Injury) in March (January 1997 to November 2004)

- Amputations are a type of SOFA-defined Severe Injury and are counted in Severe Injuries.
- Amputations are displayed separately because of the extreme nature of trauma to employees engaged in switching operations, and the potential for permanent occupational limitation.



143 amputations occurred from January 1997 through November 2004*

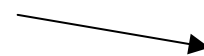
* Latest month available from the Federal Railroad Administration's electronic files.



Switching Fatalities

9 March Switching Fatalities, 1992 through 2004

Read more about these fatalities and how such events can be prevented in
Findings and Recommendations of the SOFA: August 2004 Update Working Group



#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	Movement Direction	SOFA Recommendation	Special Switching Hazard
1	3/11/92	FEC	Fort Pierce, FL	36	16	yard conductor	riding	alongside on-track equipment	derailment	pulled	Rec 4	--
2	3/27/93	SP	Guadalupe, CA	39	19	road brakeman	riding	on end of car	struck by object	n/a	--	employee tripping, slipping, falling
3	3/02/95	NS	Aiken, SC	46	22	road brakeman	adjusting coupler	on track	struck by on-track equipment	pulled	Rec 1 and 3	--
4	3/21/95	SP	Bassett, CA	55	24	road brakeman	walking	on track	struck by on-track equipment	pulled	--	miscellaneous
5	3/20/96	BRC	Bedford Park, IL	28	0.3	yard conductor	adjusting coupler	between cars/loco	struck by on-track equipment	shoved	Rec 1 and 5	--
6	3/09/00	IHB	Riverdale, IL	43	24	yard conductor	crossing between	between cars/loco	64	shoved	Rec 1	--
7	3/03/01	BNSF	Willmar, MN	36	3.8	yard brakeman	standing	between cars/loco	struck by on-track equipment	shoved	Rec 1	--
8	3/21/02	NS	Claymont, DE	45	13	road engineer	getting on	alongside on-track equipment	struck by on-track equipment	n/a	--	close clearance and struck by mainline trains
9	3/10/04	MNCW	Stamford, CT	46	27	conductor	investigation ongoing					

9 March Switching Fatalities, 1992 through 2004 (continued)

- The average age of the employees was 41.6 years; average length of service was 16.6 years.
- Three of the 9 employees – 33 percent – had 20 or more years of service. A fourth employee had 19 years of service.

Day of Week and Time of 9 March Switching Fatalities

#	Date	RR	Location	Day of Week	Time
1	3/11/92	FEC	Fort Pierce, FL	Wednesday	1:15 AM
2	3/27/93	SP	Guadalupe, CA	Saturday	12:30 PM
3	3/02/95	NS	Aiken, SC	Thursday	9:44 AM
4	3/21/95	SP	Bassett, CA	Friday	8:40 AM
5	3/20/96	BRC	Bedford Park, IL	Wednesday	11:25 PM
6	3/09/00	IHB	Riverdale, IL	Thursday	4:20 AM
7	3/03/01	BNSF	Willmar, MN	Saturday	7:15 PM
8	3/21/02	NS	Claymont, DE	Thursday	12:24 PM
9	3/10/04	MNCW	Stamford, CT	Wednesday	12:41AM

Narratives of 9 March Switching Fatalities

SOFA Recommendation and/or Special Switching Hazard

1 March 11, 1992 – FEC – Fort Pierce, FL

Recommendation 4

This case involved the conductor riding a car into Track 8. The car derailed at the spiked switch and the conductor was subsequently killed. The conductor's last radio transmission was "...we're lined in eight rail, three or four cars to a joint." Movement stopped after car had derailed and side swiped adjacent car.

2 March 27, 1993 – SP – Guadalupe, CA

Employee Tripping, Slipping, Falling

A four-person crew (engineer, conductor, 2 brakeman) was in the process of pulling one track out and then intended to shove back into another track to pick up more cars. The head brakeman was in control of the move. The rear brakeman was found dead adjacent to the track that was pulled. Evidence suggests that the rear brakeman may have mounted, or tried to mount the car that ran him over as the cut was pulled out of the track.

3 March 02, 1995 –NS – Aiken, SC

Recommendation 1 and 3

Switch crew was pulling a cut of cars out of an industry. Brakeman stepped in track gauge to open knuckle on the rear car at the same time crew shoved back to kick two cars that ran over the brakeman.

4 March 21, 1995 – SP – Bassett, CA

Miscellaneous

A three-person crew was called to operate a road local and arrived at a location where some plant switching was to take place. After lining up their cars, the two locomotives and two cars began a shove move on the brakeman's radio command. The brakeman was walking adjacent to the track on which the cars were being shoved and had his back to the move. He was killed when he suddenly crossed the tracks in front of the movement and was struck. The move stopped immediately. Post accident investigation revealed that the brakeman was concerned about the results of a medical examination that were due the next day.

Narratives of 9 March Switching Fatalities (continued)

SOFA Recommendation and/or Special Switching Hazards

5 March 20, 1996 – BRC – Bedford Park, IL

Recommendation 1 and 5

Three-person crew was switching in class yard, coupling between sixth and seventh car failed to couple. Conductor stopped locomotive and went between the cars to straighten the drawbar, and twenty-three cars rolled in behind him and coupled him up.

6 March 09, 2000 – IHB – Riverdale, IL

Recommendation 1

The employee was struck by an unsecured cut of cars that rolled into him while he was attempting to adjust the coupler or drawbar.

7 March 03, 2001 – BNSF – Willmar, MN

Recommendation 1

The switchman of a three-person yard switching crew made a cut on a block of cars sitting on a yard track and told the engineer to pull the cars out. Apparently, as the cars were being pulled out, the switchman stepped between the gauge of the track and was struck and killed by the remaining cars on the track that had begun to roll in the same direction as the cars being pull out of the track.

8 March 21, 2002 – NS – Claymont, DE

Close Clearance and Stuck by Mainline Trains

A locomotive engineer had been dropped off at the head end of his train while the conductor was taken to the rear to check on the REM. After crossing over the ATK corridor mainline tracks, and beginning to board his locomotive, the engineer was dragged off the stairs of the locomotive and killed by a passing 110 MPH passenger train.

9 March 10, 2004 – MNCW – Stamford, CT

[investigation ongoing]

A 46-year old conductor, with 27 years of service, was killed when struck by his own equipment at the Metro North Stamford Yard.

15 Roll-By/Struck-by-Mainline-Train Fatalities

Recently, there have been three roll-by/struck-by-mainline-train fatalities:

On January 10, 2005, a UP conductor, with 32 years of service, was struck by a mainline train when he stepped out from between the cars of his train.

On December 17, 2004, a BNSF conductor, while stopped on a siding track to meet an opposing train, detrained to perform a roll-by inspection of a passing train. Conductor stepped off his train and was apparently struck by the opposing UP train.

On November 01, 2004, a BNSF conductor, while stopped on a siding track to meet an opposing train, detrained to perform a roll-by inspection of a passing train. Conductor stepped off his train and was apparently struck by the opposing train.

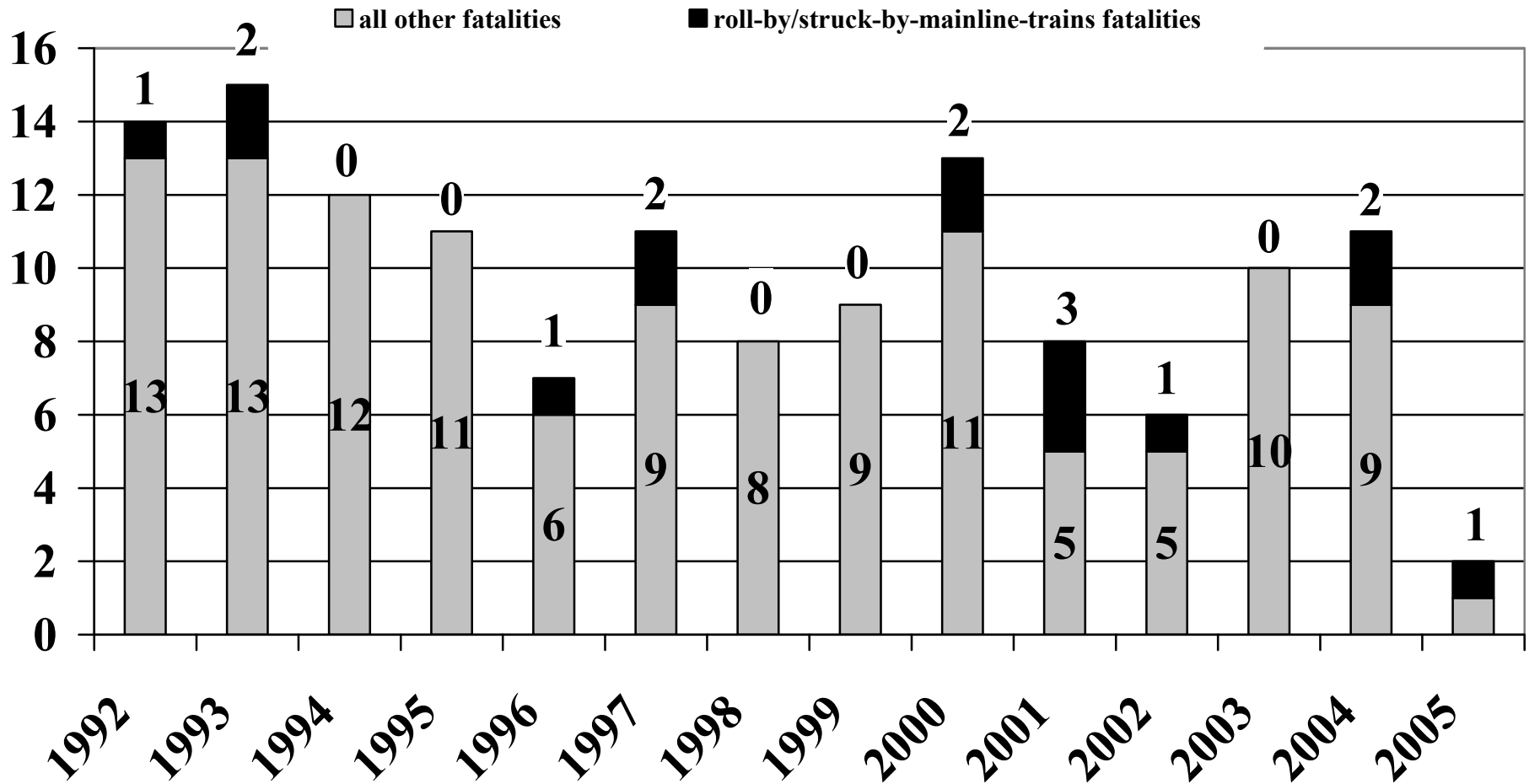
Since 1992, there have been twelve roll-by/struck-by-mainline-train fatalities in addition to these three recent ones. Employees on the ground were struck by mainline trains while performing roll-by inspections, inspecting equipment, or getting on and off their equipment.

Fifteen Roll-By/Struck-by-Mainline-Train Fatalities

	Date	RR	Location	SOFA Operating Recommendation	Special Switching Hazard
1	07/07/92	SSW	Conlen Siding, TX	none	struck by mainline train
2	04/13/93	CSX	Dwale, KY	none	struck by mainline train
3	12/05/93	SOU	Atlanta, GA	Recommendation 3	
4	07/07/96	NS	Sidney, IN	Recommendation 5	
5	07/18/97	MNCW	Stamford, CT	none	struck by mainline train
6	12/02/97	BNSF	Emporia, KS	none	struck by mainline train
7	12/28/00	UP	Dupo, IL	none	struck by mainline train
8	12/29/00	BNSF	Gillette, WY	none	struck by mainline train
9	01/10/01	CSX	Chicago, IL	Recommendation 5	
10	01/11/01	NS	South Fork, PA	Recommendation 3	
11	12/24/01	NS	Lynchburg, VA	none	close clearance*
12	03/21/02	NS	Claymont, DE	none	close clearance*
13	11/01/04	BNSF	Bowdoin, MT	_____	investigation ongoing
14	12/17/04	BNSF	Radium, CO	_____	investigation ongoing
15	01/10/05	UP	Buena Vista, AR	_____	investigation ongoing

* The SOFA Working Group has broadened the traditional definition of ‘close clearances’ to include situations “When an employee is passing, or being passed, by an object or equipment and the conditions are such that there is not enough room for the employee to avoid being struck.” From *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. p. 48-50.

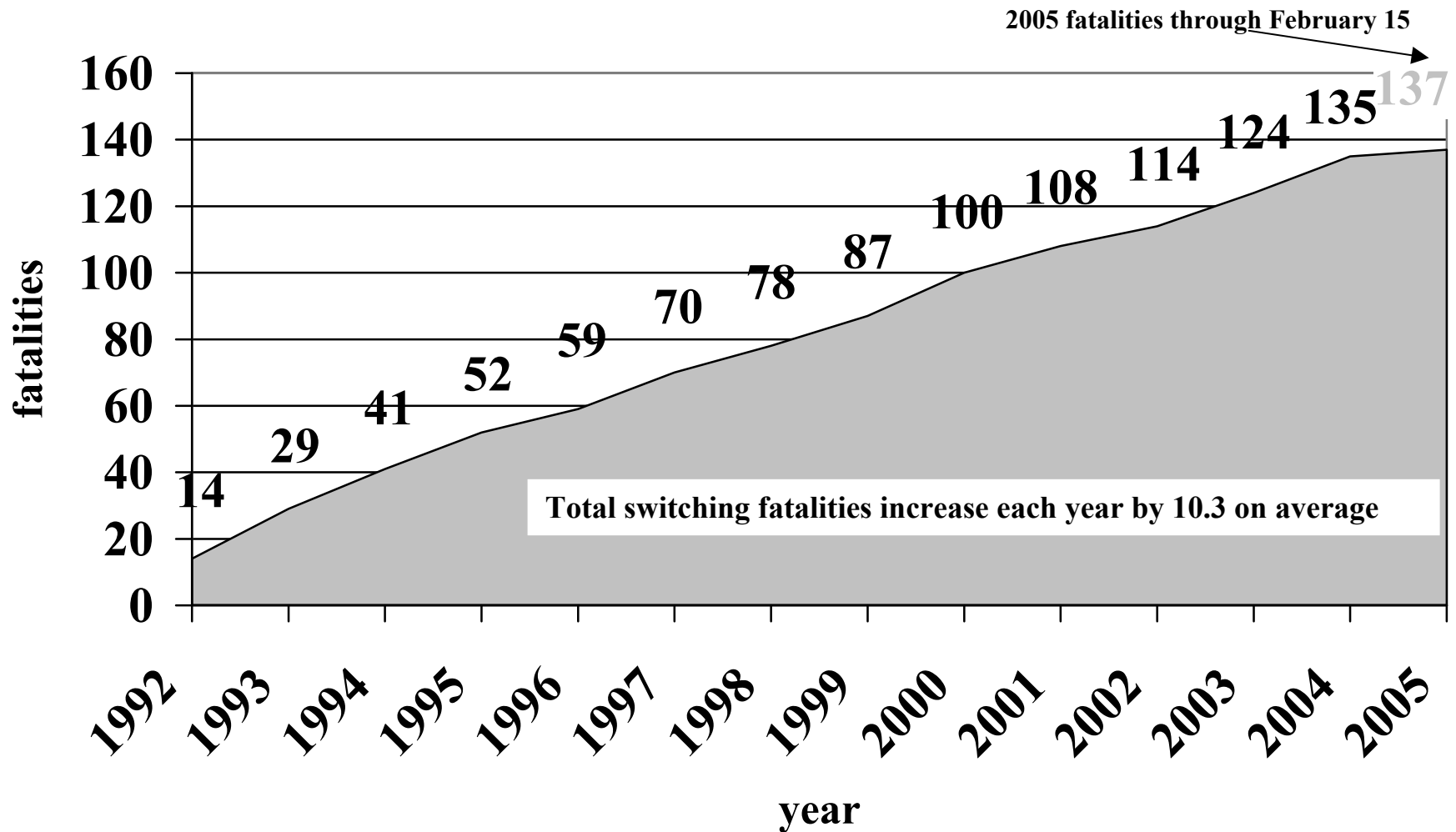
Roll-By/Struck-By-Mainline-Train Switching Fatalities, 1992 to 2005

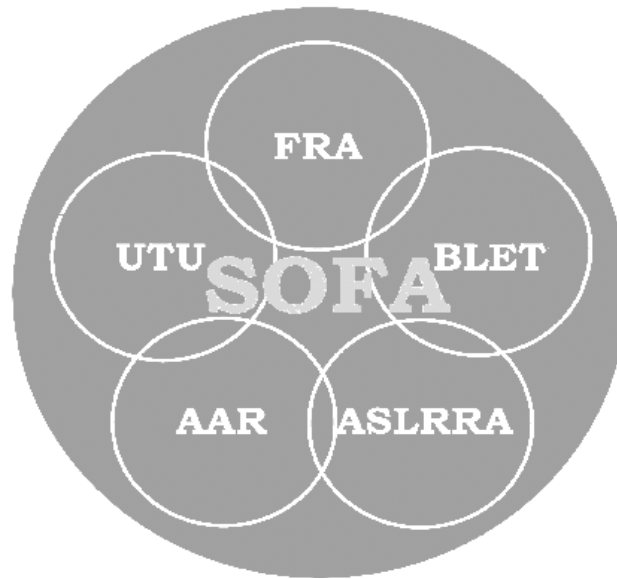


- Roll-by/struck-by-mainline-trains, a Special Switching Hazard, is a significant source of switching fatalities.
- Since 2000, nine roll-by/struck-by-mainline-trains fatalities have occurred.

2 Switching Fatalities in 2005 through February 15

1. **JAN 10...** Union Pacific (UP) conductor, with 32 years of service, was struck by a mainline train when he stepped out from between the cars of his train in Buena Vista, AR.
2. **JAN 26...** Pacific Harbor Line (PHL) conductor was struck by his train at 5:30 pm while lining a switch at Los Angeles, CA.





SOFA-defined Severe Injuries

SOFA-defined Severe Injuries ¹

Injuries

Amputations ²

January 1992 to November 2004

	1997	1998	1999	2000	2001	2002	2003	2004	1997	1998	1999	2000	2001	2002	2003	2004
JAN	11	13	16	15	21	12	11	11	1	0	2	1	0	0	2	2
FEB	17	15	9	9	9	13	17	14	0	1	0	1	0	2	1	2
MAR	14	12	17	11	10	10	13	10	3	4	3	2	1	1	3	1
APR	8	10	6	10	12	6	9	13	1	2	0	1	2	0	1	1
MAY	6	12	8	8	12	14	9	6	1	2	3	0	2	2	2	0
JUN	9	10	8	11	8	5	10	9	2	1	1	0	1	0	0	1
JUL	9	14	10	8	10	7	6	10	1	5	1	0	4	0	1	2
AUG	13	10	11	14	8	10	7	14	1	0	1	4	0	1	0	2
SEP	10	11	15	10	20	12	5	4	2	4	3	2	5	4	0	0
OCT	12	12	16	10	5	11	9	7	2	5	2	2	0	0	2	2
NOV	12	9	12	11	13	14	10	10	2	2	2	2	3	0	1	1
YTD ³	121	128	128	117	128	114	106	108	16	26	18	15	18	10	13	14
DEC	18	9	7	22	12	9	8		4	1	0	4	1	1	2	
totals	139	137	135	139	140	123	114		20	27	18	19	19	11	15	

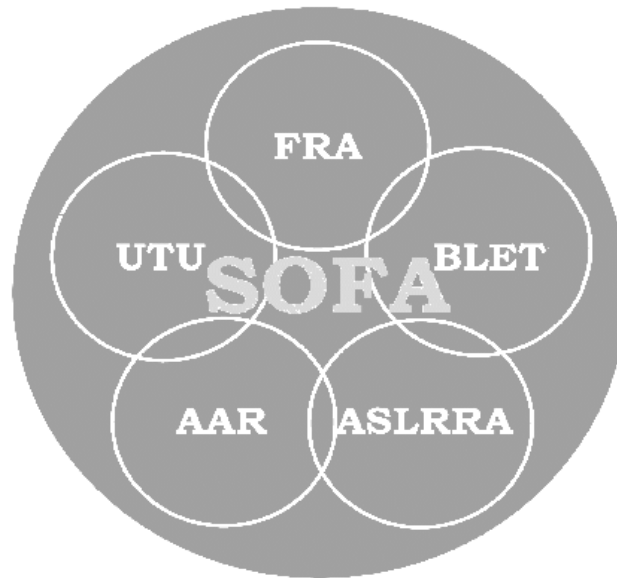
The previous seven years have averaged 120.3 Severe Injuries for the period January through November.

The previous seven years have averaged 16.6 amputations for the period January through November.

¹ *Severe Injuries* were defined by the SOFA Working Group as (1) potentially life threatening; (2) high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) result from a high-energy impact to the human body. 'Severe Injuries' include amputation, dislocation of the neck, loss of eye, electric shock or burn, and fracture to any bone except the lower arm, fingers, foot, and toes, See *Severe Injuries to Train and Engine Service Employees: Data Description and Injury Characteristics*. July 2001. This report may be found on the FRA's website.

² Amputations are a type of SOFA-defined Severe Injury and are counted in 'Injuries'. Amputations are broken out separately because of the extreme nature of trauma to employees engaged in switching operations, and the potential for permanent occupational limitation.

³ November is the latest month of Severe Injuries available from the Federal Railroad Administration's electronic files.



Prevention

March Switching Fatalities

Recommendation 1

Four March Fatalities Apply: Aiken, SC Bedford Park, IL Riverdale, IL Willmar, MN

Any crew member intending to foul track or equipment must notify the locomotive engineer before such action can take place. The locomotive engineer must then apply locomotive or train brakes, have the reverser centered, and then confirm this action with the individual on the ground. Additionally, any crew member that intends to adjust knuckles/drawbars, or apply or remove EOT device, must insure that the cut of cars to be coupled into is separated by no less than 50 feet. Also, the person on the ground must physically inspect the cut of cars not attached to the locomotive to insure that they are completely stopped and, if necessary, a sufficient number of hand brakes must be applied to insure the cut of cars will not move.

Lifesaver 1

Secure equipment before action is taken.

Discussion 1

This recommendation emphasizes the importance of securing the equipment. A thorough understanding by all crew members that the area between cars is a hazardous location, whether equipment is moving or standing, is imperative.

Recommendation 3

One March Fatality Applies: Aiken, SC

At the beginning of each tour of duty, all crew members will meet and discuss all safety matters and work to be accomplished. Additional briefings will be held any time work changes are made and when necessary to protect their safety during their performance of service.

Lifesaver 3

Discuss safety at the beginning of a job or when a project changes.

Discussion 3

Safe switching operations require teamwork and accountability among all crew members. Each crew member takes responsibility for their own and their fellow crew member's safety. Team work begins with a detailed, effective job briefing, but includes continued updates to all crew members describing the current state of each move as it is executed.

Recommendation 4

One March Fatality Applies: Fort Piece, FL

When using radio communication, locomotive engineers must not begin any shove move without a specified distance from the person controlling the move. Strict compliance with “distance to go” communication must be maintained.

When controlling train or engine movements, all crew members must communicate by hand signals or radio signals. A combination of hand and radio signals is prohibited. All crew members must confirm when the mode of communication changes.

Lifesaver 4

Communicate before action is taken.

Discussion 4

The SOFA group believes that the key to radio use when backing, shoving or pushing a train or cut of cars is the communication between the locomotive engineer and the train crew. The crew must develop the discipline to remain stopped until specific car counts are given by the ground person, rather than to begin moving and then expect to receive the count. If this is done, fatalities related to improper radio communication can be substantially reduced. Additionally, mixing radio and hand signals causes confusion, reduces the chance that other members of the crew would hear of a change in the switching operations, thereby greatly increasing misunderstandings, and, has directly led to fatalities studied by the SOFA Group.

Recommendation 5

One March Fatality Applies: Bedford Park, IL

Crew members with less than one year of service must have special attention paid to safety awareness, service qualifications, on-the-job training, physical plant familiarity, and overall ability to perform service safely and efficiently. Programs such as peer review, mentoring, and supervisory observation must be utilized to insure employees are able to perform service in a safe manner.

Lifesaver 5

Mentor less experienced employees to perform service safely.

Discussion 5

While classroom training time has increased, in general, the SOFA group has focused on experience and on-the-job training. We have found that limited training and experience continues to factor into many switching operation fatalities. Additional on-the-job training and experience, while working with more experienced peers, may help reduce fatalities among crew members with limited service.

Three of 9 March switching fatalities involved Special Switching Hazards:

- **Employee tripping, slipping, falling**
- **Miscellaneous Risk Factors**
- **Close clearance and roll-by/struck by mainline trains**

Preventing Roll-By/Struck-by-Mainline-Train Fatalities

Since 1992, nine of the 15 roll-by/struck-by-mainline-train fatalities (60 percent) occurred in the last five years. This clustering in time potentially represents a trend, indicating that future such fatalities may occur.

The SOFA Working Group (SWG) believes 2 of the 15 roll-by/struck-by-mainline-train fatalities were preventable by SOFA Recommendations 3; and 2 other fatalities, by SOFA Recommendation 5. (These Recommendations are cited below.)

For the other 11 roll-by/struck-by-mainline-train fatalities, at this time the SWG can only offer advice from its recent report, *Findings and Recommendations of the SOFA Working Group: August 2004 Update*:

“...[roll-by/struck-by-mainline-train] fatalities not involving an Operating Recommendation did not occur for a single reason or for a few reasons. Other than general vigilance, awareness, and alertness to the switching environment, it is difficult to prescribe a preventive measure.” p. 51

Preventing Roll-By/Struck-by-Mainline-Train Fatalities (continued)

Recommendation 3

At the beginning of each tour of duty, all crew members will meet and discuss all safety matters and work to be accomplished. Additional briefings will be held any time work changes are made and when necessary to protect their safety during their performance of service.

Lifesaver 3

Discuss safety at the beginning of a job or when a project changes.

Discussion 3

Safe switching operations require teamwork and accountability among all crew members. Each crew member takes responsibility for their own and their fellow crew member's safety. Team work begins with a detailed, effective job briefing, but includes continued updates to all crew members describing the current state of each move as it is executed.

Recommendation 5

Crew members with less than one year of service must have special attention paid to safety awareness, service qualifications, on-the-job training, physical plant familiarity, and overall ability to perform service safely and efficiently. Programs such as peer review, mentoring, and supervisory observation must be utilized to insure employees are able to perform service in a safe manner.

Lifesaver 5

Mentor less experienced employees to perform service safely.

Discussion 5

While classroom-training time has increased, in general, the SOFA group has focused on experience and on-the-job training. We have found that limited training and experience continues to factor into many switching operation fatalities. Additional on-the-job training and experience, while working with more experienced peers, may help reduce fatalities among crew members with limited service.

Recognizing Special Switching Hazards

“In addition to the Five Operating Recommendations, the SWG (SOFA Working Group) wants to make those engaged in switching operations aware of Special Switching Hazards. In its review of each of the 124 fatalities, the SWG identified a number of fatalities involving close clearances (10 fatalities), being struck by mainline trains (8 fatalities), and occurring during shove movements (61 fatalities). The number of fatalities involving close clearance and being struck by mainline trains would be greater if those classified both as a Special Switching Hazard and an Operating Recommendation were included in these fatality counts.” - from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. p. xiv.

List of Special Switching Hazards Identified by SOFA Working Group...

- Close Clearances*
- Free Rolling Railcars
- Exposure to Mainline Trains
- Tripping, Slipping, or Falling Exposures
- Adverse Environmental Conditions
- Shoving Movements
- Unsecured Cars
- Unexpected Movement of Cars
- Equipment Defects
- Motor Vehicles or Loading Devices
- Drugs and Alcohol

To achieve the Zero Switching Fatality Goal...

Special Switching Hazards must be recognized

* The SOFA Working Group has broadened the traditional definition of ‘close clearances’ to include situations “When an employee is passing, or being passed, by an object or equipment and the conditions are such that there is not enough room for the employee to avoid being struck.” From *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. p. 48-50.