

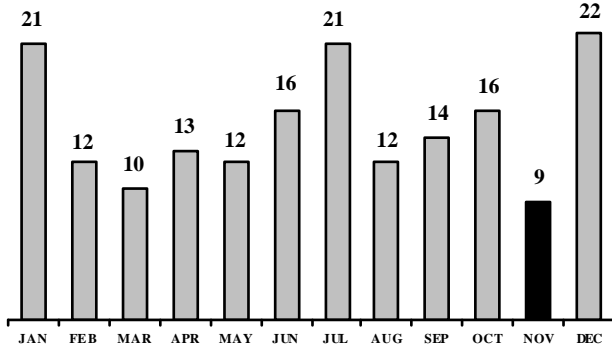
PLEASE POST IMMEDIATELY

Being Alert...Helps Prevent Being Hurt

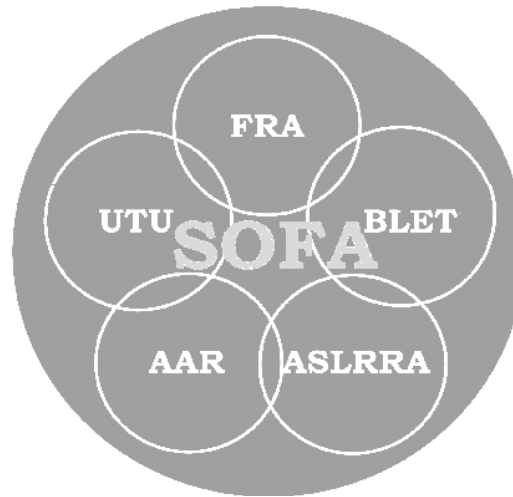
Apply SOFA Operating Recommendations...Recognize Special Switching Hazards

SOFA Quickie Quiz ?????

Because Switching Fatalities are historically low in upcoming November, it's a good time to **think** about de-emphasizing the *SOFA Operating Recommendations?* (Answer: Think not!)



178 Switching Fatalities: by month
January 1, 1992 through September 10, 2009



SOFA-defined Severe Injuries
are historically low
pages 7-10

2009 Switching Fatalities

through September 10

- Jan 16: Fort Sumner, NM
- Jan 28: Council Bluffs, IA
- Feb 07: Holbrook, AZ
- Feb 08: Harrington, KS
- Feb 28: Buchanan, NM
- May 10: Selkirk, NY
- Jun 24: Albertville, AL

preliminary summaries...page 2

Always Take Time
to Review

The Five SOFA
Operating Recommendations
pages 4-6

Switching Fatality and Severe Injury Update – 2009 Third Quarter

Preliminary Summaries of 7 Switching Fatalities in 2009

(through September 10: Information is preliminary, and not based on investigation)

1. January 16 – BNSF – Fort Sumner, NM

A locomotive engineer operating a moving train was later found dead by the crew of a following train. He was lying along the right of way near the 17th Street crossing east of town.

Near-by train movements were involved in the next three Fatalities:

2. January 28 – UP – Council Bluffs, IA

A 41-year-old switch foreman was working in the yard when he was struck and killed by a **passing mainline train** moving on an adjacent track.

3. February 7 – BNSF – Holbrook, AZ

A conductor was releasing hand brakes on his train when he was struck and killed by **another train** moving on the adjacent track.

4. February 8 – UP – Harrington, KS

A 26-year-old conductor was using hand signals to bring his engines back onto his train when he was struck and killed by **another train** moving on the adjacent track.

5. February 28 – BNSF – Buchanan, NM

A 59-year-old conductor was riding the side of the leading end of a shove move into a siding when he was knocked from the side of the car near a pile of cross ties stacked too close to the siding track.

6. May 10 – CSX – Selkirk, NY

A 32-year-old yard foreman operating a one-person remote control locomotive went in between the equipment to make an adjustment after the equipment had started back toward the car he intended to couple up to. The yard foreman was not able to get out from between the cars in time and was crushed between the standing equipment and the equipment he was operating.

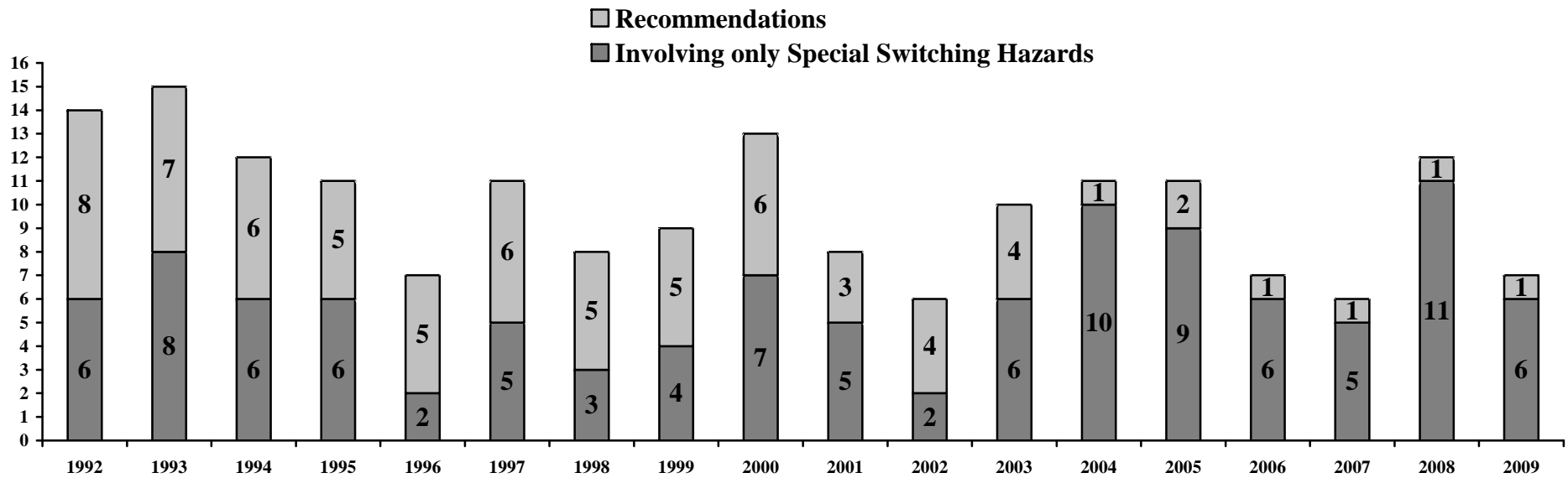
7. June 24 – ATR – Albertville, AL

A 33-year-old conductor was riding the leading end of 75 car cut (his train) to a position where he intended to spot the first—or leading 12 cars. As he was riding the car to the spot, it struck a piece of metal near the location of the intended spot crushing him between the tank car railing and the end dome of the tank car.

Recognize Special Switching Hazards

The SOFA Working Group is now reviewing recent Switching Fatalities with emphasis on Special Switching Hazards. While Fatalities related to Operating Recommendations have declined in recent years, the number of Hazard-related Fatalities has not.

178 Switching Fatalities Classified by Type: Involving Operating Recommendations; and Involving only Special Switching Hazards, January 1, 1992 through September 10, 2009



Special Switching Hazards include:

• Close clearances	• Unexpected movement of cars
• Shoving movements	• Adverse environmental conditions
• Unsecured cars	• Equipment defects
• Free rolling cars	• Motor vehicles or loading devices
• Exposure to mainline trains	• Drugs and alcohol
• Tripping, slipping or falling	• Other special hazards or events

Always Take Time to Review SOFA Operating Recommendations

Switching Fatalities associated with the *Five SOFA Operating Recommendations* have declined in recent years (*page 3*). However, there are still Fatalities that occur involving the *SOFA Recommendations*.

Fatalities associated with *Five SOFA Operating Recommendations* have proved to be among the most preventable...**Always Take Time to Review SOFA Operating Recommendations.**

More information can be obtained at <http://www.fra.dot.gov/us/content/1781> [accessed September 10, 2009].

Recommendation 1

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.

(continued on next page)

Always Take Time to Review SOFA Operating Recommendations

Recommendation 2

When two or more train crews are simultaneously performing work in the same yard or industry tracks, extra precautions must be taken:

SAME TRACK

Two or more crews are prohibited from switching into the same track at the same time, without establishing direct communication with all crew members involved.

ADJACENT TRACK

Protection must be afforded when there is the possibility of movement on adjacent track(s). Each crew will arrange positive protection for (an) adjacent track(s) through positive communication with yardmaster and/or other crew members.

Lifesaver 2

Protect employees against moving equipment.

Discussion 2

FE-06-94 and FE-31-94 both involved standing equipment left by another crew. In both cases, it can be argued that there was no possibility of either piece of equipment being moved. However, the fact that both pieces of equipment contributed to the fatalities and in both cases the respective crews had no knowledge that the equipment had been moved into the work area and that the physical layout expected by each fatality had changed contributed to the incident. Compliance with and an understanding of this recommendation would have prevented the other seven fatalities.

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.

(continued on next page)

Always Take Time to Review SOFA Operating Recommendations

Recommendation 4

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

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.

SOFA-defined Severe Injuries as Percent of All Reportable Casualty to *Train and Engine Employees*

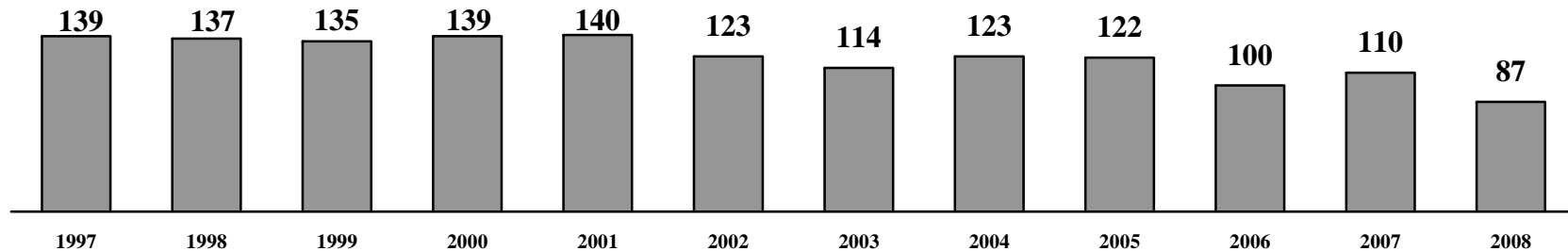
From 1997 to 2008, SOFA-defined Severe Injuries have averaged 3.96 percent of all reported casualties (but not including deaths) to *Train and Engine Employees*. About this average, there is annual variation, with a low of 3.54% in 1999; and high of 4.43% in 2007. For the first six months of 2009, the percent has declined to 2.95 percent.

Year	SOFA-defined Severe Injuries	All Reportable Casualty	Percent
	(1)	(2)	(3) = (1) / (2)
1997	139	3,468	4.01%
1998	137	3,626	3.78%
1999	135	3,814	3.54%
2000	139	3,878	3.58%
2001	140	3,547	3.95%
2002	123	3,013	4.08%
2003	114	2,923	3.90%
2004	123	2,888	4.26%
2005	122	2,796	4.36%
2006	100	2,468	4.05%
2007	110	2,481	4.43%
2008	87	2,152	4.04%
all years	1,469	37,054	3.96%
2009	27	914	2.95.%

Declines in SOFA-defined Severe Injuries

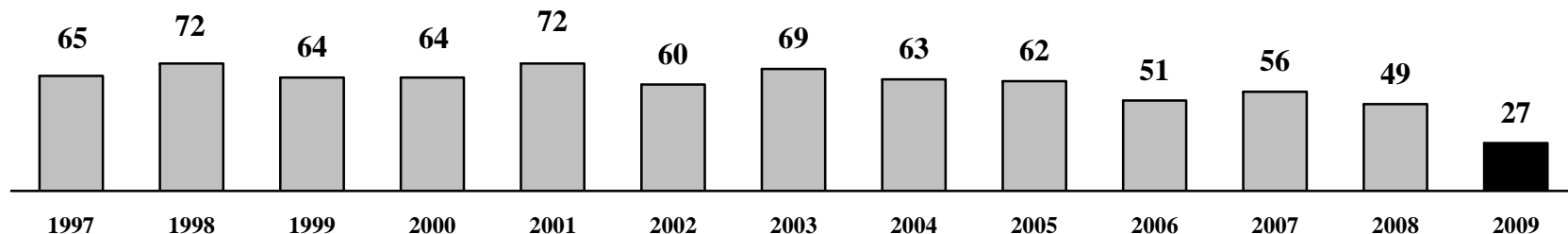
Full Year, 1997 through 2008: SOFA-defined Severe Injuries

- Beginning in 2002, Severe Injuries have declined, although not consistently year-to-year



First 6 Months, 1997 through 2009: SOFA-defined Severe Injuries

- For the first 6 months of 2009, Severe Injuries continue to decline, and are historical low



SOFA-defined Severe Injuries*

January 1997 through June 2009

(Note: Among SOFA Updates, counts previously presented may change based on revisions of FRA data)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	total	average
JAN	11	13	16	15	21	12	11	11	20	10	14	13	6	173	13.3
FEB	17	15	9	9	9	13	17	14	10	6	15	12	4	150	11.5
MAR	14	12	17	11	10	10	13	10	9	9	11	5	5	136	10.5
APR	8	10	6	10	12	6	9	13	10	7	8	9	5	113	8.7
MAY	6	12	8	8	12	14	9	6	6	8	3	7	1	100	7.7
JUN	9	10	8	11	8	5	10	9	7	11	5	3	6	102	7.8
subtotals	65	72	64	64	72	60	69	63	62	51	56	49	27		59.1
JUL	9	14	10	8	10	7	6	10	5	12	8	1		100	8.3
AUG	13	10	11	14	8	10	7	14	10	10	13	5		125	10.4
SEP	10	11	15	10	20	12	5	4	9	6	10	12		124	10.3
OCT	12	12	16	10	5	11	9	7	11	5	11	4		113	9.4
NOV	12	9	12	11	13	14	10	10	13	8	6	8		126	10.5
DEC	18	9	7	22	12	9	8	15	12	8	6	8		134	11.2
totals	139	137	135	139	140	123	114	123	122	100	110	87		1,496	

- **138.0** Severe Injuries per year on average: 1997 through 2001
- **115.0** Severe Injuries per year on average: 2002 through 2007
- **110** Severe Injuries in 2007, January through December
- **87** Severe Injuries in 2008, January through December
- **page 8** displays year-to-date comparisons for 2009

*Severe Injuries are 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. Available at: <http://www.fra.dot.gov/us/content/1781> [accessed September 10, 2009]

Amputations

January 1997 through June 2009

(Note: Among *SOFA Updates*, counts previously presented may change based on revisions of FRA data)

A type of SOFA-defined Severe Injury, Amputations are shown separately because of the extreme trauma to employees engaged in switching, and the likelihood of permanent occupational and lifestyle limitations.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	total	average
JAN	1	0	2	1	0	0	2	2	2	0	1	1	1	13	1.0
FEB	0	1	0	1	0	2	1	2	0	2	1	0	0	10	0.8
MAR	3	4	3	2	1	1	3	1	2	1	0	1	1	23	1.8
APR	1	2	0	1	2	0	1	1	2	2	3	3	1	19	1.5
MAY	1	2	3	0	2	2	2	0	0	1	1	0	0	14	1.1
JUN	2	1	1	0	1	0	0	1	0	0	1	1	0	8	0.6
subtotals	8	10	9	5	6	5	9	7	6	6	7	6	3		6.7
JUL	1	5	1	0	4	0	1	2	1	2	2	0		19	1.6
AUG	1	0	1	4	0	1	0	2	2	0	3	0		14	1.2
SEP	2	4	3	2	5	4	0	0	3	1	1	2		27	2.3
OCT	2	5	2	2	0	0	2	2	0	0	2	0		17	1.4
NOV	2	2	2	2	3	0	1	1	2	3	1	0		19	1.6
DEC	4	1	0	4	1	1	2	1	1	0	0	0		15	1.3
totals	20	27	18	19	19	11	15	15	15	12	16	8		198	

- **20.6** Amputations per year on average: 1997 through 2001
- **13.6** Amputations per year on average: 2002 through 2007
- **16** Amputations in 2007, January through December
- **8** Amputations in 2008, January through December
- **3** Amputations in 2009, January through June (historically low)

Switching Fatality Review Section

This section contains Switching Fatality cases for review: **September, October, and November.**

Most Fatality narrative summaries are from *Findings and Recommendations of the SOFA Working Group: August 2004 Update* [link below]. Additional information about these Fatalities is taken from the *SOFA Matrix*, the SOFA Working Group's electronic database. The narratives for more recent Fatalities are preliminary, and are designated: *'Information is preliminary, and not based on investigation.'*

Intent is that review will prove preventive. **In reviewing, please be mindful that these employees lost their lives in railroad service, an activity essential to the American economy.**

SOFA reports, including a complete discussion of the Five Operating Recommendations and Special Switching Hazards, are available at: <http://www.fra.dot.gov/us/content/1781> [accessed September 10, 2009]

Being Alert...Helps Prevent Being Hurt

Apply SOFA Operating Recommendations...Recognize Special Switching Hazards

14 September Switching Fatalities

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendations	Special Switching Hazard
1	09/02/93	ATSF	Carlsbad, NM	55	24	road conductor	crossing between	on track	struck by on-track equipment		Miscellaneous
2	09/20/94	ARR	Clear Site, AK	49	20	road brakemen	sitting	in car	derailments		Struck by Motor Vehicle
3	09/03/96	DGNO	Dallas, TX	43	.06*	road brakemen	standing	on end of car	ran into on-track equipment	5	
4	09/14/99	AM	Van Buren, AR	47	0.5	road conductor	adjusting coupler	between tracks	struck by on-track equipment	1, 5	
5	09/09/00	BNSF	Keokuk, IA	53	27	yard conductor	walking	on track	struck by on-track equipment	4	
6	09/02/02	CSXT	Madisonville, KY	52	24	road conductor	walking	on track	struck by on-track equipment		Unexp. Movement of Railcars
7	09/12/03	GC	Dublin, GA	45	0.2	road brakemen	walking	on track	struck by on-track equipment	5	
8	09/14/03	UP	Ogden, UT	53	26	yard conductor	handbrakes, releasing	on end of car	lost balance		Equipment
9	09/24/03	BNSF	Fresno, CA	35	2.3	yard conductor	riding	on side of car			Miscellaneous
10	09/02/04	BNSF	Clovis, NM	26	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
11	09/20/04	AA	Saline, MI	44	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
12	09/10/06	ALS	East St. Louis, IL	n/a	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
13	09/10/08	INRD	Terre Haute, IN	n/a	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
14	09/23/08	CSX	Darby, PA	46	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard

* Employee returned to work for three weeks after 10-year gap in service. Had 10 years and three weeks of total experience.

Being Alert...Helps Prevent Being Hurt
Apply SOFA Operating Recommendations...Recognize Special Switching Hazards

14 September Switching Fatality

No. 1 of 14: September 02, 1993 – ATSF – Carlsbad, NM

A three-person crew, accompanied by an engineer and a brakeman trainee, were trying, for the second time to make a coupling between two cars in a yard. The conductor was allowing the brakeman trainee to learn radio use and had just told him to tell the engineer to come back for another attempt at coupling. The brakeman turned toward the locomotives, relayed the conductor's instructions, looked back at the conductor and saw him impaled between the knuckles of the two cars.

Special Switching Hazard(s):

Possible Contributing Factor:
Possible Contributing Factor:
Possible Contributing Factor:
External Circumstances:

Miscellaneous

Employee on or fouling track
Failure to provide adequate space between equipment
Passed couplers
Too many students assigned to job

Day of Week: Thursday
Time of Fatal Event: 12:30 PM
Time on Duty (hours: minutes): 2:00
Temperature (Fahrenheit): 88
Direction of Movement: shoved
Crew's Next Move: couple
Death Result of Train Movement? yes
Track Type: yard/flat/classification
Hit by Own Equipment? yes
Striking Train Within Rules? yes
Speed of Equipment (mph): 3
Crew Size: 5
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes

No. 2 of 14: September 20, 1994 – ARR – Clear Site, AK

A three-person work train crew was shoving their train on the main line. The locomotive engineer was operating the locomotive and the brakeman and conductor were in the caboose. A tractor-trailer pulled over the crossing and was struck by the shove move, derailling the caboose and killing the brakeman.

Special Switching Hazard(s):

Possible Contributing Factor:
Possible Contributing Factor:
External Circumstances:

Struck by Motor Vehicle

Highway user inattentiveness
Highway user cited for violation of highway-rail grade crossing traffic laws
Highway user unawareness due to environmental factors (angle of sun, etc.)

Day of Week: Tuesday
Time of Fatal Event: 7:19 PM
Time on Duty (hours: minutes): 11:19
Temperature (Fahrenheit): 50
Direction of Movement: shoved
Crew's Next Move: shove cars
Death Result of Train Movement? yes
Other Movements Nearby? no
Track Type: main
Hit by Own Equipment? no
Speed of Equipment (mph): 19
Deceased Regular Job? no
Had Deceased Worked There Before? yes
Crew Size: 3
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes

No. 3 of 14: September 03, 1996 – DGNO – Dallas, TX

Yard switch crew, engineer, conductor and brakeman, while switching at an industry on a downhill grade experienced an unwanted run away car. While FE (brakeman) was in position on a car and setting a hand brake, the car started to roll away from the crew. FE continued to try to apply hand brake in an effort to stop the car. When discovering that the car was rolling away, the conductor attempted to slow and stop it by putting wood blocks under the wheels. The car accelerate to 30 to 35 mph. FE did not detrain before car collided with seven other cars at that speed. FE had three weeks experience.

SOFA Operating Recommendation(s):	5
Possible Contributing Factor:	Failure to properly secure hand brake on car(s)
Possible Contributing Factor:	Release lever would not set in the on position properly
Possible Contributing Factor:	Insufficient training
Day of Week:	Tuesday
Time of Fatal Event:	6:30 PM
Time on Duty (hours: minutes):	10:55
Temperature (Fahrenheit):	85
Direction of Movement:	free-running
Crew's Next Move:	spot cars
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	industrial/mainline
Hit by Own Equipment?	no
Striking Train Within Rules?	no
Speed of Equipment (mph):	25
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 4 of 14: September 14, 1999 – AM – Van Buren, AR

A two-person switching crew was in the process of shoving ten cars onto a clear track, with the intention of cutting three off, and pulling out the other seven out. The conductor counted down the cars via radio, and the engineer stopped one half-car lengths after the last radio transmission of one-half cars to go. Subsequently, the engineer discovered that the conductor had stepped in between the cars and had been coupled up.

SOFA Operating Recommendation(s):	1, 5
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Impairment of efficiency or judgment because of drugs or alcohol
Day of Week:	Tuesday
Time of Fatal Event:	3:00 PM
Time on Duty (hours: minutes):	8:00
Temperature (Fahrenheit):	84
Direction of Movement:	shoved
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/flat/industrial
Hit by Own Equipment?	yes
Crew Size:	2
Drugs Present?	yes
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 5 of 14: September 09, 2000 – BNSF – Keokuk, IA

While shoving one car into an industry site, and using radio communication, the switch foreman was run over by the leading wheel as the shove move continued until coupling was made.

SOFA Operating Recommendation(s):	4
Possible Contributing Factor:	Close or no clearance
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Radio communication, improper
External Circumstances:	Radio holster/suspenders may have been hooked by movement
Day of Week:	Saturday
Time of Fatal Event:	11:22 AM
Time on Duty (hours: minutes):	4:22
Temperature (Fahrenheit):	80
Direction of Movement:	shoved
Crew's Next Move:	pull car
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/industrial/spot(load/unload)/outside
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	4
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 6 of 14: September 02, 2002 – CSX – Madisonville, KY

A two-person road crew stopped at a yard to make a set-off. The conductor made the cut on his train, instructed the engineer to haul ahead to clear the switches into the yard, lined the switches into what he thought was Track 4 and told the engineer to begin backing the set off into the yard. The conductor was struck and killed by the leading end of the shove move as it entered Track 3.

Special Switching Hazard(s):	Unexpected Movement of Railcars
Possible Contributing Factor:	Radio communication, failure to comply
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Other general switching rules
Day of Week:	Monday
Time of Fatal Event:	4:05 AM
Time on Duty (hours: minutes):	5:35
Direction of Movement:	shoved
Death Result of Train Movement?	yes
Other Movements Nearby?	yes
Track Type:	yard/flat/classification
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	9
Deceased Regular Job?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 7 of 14: September 12, 2003 – GC – Dublin, GA

A two-person train crew was in the process of setting off and picking up cars in a small yard. The conductor, who had 8 weeks of experience, was killed when the leading car of the shove struck him as he stepped into its path.

SOFA Operating Recommendation(s):	5
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Shoving movement, man on or at leading end of movement, failure to control
Possible Contributing Factor:	Insufficient training
Day of Week:	Friday
Time of Fatal Event:	10:45 AM
Time on Duty (hours: minutes):	4:45
Temperature (Fahrenheit):	78
Direction of Movement:	shoved
Crew's Next Move:	shove cars into track
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/flat/lead
Hit by Own Equipment?	yes
Striking Train Within Rules?	yes
Speed of Equipment (mph):	1
Deceased Regular Job?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 8 of 14: September 14, 2003 – UP – Ogden, UT

A four-person yard switching crew had been working together and classifying cars into various tracks throughout the morning. The conductor was on the leading end of a two car free rolling cut of cars moving at 3 miles per hours when he fell from the leading end and was run over by the car he had been riding.

Special Switching Hazard(s):	Equipment
Possible Contributing Factor:	Employee falling from moving equipment
Possible Contributing Factor:	Other body defects (car) (requires a description)
Possible Contributing Factor:	Other body defects (car) (requires a description)
Day of Week:	Sunday
Time of Fatal Event:	1:15 PM
Time on Duty (hours: minutes):	6:15
Temperature (Fahrenheit):	69
Direction of Movement:	free-running
Crew's Next Move:	line switch
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/lead/flat/lead/classification
Hit by Own Equipment?	yes
Striking Train Within Rules?	yes
Speed of Equipment (mph):	2
Deceased Regular Job?	yes
Crew Size:	4
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 9 of 14: September 24, 2003 – BNSF – Fresno, CA

A three-person switching crew was shoving a cut of cars into a yard track and the switching foreman was riding the leading end of the 35 car cut. There was no air in the train line and the engineer was using engine brake to control the shove during the 50 car lengths of clear track to be shoved prior to making a coupling on other cars in the same track. Twenty cars into the move the foreman was either dislodged or fell from the leading end of the movement and was run over by the sixth head car of the shove.

Special Switching Hazard(s):

Miscellaneous

Day of Week:	Wednesday
Time of Fatal Event:	1:15 AM
Time on Duty (hours: minutes):	2:15
Temperature (Fahrenheit):	73
Direction of Movement:	shoved
Crew's Next Move:	couple
Death Result of Train Movement?	yes
Other Movements Nearby?	yes
Track Type:	yard/classification
Hit by Own Equipment?	yes
Speed of Equipment (mph):	5
Deceased Regular Job?	yes
Crew Size:	3
Emergency Response Procedures Followed?	yes

No. 10 of 14: September 02, 2004 – BNSF – Clovis, NM

(Information is preliminary, and not based on the investigation.)

A 28-year old switchman was killed when the tank car he was riding derailed during a shove move near Clovis, NM.

No. 11 of 14: September 20, 2004 – AA – Saline, MI

(Information is preliminary, and not based on the investigation.)

A 44-year old brakeman killed when crushed between track equipment and the car he was handling.

No. 12 of 14: September 10, 2006 – ALS – East St. Louis, IL

(Information is preliminary, and not based on the investigation.)

A two-person crew was in the process of making up a locomotive consist using two adjacent tracks. After having set over one of the locomotives, the conductor was riding the leading end of the two locomotives into the adjacent track when his hand signals went out of sight, the movement was stopped and the engineer went back to discover the conductor had been crushed between the locomotive he had just set out and the locomotive he was riding. **(Special Switching Hazard: Close Clearance)**

No. 13 of 14: September 10, 2008 – INRD – Terre Haute, IN

(Information is preliminary, and not based on the investigation.)

An employee was riding the leading end of a two car shove into an Industrial track when the car he was riding rode up on material build-up in the crossing, derailling the car into a pile of railroad track ties and crushing the employee to death.

No. 14 of 14: September 23, 2008 – CSX – Darby, PA

(Information is preliminary, and not based on the investigation.)

A 46-year-old conductor was securing his train on one main track when he was struck and killed by another train passing him on the adjacent main track.

Being Alert...Helps Prevent Being Hurt

Apply SOFA Operating Recommendations...Recognize Special Switching Hazards

16 October Switching Fatalities

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendations	Special Switching Hazard
1	10/15/92	BN	Omaha, NE	32	14	yard brakeman	other	other location	caught in or compressed by other machinery		Miscellaneous (open pit)
2	10/23/92	GTW	Dearborn, MI	49	28	road brakemen	standing	between tracks	collision between on-track equipment		Free-Rolling Railcars
3	10/19/93	SOO	Leal, ND	43	2	road brakemen	riding	on side of car	derailments	5	
4	10/17/94	UP	Donaldsonville, LA	36	16	road brakemen	crossing between	between cars/loc	sudden/unexpected movement of on-track equipment	1	
5	10/04/95	CSXT	Riverdale, IL	39	0.5	yard conductor	adjusting coupler	between cars/loc	struck by on-track equipment	1, 5	
6	10/07/96	UP	Eagle Pass, TX	35	10.1	yard conductor	adjusting coupler	between cars/loc	sudden/unexpected movement of on-track equipment	1, 5	
	10/16/97	MRL	Laurel, MT	22	0.8	yard brakeman	riding	between cars/loc	lost balance	5	
8	10/26/98	CCP	Cicero, IL	42	18	road engineer	standing	beside track	struck by on-track equipment		Miscellaneous
9	10/15/00	UP	Houston, TX	47	20	laborer, shop and engine house	getting on	other location on loc	struck against object	3	
10	10/10/01	PAL	Clayburn, KY	38	11	road conductor	riding	on side of car	struck against object		Close Clearance
11	10/04/04	NS	Harrisburg, PA	58	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
12*	10/07/04	UP	Springfield, IL	n/a	a/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
13*	10/07/04	BNSF	Teague, TX	60	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
14	10/13/06	UP	Pajaro, CA	n/a	n/a	(Information is preliminary, and not based on investigation)					Trip, Slip, Fall
15	10/27/07	CSX	Russell, TX	n/a	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
16	10/15/08	CSX	Decatur, AL	28	n/a	((Information is preliminary, and not based on investigation)					Special Switching Hazard

- Same day Fatalities

16 October Switching Fatality

No. 1 of 16: October 15, 1992 – BN – Omaha, NE

A three-person yard crew was in the process of spotting cars over a material unloading pit and after the first of the cars was spotted the switch foreman took the locomotive out of the plant building to get the other car for spotting. The switchman remained in the building, set a handbrake on the spotted car and awaited the return of the foreman with the engine and second car to be spotted. The switchman was killed when he ended up falling into the second pit and was crushed by the industrial machinery located within.

Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

Miscellaneous

Unprotected open pit

Grain dust

Day of Week:

Thursday

Time of Fatal Event:

1:25 AM

Time on Duty (hours: minutes):

1:55

Crew's Next Move:

spot load at pit

Death Result of Train Movement?

no

Track Type:

industrial/spot(load/unload)inside

Hit by Own Equipment?

no

Speed of Equipment (mph):

0

Deceased Regular Job?

yes

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

No

Emergency Response Procedures Followed?

yes

No. 2 of 16: October 23, 1992 – GTW – Dearborn, MI

A three-person train crew found it necessary to drop a car by and in doing so, the car hung up fouling the switch and blocking the locomotive into the track it had cleared up on. The crew decided to “stake” the car to clear the track in which the locomotive sat. This process requires a board or pole placed between the locomotive and car to move the car when it cannot be coupled to. The brakeman was killed when the board used slipped, the car started to move toward the locomotive and the brakeman was caught between the two pieces of equipment.

Special Switching Hazard(s):

Possible Contributing Factor:

External Circumstances:

Free-Rolling Railcars

Failure to provide adequate space between equipment

Unsafe commonly accepted operational practice

Day of Week:

Friday

Time of Fatal Event:

10:00 AM

Time on Duty (hours: minutes):

2:30

Direction of Movement:

shoved

Crew's Next Move:

line-up car

Death Result of Train Movement?

yes

Track Type:

yard/flat/lead/storage

Hit by Own Equipment?

yes

Striking Train Within Rules?

no

Speed of Equipment (mph):

1

Deceased Regular Job?

yes

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

No. 3 of 16: October 19, 1993 – SOO – Leal, ND

A three-person train crew was in the process of picking up 18 cars off a siding. The trainman had 10 weeks of experience, forgot to remove the derail, and was killed when the leading car he was riding derailed on top of him. During the stop, the conductor remained in the cab of the lead locomotive with the engineer.

SOFA Operating Recommendation(s):	5
Possible Contributing Factor:	Derail, failure to apply or remove
Possible Contributing Factor:	Insufficient training
Possible Contributing Factor:	Poor crew utilization
Day of Week:	Tuesday
Time of Fatal Event:	8:17 PM
Time on Duty (hours: minutes):	5:47
Temperature (Fahrenheit):	50
Direction of Movement:	shoved
Crew's Next Move:	make joint
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	siding
Hit by Own Equipment?	yes
Speed of Equipment (mph):	10
Deceased Regular Job?	no
Had Deceased Worked There Before?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 4 of 16: October 17, 1994 – UP – Donaldsonville, LA

Crew switching in class yard, brakeman attempted to cross between equipment separated by an insufficient distance, and engineer moved locomotive in the wrong direction, coupling him up.

SOFA Operating Recommendation(s):	1
Possible Contributing Factor:	Failure to provide adequate space between equipment
Possible Contributing Factor:	Radio communication, failure to comply
External Circumstances:	Improper reverser position
Day of Week:	Monday
Time of Fatal Event:	12:30 PM
Time on Duty (hours: minutes):	6:30
Temperature (Fahrenheit):	76
Direction of Movement:	shoved
Crew's Next Move:	pull ahead
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/classification/flat
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	1
Deceased Regular Job?	no
Had Deceased Worked There Before?	yes
Crew Size:	3
Emergency Response Procedures Followed?	yes

No. 5 of 16: October 04, 1995 – CSX – Riverdale, IL

Crew performing switching in class yard. Switch foreman placed himself between the rails to adjust a misaligned coupler on the fifteenth car after the cut was stretched. Switch foreman was facing the coupler with his back to a cut of seven cars that rolled in on top of him and coupled him up.

SOFA Operating Recommendation(s):	1, 5
Possible Contributing Factor:	Failure to provide adequate space between equipment
Possible Contributing Factor:	Insufficient training
External Circumstances:	Other train operation/human factors
Day of Week:	Wednesday
Time of Fatal Event:	12:40 AM
Time on Duty (hours: minutes):	1:10
Temperature (Fahrenheit):	80
Direction of Movement:	free-running
Crew's Next Move:	coupling
Death Result of Train Movement?	yes
Track Type:	yard/flat/classification
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	1
Deceased Regular Job?	no
Crew Size:	4
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 6 of 16: October 07, 1996 – UP – Eagle Pass, TX

Three-person crew was switching in class yard, locomotive failed to couple to cut of seven standing cars. Yard foreman used hand signals to separate the locomotive by twenty feet. While adjusting the locomotive drawbar, the seven cars rolled in and coupled him up.

SOFA Operating Recommendation(s):	1, 5
Possible Contributing Factor:	Failure to properly secure hand brake on car(s) railroad employee
Possible Contributing Factor:	Inoperable control due to bent rod
Possible Contributing Factor:	Hard to open knuckle on engine
Possible Contributing Factor:	Failure to provide adequate space between equipment
Day of Week:	Monday
Time of Fatal Event:	8:48 PM
Time on Duty (hours: minutes):	2:48
Direction of Movement:	free-running
Crew's Next Move:	shove cars
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	classification
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	1
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no

No. 7 of 16: October 16, 1997 – MRL – Laurel, MT

Yard switch crew, engineer, switch foreman and switchman, were shoving a cut 41 cars up a grade to a stop. While this was taking place the ground crew boarded the first two cars so they could apply the hand brakes. FE (switchman) fell off the first car while attempting this. This car was found to have a brake platform with a decreasing width. Under the hand brake this platform was found to be 2 inches under the required width over a length of about 30 inches. FE had 10 months experience.

SOFA Operating Recommendation(s):	5
Possible Contributing Factor:	Bent cross over platform under hand brake
Possible Contributing Factor:	Employee falling from moving equipment
External Circumstances:	Moving equipment
Day of Week:	Thursday
Time of Fatal Event:	10:20 PM
Time on Duty (hours: minutes):	6:20
Temperature (Fahrenheit):	63
Direction of Movement:	shoved
Crew's Next Move:	stop
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/flat/classification
Hit by Own Equipment?	yes
Striking Train Within Rules?	yes
Speed of Equipment (mph):	1
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no

No. 8 of 16: October 26, 1998 – CCP – Cicero, IL

An engineer, having just gone off duty, was distracted and subsequently struck and killed by a lite engine move being operated by a hostler. The hostler was operating the locomotive consist from the trailing end at the time and did not have anyone on the leading end when the engineer was struck.

Special Switching Hazard(s):	Miscellaneous
Possible Contributing Factor:	Failure to communicate unsafe condition
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Other general switching rules
Possible Contributing Factor:	Shoving movement, absence of a man on or at leading end of movement
External Circumstances:	Momentarily distracted
Day of Week:	Monday
Time of Fatal Event:	8:55 AM
Time on Duty (hours: minutes):	11:55
Temperature (Fahrenheit):	60
Direction of Movement:	shoved
Crew's Next Move:	tie up
Death Result of Train Movement?	yes
Other Movements Nearby?	yes
Track Type:	yard/flat/service
Hit by Own Equipment?	no
Striking Train Within Rules?	no
Speed of Equipment (mph):	5
Deceased Regular Job?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 9 of 16: October 15, 2000 – UP – Houston, TX

Employees failed to discuss movement, resulting in employee falling from locomotive platform and being rolled between the locomotive and the elevated walkway.

SOFA Operating Recommendation(s):	3
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Close or no clearance
External Circumstances:	Non-compliance of federal Hours of Service Regulations
Day of Week:	Sunday
Time of Fatal Event:	4:50 AM
Time on Duty (hours: minutes):	13:50
Temperature (Fahrenheit):	72
Direction of Movement:	shoved
Crew's Next Move:	spot locomotive
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/hump/service/inspect
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	5
Deceased Regular Job?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 10 of 16: October 10, 2001 – PAL – Clayburn, KY

A three-person, local freight train crew was switching a plant and had 2 engines 6 cars and a caboose when they moved over a small bridge and coupled to 5 standing cars in the storage track. The conductor made the coupling and told the engineer to pull the cars out of the track. The conductor got on the side of the trailing end of the second last car in the cut and was knocked off the car by a metal pole adjacent to the storage track. He fell between the car he was riding and the last car in the cut being pulled. He died when the lead wheels of the last car rolled over him.

Special Switching Hazard(s):	Close Clearance
Possible Contributing Factor:	Close or no clearance
Possible Contributing Factor:	Employee physical condition, other
Possible Contributing Factor:	Other general switching rules
Day of Week:	Wednesday
Time of Fatal Event:	1:05 PM
Time on Duty (hours: minutes):	9:05
Direction of Movement:	pulled
Crew's Next Move:	switch plant
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	main/industrial/spot(load/unload)/outside
Hit by Own Equipment?	yes
Striking Train Within Rules?	yes
Speed of Equipment (mph):	6
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

**No. 11 of 16: October 04, 2004 – NS – Harrisburg, PA
(Information is preliminary, and not based on the investigation.)**

A conductor age 58 was struck and killed by a shove move performed by another crew when he stepped in front of the leading end of the move.

**No. 12 of 16: October 07, 2004 – UP – Springfield, IL
(Information is preliminary, and not based on the investigation.)**

A student trainman was killed while walking along side a shove move. Several cars derailed, one landing on the trainman. **(preliminary pending further review)**

**No. 13 of 16: October 07, 2004 – BNSF – Teague, TX
(Information is preliminary, and not based on the investigation.)**

A trainman age 60 was killed when cars he was between moved.

**No. 14 of 16: October 13, 2006 – UP – Pajaro, CA
(Information is preliminary, and not based on the investigation.)**

A two-person crew, performing switching operations with a remote control locomotive, were in the process of shoving three cars with the intent of cutting them off and letting them free roll into a track at Watsonville Junction. The two men were working on opposite sides of the on-track movement. The cars were cut off, the conductor noticed something under the cars and, upon further investigation determined that his helper had been run over. **(Special Switching Hazard: Tripping, Slipping, Falling)**

**No. 15 of 16: October 27, 2007 – CSX – Russell, KY
(Information is preliminary, and not based on the investigation.)**

A yard foreman was crushed and killed while riding the leading end of a 5 locomotive consist when it passed through a mis-aligned crossover switch and collided with a standing train on an adjacent track

**No. 16 of 16: October 15, 2008 – CSX – Decatur, AL
(Information is preliminary, and not based on the investigation.)**

A 28-year-old conductor was riding a shove move into a track when the opposite side of the car he was riding struck the corner of the leading end of his train causing the car he was riding, and others to derail crushing the conductor under the derailed cars.

Being Alert...Helps Prevent Being Hurt
Apply SOFA Operating Recommendations...Recognize Special Switching Hazards

9 November Switching Fatalities

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendations	Special Switching Hazard
1	11/16/92	TTIS	Maysville, KY	35	13	road conductor	standing	between cars/loc	collision between on-track equipment		Miscellaneous
2	11/12/93	ATSF	Farewell, TX	41	21	road conductor	riding	on side of car	struck by on-track equipment		Unsecured Cars and Drugs and Alcohol
3	11/13/93	GC	Macon, GA	47	1	yard conductor		on track	struck by on-track equipment	3, 5	
4	11/10/94	PTRA	Houston, TX	31	0.5	yard brakeman	activity not witnessed	industrial chipper	caught in or compressed by other machinery	5	
5	11/15/94	CR	Painted Post, NY	57	38	road brakemen	standing	on track	struck by on-track equipment	3, 4	
6	11/17/99	UP	Lincoln, NE	57	35	road brakemen	walking	on track	struck by on-track equipment		Unexpected Movement of Railcars
7	11/01/04	BNSF	Bowdoin, MT	47	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
8	11/16/05	CSX	Lugoff, SC	47	n/a	(Information is preliminary, and not based on investigation)					Special Switching Hazard
9	11/15/08	MLR	Laurel, MT	39	n/a	(Information is preliminary, and not based on investigation)				1	

Being Alert...Helps Prevent Being Hurt

Apply SOFA Operating Recommendations...Recognize Special Switching Hazards

No. 1 of 9: November 16, 1992 – TTIS – Maysville, KY

A two-person train crew was taking a coal train down a 3 percent grade and through an eight-degree curve when the train separated at the 17th head car. The cause of the separation was a broken knuckle. To remove the partially broken knuckle, the conductor decided that he had to impact the standing cars with the 17 head cars. On his third attempt, the couplers by-passed and the corners of the 18th and 17th head cars came together at the push pole pads crushing the conductor between them.

Special Switching Hazard(s):

Possible Contributing Factor:

External Circumstances:

Miscellaneous

Employee on or fouling track

Jammed knuckle pin

Day of Week:	Monday
Time of Fatal Event:	6:05 PM
Time on Duty (hours: minutes):	4:05
Temperature (Fahrenheit):	45
Direction of Movement:	shoved
Crew's Next Move:	replace knuckle
Death Result of Train Movement?	yes
Track Type:	main
Hit by Own Equipment?	yes
Striking Train Within Rules?	yes
Speed of Equipment (mph):	1
Deceased Regular Job?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 2 of 9: November 12, 1993 – ATSF – Farewell, TX

A three-person industrial switching crew had been working together to get the switches lined and the derail off in preparation for a shove move into the plant. The conductor was on the leading end of the lead car and the brakeman was on the trailing end of the same car. The conductor was crushed by a car he had set out without setting a hand brake. The car rolled into a car he and his brakeman were riding and impairment (drugs) contributed to the fatality.

Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

External Circumstances:

Unsecured Cars and Drugs and Alcohol

Failure to apply handbrakes on car(s)

Failure to couple

Impairment of efficiency or judgment because of drugs or alcohol

Day of Week:	Friday
Time of Fatal Event:	6:40 AM
Time on Duty (hours: minutes):	5:55
Direction of Movement:	shoved
Crew's Next Move:	spot car
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	main/industrial
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	4
Crew Size:	3
Drugs Present?	yes
Drugs a Factor?	yes

No. 3 of 9: November 13, 1993 – GC – Macon, GA

Trainmaster became involved with crew performing switching in class yard without knowledge of the conductor who was coupling air hoses on a cut of cars. Cars were shoved without his knowledge while he was in the foul of the movement. Movement ran over conductor and killed him.

SOFA Operating Recommendation(s):	3, 5
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Employee on or fouling track
External Circumstances:	Train master assisted crew
Day of Week:	Saturday
Time of Fatal Event:	8:30 AM
Time on Duty (hours: minutes):	0:30
Temperature (Fahrenheit):	50
Crew's Next Move:	pull another track
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/flat/classification
Hit by Own Equipment?	yes
Speed of Equipment (mph):	1
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no

No. 4 of 9: November 10, 1994 – PTR A – Houston, TX

Yard switch crew, engineer, conductor and brakeman, spotting paper mill. FE (brakeman) instructed by conductor to de-train and stay at road crossing while he spotted track. FE found in nearby wood chip auger/conveyer system after mill crew started up the system while crew searched for missing FE. Mill crew was instructed by conductor not to start equipment until FE was located. FE was not familiar with the dangers associated with this mill process. FE had 5 months experience.

SOFA Operating Recommendation(s):	5
Possible Contributing Factor:	Insufficient training
Possible Contributing Factor:	Failure to follow instructions
Day of Week:	Thursday
Time of Fatal Event:	4:15 AM
Time on Duty (hours: minutes):	4:16
Temperature (Fahrenheit):	70
Track Type:	industrial/spot(load/unload)/outside
Speed of Equipment (mph):	0
Deceased Regular Job?	no
Had Deceased Worked There Before?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	Yes

No. 5 of 9: November 15, 1994 – CR – Painted Post, NY

Crew switching in class yard failed to establish and maintain effective communications. Subsequent changes in switching line-up by the conductor resulted in trainman who was in the foul of Track 7 being struck by unexpected movement of equipment.

SOFA Operating Recommendation(s):	3, 4
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Failure to comply with restricted speed
Day of Week:	Tuesday
Time of Fatal Event:	9:35 AM
Time on Duty (hours: minutes):	1:35
Temperature (Fahrenheit):	55
Direction of Movement:	shoved
Crew's Next Move:	couple track
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/classification/flat
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	6
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 6 of 9: November 17, 1999 – UP – Lincoln, NE

A three-person local switching crew had cut away from their train on the main track and proceeded to pull by the switch providing access to a clear track. The brakeman was at the switch and the conductor had removed the derail from the clear track and was awaiting the shove move at the point where the cut would be made. Meanwhile, the brakeman, who was to have gotten the switch from the main to the clear track, was walking between the gauge of the mainline track toward the remaining portion of his train. The conductor saw the cars being shoved toward the remaining portion of his train and shouted to the brakeman and then to the engineer to stop. The brakeman with his back to the move was hit and run over by the leading car of the shove.

Special Switching Hazard(s):	Unexpected Movement of Railcars
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Switch improperly lined
Possible Contributing Factor:	Employee physical condition, other
External Circumstances:	Other extreme environmental condition
Day of Week:	Wednesday
Time of Fatal Event:	12:40 PM
Time on Duty (hours: minutes):	5:40
Temperature (Fahrenheit):	65
Direction of Movement:	shoved
Crew's Next Move:	make joint
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	main
Hit by Own Equipment?	yes
Striking Train Within Rules?	yes
Speed of Equipment (mph):	7
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

No. 7 of 9: November 01, 2004 – BNSF – Bowdoin, MT

(Information is preliminary, and not based on the investigation.)

A conductor stopped on a siding track to meet an opposing train. Conductor detrained to perform a roll-by inspection of a passing train. Conductor stepped off his train and was apparently struck by the opposing train.

No. 8 of 9: November 16, 2005 – CSX – Lugoff, SC

(Information is preliminary, and not based on the investigation.)

A 47-year-old conductor was killed during an industrial switching operation. The brakeman, who was uncoupling cars, requested more slack from the engineer, while the conductor was getting the numbers of cars previously switched. Shortly thereafter, the conductor was found crushed between the knuckles of those cars.

No. 9 of 9: November 15, 2008 – MRL – Laurel, MT

(Information is preliminary, and not based on the investigation.)

A 39-year-old brakeman was assisting his conductor (assistant engineer) in making air hoses and joints on track 11. The brakeman was working from one end of the track and the conductor was working from the other end. When communication between the two ground men failed, the conductor walked back and found the brakeman lying between the rails. He had been struck and killed by a block of his own free-rolling cars.

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