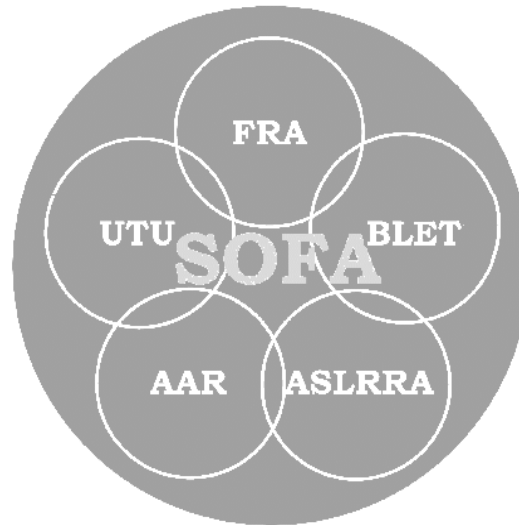


Please Post Immediately

***Make Switching Fatality Free:
Apply SOFA Operating Recommendations – Recognize Special Switching Hazards***



May 2006 Switching Fatality and Severe Injury Update

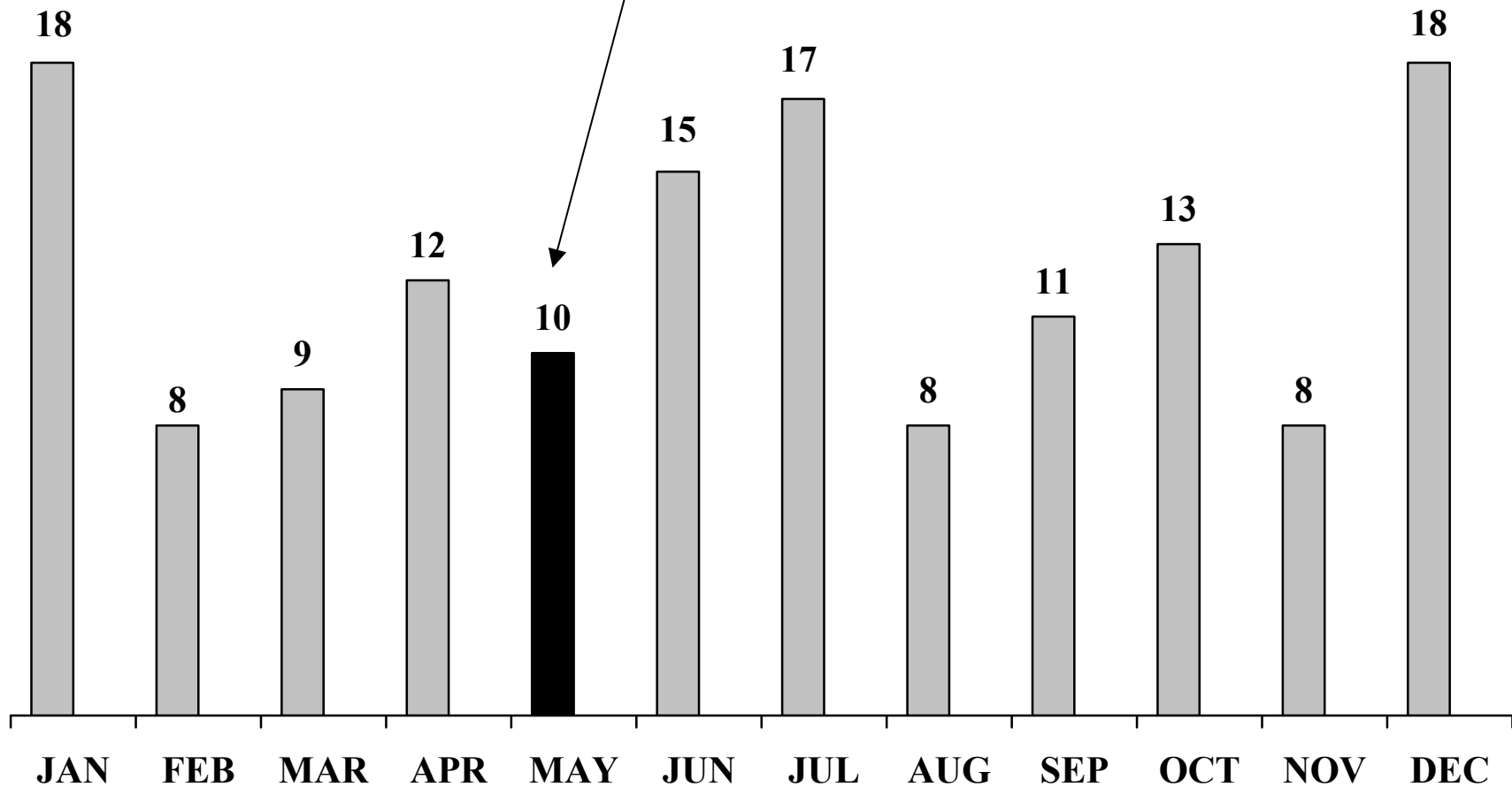
(Feel free to use, reproduce, and circulate this information in your safety efforts.)

The SOFA Working Group

Comprised of union, management, and government representatives, the SOFA Working Group is trying to *Make Switching Fatality Free* through education and monthly dissemination of information on how Fatalities occur – and how such events, averaging 10.4 per year (a rate of one Fatality every 35 days), can be prevented.

10 Switching Fatalities in May since 1992

There is always risk to employees engaged in switching

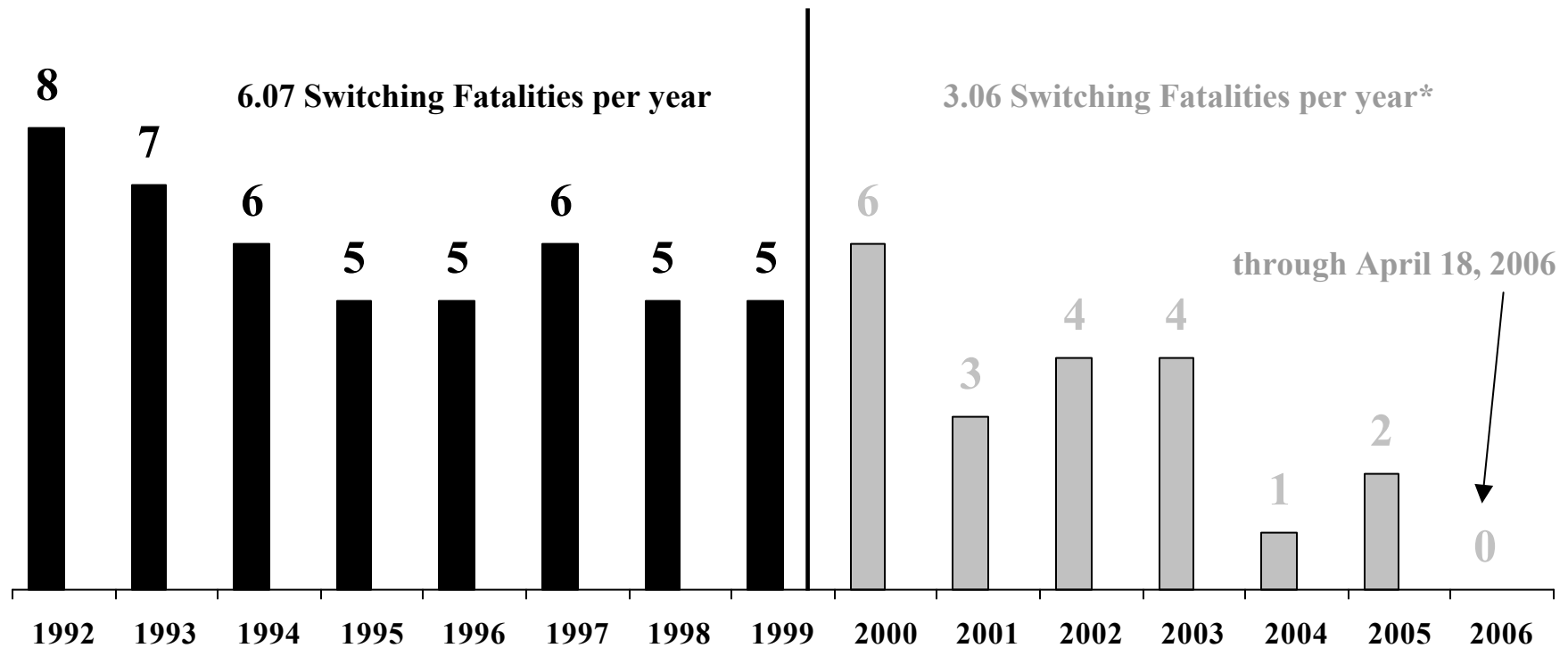


**10.4 Switching Fatalities occur on average each year
– a Switching Fatality every 35 days!**

49.6 percent Decline in Operating Recommendation Fatality Rate (6.07 v. 3.06)

The original *SOFA Report*¹ was released in October 1999. Prior to the release, there were 47 Switching Fatalities related to the Five Operating Recommendations in the 7.75-year period January 1992 through September 1999. Expressed as a rate, there were 6.07 Switching Fatalities per year related to Operating Recommendations.

In the post-SOFA Report period of 6.54 years, October 1, 1999 through April 18, 2006, there were 20 Switching Fatalities related to the Five Operating Recommendations. Expressed as a rate, there were 3.06 Switching Fatalities per year* related to Operating Recommendations.



* The Switching Fatality at Burlington, IA, on December 4, 2005, is believed to involve a Close Clearance Special Switching Hazard. If further review by the SOFA Working Group determines one or more Operating Recommendations were involved, the Switching Fatality rate after the release of the *SOFA Report* would increase from 3.06 to 3.21.

¹ *Findings and Recommendations of the SOFA Working Group*. October 1999. Available at <http://www.fra.dot.gov/us/content/102>

Recognize 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.

- 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
- Other Special Hazards or Events

* 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. Available at: <http://www.fra.dot.gov/us/content/102>

10 May Switching Fatalities

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendations	Special Switching Hazard
1	05/22/93	ATSF	El Paso, TX	46	27	yard conductor	standing	near on-track equip-on ground	collision/impact-auto, truck, bus, van, etc.		Other Special Hazards or Events
2	05/03/95	CSXT	Evansville, IN	52	32	yard conductor	standing	between tracks	struck by on-track equipment	2	
3	05/26/98	BRC	Bedford Park, IL	57	36	yard conductor	adjusting coupler	on track	sudden/unexpected movement of on-track equipment	1	
4	05/19/99	NS	Cincinnati, OH	36	1	road conductor	riding	other location on loc	collision between on-track equipment	5	
5	05/22/00	CSX	Richmond, VA	38	2	road brakemen	riding	on side of car	struck against object		Close Clearance
6	05/31/00	UP	Pine Bluff, AR	47	2	yard conductor	riding	other location on loc	collision between on-track equipment		Other Special Hazards or Events
7	05/14/02	UP	Pine Bluff, AR	53	2.5	yard brakeman	adjusting coupler	on track	struck by on-track equipment	1	
8	05/13/04	MSO	Sturgis, MI	38	--	To be reviewed by SOFA Working Group					Special Switching Hazard
9	05/18/04	NS	Elwood, IN	35	--	To be reviewed by SOFA Working Group					Special Switching Hazard
10	05/13/05	DCRR	Detroit, MI	24	--	To be reviewed by SOFA Working Group					Special Switching Hazard

Two May Switching Fatalities involved SOFA Operating Recommendation 1

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.

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.

SOFA Operating Recommendations are important: a switching operation omitting one or more appropriate Recommendations, and leading to a Fatality – cannot be undone.

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.

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.

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.

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.

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 1 of 10: May 22, 1993 – ATSF – El Paso, TX

A three-person switching crew was in the process of shoving cars into a track in the TOFC yard. The switch foreman was directing the move when he was struck from behind by the left front fender of a hostler truck and run over by its rear wheels.

Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

Other Special Hazards or Events

Highway user inattentiveness

Interference (other than vandalism) with railroad operations by non-railroad employee

Day of Week:

Saturday

Time of Fatal Event:

10:30 AM

Time on Duty (hours: minutes):

4:00

Temperature (Fahrenheit):

82

Crew's Next Move:

spot cars

Death Result of Train Movement?

no

Track Type:

spot(load/unload)/outside/stub track

Hit by Own Equipment?

no

Speed of Equipment (mph):

0

Crew Size:

3

Emergency Response Procedures Followed?

yes

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 2 of 10: May 03, 1995 – CSX – Evansville, IN

Conductor was struck and killed by a shove move on the track adjacent to where he was working. Communication about the move on that adjacent track had been conveyed to the conductor via the "bleeder," a utility type employee.

SOFA Operating Recommendation(s):	2
Possible Contributing Factor:	Employee on or fouling track
External Circumstances:	Two radio channels used
Day of Week:	Wednesday
Time of Fatal Event:	5:55 PM
Time on Duty (hours: minutes):	3:00
Temperature (Fahrenheit):	60
Direction of Movement:	shoved
Crew's Next Move:	switch car
Death Result of Train Movement?	yes
Other Movements Nearby?	yes
Track Type:	yard/lead/classification
Hit by Own Equipment?	no
Speed of Equipment (mph):	5
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 3 of 10: May 26, 1998 – BRC – Bedford Park, IL

Crew was working in one track in class yard with helper controlling engine moves, conductor was adjusting coupler when three free rolling cars struck him from behind and coupled him up.

SOFA Operating Recommendation(s):	1
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Instructions to train/yard crew improper
Possible Contributing Factor:	Failure to apply handbrakes on car(s)
Possible Contributing Factor:	Failure to provide adequate space between equipment
Day of Week:	Tuesday
Time of Fatal Event:	7:33 AM
Time on Duty (hours: minutes):	1:03
Temperature (Fahrenheit):	8
Direction of Movement:	free-running
Crew's Next Move:	couple track
Death Result of Train Movement?	no
Track Type:	yard/hump/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
Emergency Response Procedures Followed?	yes

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 4 of 10: May 19, 1999 – NS – Cincinnati, OH

A conductor with one year of service was riding in the stairwell of the leading locomotive. He was directing the move by radio when he realized too late that the move would not clear the standing equipment. He was crushed between the handrail of his locomotive and the standing locomotive.

SOFA Operating Recommendation(s):	5
Possible Contributing Factor:	Car left afoul
Possible Contributing Factor:	Shoving movement, man on or at leading end of movement, failure to control
External Circumstances:	Lack of defined foul point
Day of Week:	Wednesday
Time of Fatal Event:	5:30 PM
Time on Duty (hours: minutes):	1:50
Temperature (Fahrenheit):	70
Direction of Movement:	shoved
Crew's Next Move:	couple to train
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/flat/lead
Hit by Own Equipment?	yes
Speed of Equipment (mph):	7
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

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 5 of 10: May 22, 2000 – CSX – Richmond, VA

A three-person road switching crew was in the process of spotting loaded coal cars at a unloading facility that was equipped with a “shaker” that helped empty each car. The shaker’s position causes a close clearance condition. The conductor was riding one side of the leading coal car and the brakeman was riding the other. Although having a clear view of the fouling equipment, the brakeman did not get off the car as the conductor had expected and was crushed between it and the fouling shaker equipment.

Special Switching Hazard(s):	Close Clearance
Possible Contributing Factor:	Close or no clearance
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Failure to communicate unsafe condition
Possible Contributing Factor:	Shoving movement, man on or at leading end of movement, failure to control
External Circumstances:	Close clearance
Day of Week:	Monday
Time of Fatal Event:	11:30 AM
Time on Duty (hours: minutes):	10:30
Temperature (Fahrenheit):	70
Direction of Movement:	shoved
Crew's Next Move:	spot cars
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	main/industrial/spot(load/unload)/outside
Hit by Own Equipment?	no
Striking Train Within Rules?	no
Speed of Equipment (mph):	1
Deceased Regular Job?	no
Had Deceased Worked There Before?	no
Crew Size:	3

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 6 of 10: May 31, 2000 – UP – Pine Bluff, AR

A three-person yard switching crew was in the process of moving their light locomotives through a series of crossover switches however, the switchman had gone to the yard office for another list of cars to switch and the foreman, who had two (2) years of service, was directing the lite engine move by radio. The foreman told the engineer to stop, the foreman got off the leading end of the lead locomotive to line switches, he then told the engineer to continue backing up. Shortly thereafter, the foreman was crushed in a side collision between the locomotive consist he was directing and other cars standing on an adjacent track.

Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

Other Special Hazards or Events

Switch improperly lined

Shoving movement, man on or at leading end of movement, failure to control

Day of Week:

Wednesday

Time of Fatal Event:

3:15 AM

Time on Duty (hours: minutes):

3:16

Temperature (Fahrenheit):

70

Direction of Movement:

shoved

Crew's Next Move:

couple to track

Death Result of Train Movement?

yes

Other Movements Nearby?

no

Track Type:

hump/rec/dept

Hit by Own Equipment?

no

Striking Train Within Rules?

no

Speed of Equipment (mph):

1

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 7 of 10: May 14, 2002 – UP – Pine Bluff, AR

The switchman of a three-person yard switching crew asked the engineer to stretch a track. Noticing that there was a separation between the fourth and fifth head cars, the switchman went in to align the couplers. The switchman was coupled up when unsecured cars rolled in on him.

SOFA Operating Recommendation(s):	1
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Failure to apply handbrakes on car(s)
Possible Contributing Factor:	Failure to provide adequate space between equipment
Possible Contributing Factor:	Poor crew utilization
Day of Week:	Tuesday
Time of Fatal Event:	8:40 AM
Time on Duty (hours: minutes):	1:40
Temperature (Fahrenheit):	61
Direction of Movement:	free-running
Crew's Next Move:	couple track
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/hump
Hit by Own Equipment?	yes
Speed of Equipment (mph):	1
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

May Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

No. 8 of 10: May 13, 2004 – MSO – Sturgis, MI (To be reviewed by SOFA Working Group)

A 38-year-old conductor was killed when he apparently slipped and fell from a car he was riding.

No. 9 of 10: May 18, 2004 – NS – Elwood, IN (To be reviewed by SOFA Working Group)

A 35-year-old brakeman, with 6-years of service, was killed when the lead car he was riding was struck by a tractor-trailer.

No. 10 of 10: May 13, 2005 – DCRR – Detroit, MI (To be reviewed by SOFA Working Group)

A 24-year-old conductor died of injuries sustained when the car he was riding derailed. He was crushed between the car and a cement abutment.

**10.4 Switching Fatalities occur on average each year
– a Switching Fatality every 35 days!**

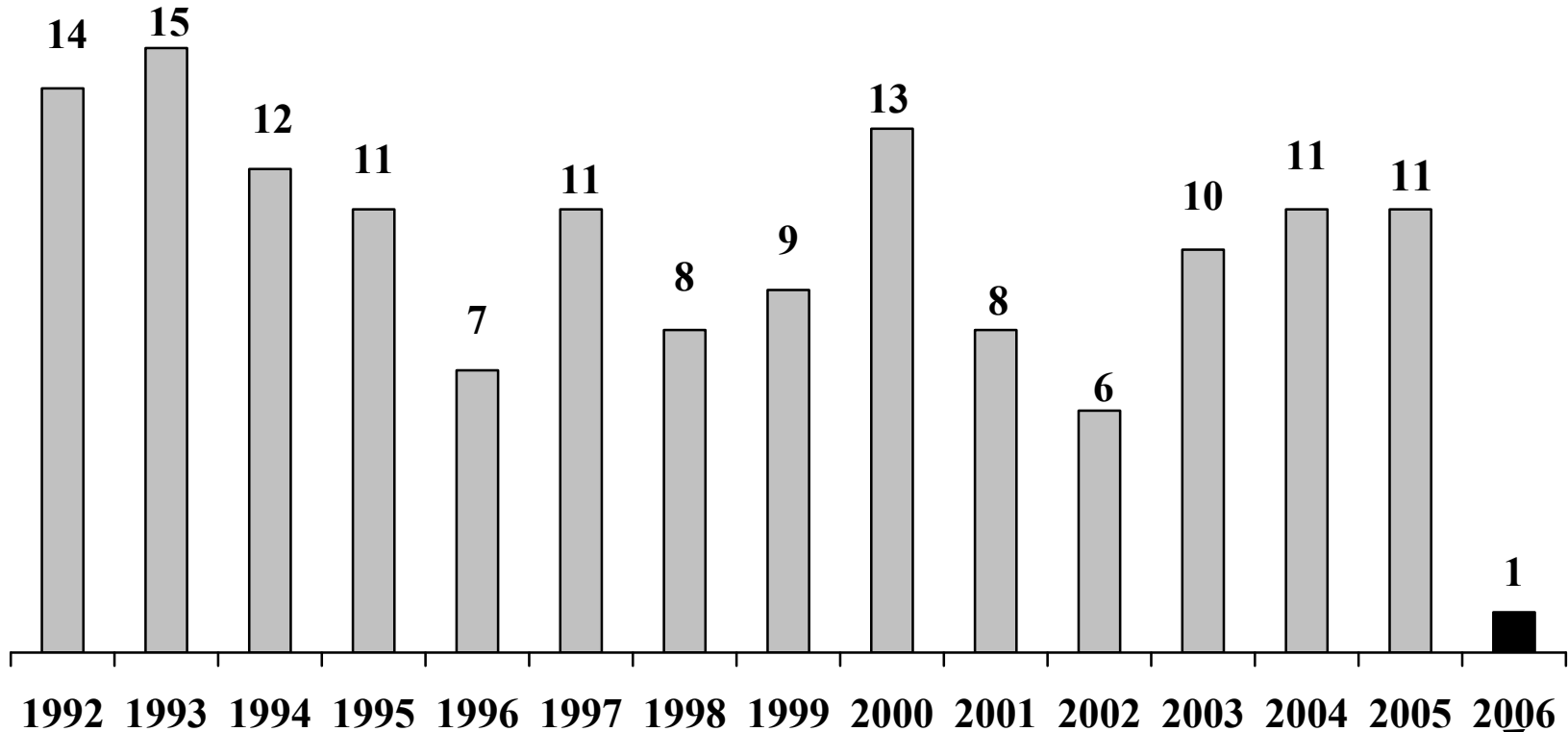
***Make Switching Fatality Free:
Apply SOFA Operating Recommendations – Recognize Special Switching Hazards***

147 Switching Fatalities Since 1992

Last Two Switching Fatalities

December 4, 2005 at Burlington, IA: A Burlington Northern Santa Fe (BNSF) brakeman, riding the side of a car into an area posted as “close clearance,” was killed when he was crushed between the car he was riding and a steel walkway support beam.

April 2, 2006 at Marquette, MI: A Lake Superior and Ishpeming (LSI) conductor was run over by his train and killed after falling from the leading end of the shove move.



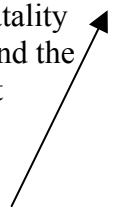
through April 18, 2006

Ranking of Switching Fatality Free Days, January 28, 1992 through April 2, 2006

Current thought April 18, 2006

	Fatality Occurring on	Switching Fatality Free Days	Fatality Occurring on	Switching Fatality Free Days	Fatality Occurring on	Switching Fatality Free Days	Fatality Occurring on	Switching Fatality Free Days
	01/28/92	--	06/01/92	52	09/02/02	24	05/31/00	8
	02/11/03	161	07/05/05	52	11/01/04	24	10/23/92	7
	03/27/93	130	04/11/03	51	11/16/92	23	08/11/93	6
	06/06/97	123	03/03/01	50	11/12/93	23	12/13/94	6
	04/02/06	118	10/19/93	46	11/10/94	23	02/24/95	6
	10/26/98	116	12/02/97	46	07/18/97	23	04/09/99	6
	05/26/98	110	01/02/00	45	12/26/97	23	03/02/95	5
	09/02/04	106	12/17/04	45	01/10/05	23	06/01/98	5
	03/20/96	96	04/02/99	43	08/15/05	23	01/04/94	4
	07/13/01	95	04/21/00	42	08/08/02	22	11/15/94	4
	10/10/01	88	03/11/92	40	12/05/93	21	02/16/03	4
	06/15/96	86	05/19/99	39	07/07/96	21	05/18/04	4
	03/21/02	86	05/22/93	38	09/02/93	20	04/11/05	4
	07/05/94	83	07/15/93	37	12/06/94	20	01/18/94	3
	09/14/99	82	01/14/04	37	08/04/93	19	02/02/97	3
	10/15/92	81	02/17/95	36	03/21/95	18	06/05/98	3
	04/12/94	81	07/07/00	36	06/20/92	17	07/28/00	3
	08/26/03	80	10/15/00	35	06/24/97	17	07/22/05	3
	07/21/95	78	04/08/01	35	09/20/04	17	06/07/93	2
	12/04/05	78	06/23/99	34	07/07/92	16	12/14/95	2
	09/20/94	76	10/07/96	33	07/24/92	16	10/07/04	2
	10/04/95	74	06/16/02	32	04/13/93	16	01/30/92	1
	12/28/00	73	05/13/05	31	01/29/97	16	01/20/94	1
	12/07/03	73	09/16/05	31	07/24/00	16	12/18/96	1
	12/22/01	72	05/22/00	30	09/12/03	16	12/24/01	1
	12/16/96	69	07/16/02	29	04/06/95	15	02/18/03	1
	04/06/05	69	04/09/92	28	01/26/05	15	09/14/03	1
	12/11/95	67	01/11/95	28	01/12/99	14	06/01/92	0
	03/09/00	66	01/24/98	28	08/11/00	13	06/02/92	0
	11/17/99	63	09/09/00	28	10/04/04	13	07/25/92	0
	05/13/04	63	08/15/97	27	06/04/93	12	08/12/93	0
	12/28/98	62	10/17/94	26	07/18/05	12	11/13/93	0
	10/16/97	61	05/03/95	26	01/10/01	11	06/24/97	0
	09/03/96	57	07/01/98	25	02/04/98	10	12/29/00	0
	06/06/03	55	02/17/99	25	01/14/94	9	01/11/01	0
	03/10/04	55	12/30/93	24	01/22/99	9	10/07/04	0
	05/14/02	53	01/12/97	24	09/24/03	9		

118 Switching Fatality Free Days occurred between the last Fatality at Marquette, MI and the previous Fatality at Burlington, IA on December 4, 2005.



118 Switching Fatality Free Days is the fourth longest period since 1992.

1 Switching Fatality in 2006

current as of April 16, 2006



SOEA Working Group

Apply SOEA Operating Recommendations — Recognize Special Switching Hazards

April 2, 2006 at Marquette, MI: A Lake Superior and Ishpeming (LSI) conductor was run over by his train and killed after falling from the leading end of the shove move.

SOFA-defined Severe Injuries

January 1992 to January 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	totals	average
JAN	11	13	16	15	21	12	11	11	20	8	138	13.8
FEB	17	15	9	9	9	13	17	14	11		114	12.7
MAR	14	12	17	11	10	10	13	10	9		106	11.8
APR	8	10	6	10	12	6	9	13	10		84	9.3
MAY	6	12	8	8	12	14	9	6	6		81	9.0
JUN	9	10	8	11	8	5	10	9	7		77	8.6
JUL	9	14	10	8	10	7	6	10	5		79	8.8
AUG	13	10	11	14	8	10	7	14	10		97	10.8
SEP	10	11	15	10	20	12	5	4	9		96	10.7
OCT	12	12	16	10	5	11	9	7	11		93	10.3
NOV	12	9	12	11	13	14	10	10	12		103	11.4
DEC	18	9	7	22	12	9	8	15	12		112	12.4
totals	139	137	135	139	140	123	114	123	122		1,180	

138.0 Severe Injuries occurred on average per year from 1997 through 2001.

120.5 Severe Injuries occurred on average per year from 2002 through 2005.

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/102>

Amputations

A type of SOFA-defined Severe Injuries

Amputations are shown separately because of the extreme trauma to employees engaged in switching, and the potential for permanent occupational limitations.

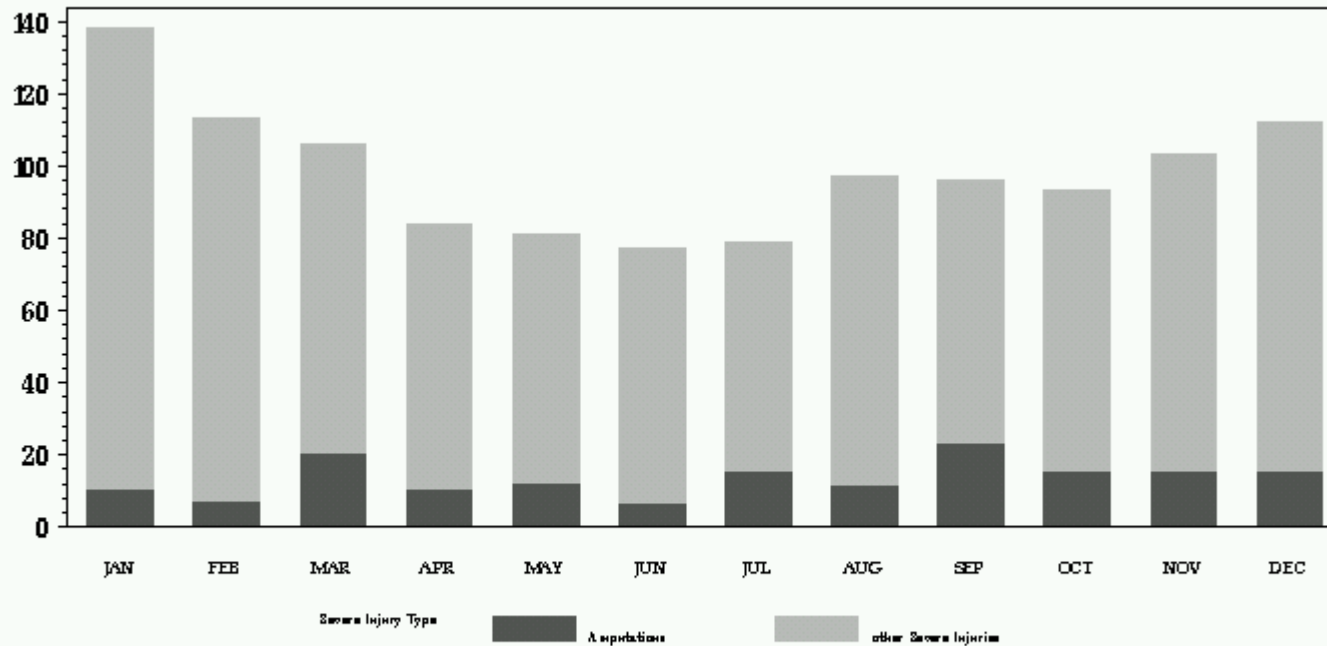
January 1992 to January 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	totals	average
JAN	1	0	2	1	0	0	2	2	2	0	10	1.0
FEB	0	1	0	1	0	2	1	2	0		7	0.8
MAR	3	4	3	2	1	1	3	1	2		20	2.2
APR	1	2	0	1	2	0	1	1	2		10	1.1
MAY	1	2	3	0	2	2	2	0	0		12	1.3
JUN	2	1	1	0	1	0	0	1	0		6	0.7
JUL	1	5	1	0	4	0	1	2	1		15	1.7
AUG	1	0	1	4	0	1	0	2	2		11	1.2
SEP	2	4	3	2	5	4	0	0	3		23	2.6
OCT	2	5	2	2	0	0	2	2	0		15	1.7
NOV	2	2	2	2	3	0	1	1	2		15	1.7
DEC	4	1	0	4	1	1	2	1	1		15	1.7
totals	20	27	18	19	19	11	15	15	15		159	

20.6 Amputations occurred on average per year from 1997 through 2001.

14.0 Amputations occurred on average per year from 2002 through 2005.

Severe Injuries and Amputations by Month, January 1997 through January 2006



1,180 Severe Injuries occurred from January 1997 through December 2005
 (Severe Injuries included 139 Amputations — 11.8 percent)