

3. SWITCHING FATALITIES AND OPERATING RECOMMENDATIONS

3.1 Reviewing Switching Fatalities

The SOFA Working Group (SWG) continues to review each switching fatality after the FRA's investigation is complete. Information from each investigation, along with information from other sources, is entered into a database, 'the SOFA Matrix.' The SWG has reviewed all of the 124 fatalities occurring from January 1992 through December 2003. An important step of each review is determining if one or more Operating Recommendations apply. If no Operating Recommendations apply, the fatality case is classified under the appropriate Special Switching Hazard.

3.2 Classifying the 124 Switching Fatality Cases

By classifying fatalities by Operating Recommendations, the SWG can determine if switching fatalities are following similar patterns, or if new event sequences have developed. In determining if new event sequences are occurring, it is helpful first to divide the fatality cases into two groups. The first group contains fatalities that apply to Operating Recommendations. The second group - Special Switching Hazards - contains fatalities to which no Operating Recommendation applies.

Operating Recommendation Cases

Of the 124 switching fatalities, 64 involve one or more Recommendations – 52 percent as shown in Table 3-1. Note that because a fatality case can involve more than one Recommendation, as 16 of the 64 fatality cases do, the number of Recommendations cited by the SWG is greater than the number of cases that have Recommendations applying. Two of the 16 cases involved 3 Operating Recommendations each; the other 14 cases involved 2 Recommendations each.

The SWG firmly believes that switching fatalities directly related to the Five Operating Recommendations will be reduced when all parties accept and operate according to these Recommendations. The SWG encourages compliance with the Operating Recommendations and all other safety rules.

Table 3-1. Sixty-Four Switching Fatalities Involving Operating Recommendations

Lifesaver Applying to Operating Recommendation	Number of Fatality Cases	Percentage of 124 Fatality Cases
1-Secure equipment before action is taken.	19	15.3 %
2-Protect employees against moving equipment.	12	9.7 %

3-Discuss safety at the beginning of a job or when a project changes.	14	11.3 %
4-Communicate before action is taken.	18	14.5 %
5-Mentor less experienced employees to perform service safely.	<u>19</u>	15.3 %
total times a Recommendation was cited	82	
less multiple citations of Recommendations	<u>18</u>	
number of cases involving Recommendations	64	

Special Switching Hazard Cases

The remaining 60 fatality cases, those not involving an Operating Recommendation, are classified by the SWG into eleven groups (one group is a miscellaneous group), as shown in Table 3-2, based on a sequence of events leading up to the fatality, as being struck by mainline trains; or by a fatality event characteristic, as drugs or alcohol. The SWG believes that the groupings suggest Special Switching Hazards that employees engaged in switching operations should constantly be aware of to insure their safety and that of their crew members.

Table 3-2. Sixty Switching Fatalities Involving Special Switching Hazards

Type	Number
Close Clearance	10
Struck by Mainline Trains	8
Employee Tripping, Slipping, Falling	6
Free Rolling Railcars	6
Unsecured Cars	6
Equipment	4
Struck by Motor Vehicle or Loading Device	4
Unexpected Movement of Railcars	4
Environment	3
Drugs and Alcohol	3
Miscellaneous	11
total	65
* less cases classified in two category types	5
net total	60

* FE-15-92 was classified under ‘Employee Tripping, Slipping, Falling’ and ‘Unsecured Cars’; FE-46-93, ‘Unsecured Cars’ and ‘Drugs and Alcohol’; FE-30-96, ‘Drugs and Alcohol’ and ‘Employee Tripping, Slipping, Falling’; FE-40-01, ‘Close Clearance’ and ‘Struck by Mainline Trains’; FE-09-02, ‘Close Clearance’ and ‘Struck by Mainline Trains’.

3.3 List of Switching Fatalities, 1992 through 2003

Table 3-3 contains a complete, chronological list of the 124 switching fatalities reviewed by the SWG. The second column to the right indicates if a fatality involved an Operating Recommendation and if so the number of the Recommendation(s). Sixteen fatalities involved more than one Recommendation. The third column to the right indicates if a fatality involved a Special Switching Hazard.

Fatalities in this report have been classified by the SWG as either involving an Operating Recommendation, or a Special Switching Hazard. In reality, fatality events are complex sequences of events occurring amidst a variety of background conditions. Some of the fatalities involving Operating Recommendations also involve Special Switching Hazards. However, for prevention purposes, adherence to the Operating Recommendations and awareness of Special Switching Hazards will potentially prevent all switching fatalities.

Table 3-3. Chronological Listing of 124 Switching Fatalities, 1992 through 2003

#	SOFA Recommendation	Special Switching Hazard	Date	Railroad	Location	FRA Report #
1	4		01/28/92	BN	Willmar, MN	FE-03-92
2	5		01/30/92	AGC	Polk County, FL	FE-04-92
3	4		03/11/92	FEC	Fort Pierce, FL	FE-08-92
4		Free-Rolling Railcars	04/09/92	ATSF	Cheto, AZ	FE-09-92
5	4		06/01/92	ATSF	Escondido, CA	FE-14-92
6		Employee Tripping,... Unsecured Cars	06/01/92	BN	Seattle, WA	FE-15-92
7	5		06/02/92	IHRC	Henderson, KY	FE-16-92
8	1		06/20/92	CNW	Northlake, IL	FE-18-92
9		Struck by Mainline Trains	07/07/92	SSW	Conlen Siding, TX	FE-20-92
10	2,3		07/24/92	GBW	Wisconsin Rapids, WI	FE-30-92
11	4		07/25/92	UP	Portland, OR	FE-22-92
12		Miscellaneous	10/15/92	BN	Omaha, NE	FE-33-92
13		Free-Rolling Railcars	10/23/92	GTW	Dearborn, MI	FE-34-92
14		Miscellaneous	11/16/92	TTIS	Maysville, KY	FE-39-92
15		Employee Tripping,...	03/27/93	SP	Guadalupe, CA	FE-11-93
16		Struck by Mainline Trains	04/13/93	CSX	Dwale, KY	FE-13-93
17		Miscellaneous	05/22/93	ATSF	El Paso, TX	FE-20-93

18		Miscellaneous	06/04/93	SEPTA	Devon, PA	FE-22-93
19	3		06/07/93	IC	Fulton, KY	FE-23-93
20	4		07/15/93	CR	Anderson, IN	FE-26-93
21		Close Clearance	08/04/93	UP	Pryor, OK	FE-27-93
22	3,4		08/11/93	SP	Tracy, CA	FE-30-93
23	2		08/12/93	ATSF	Evandale, TX	FE-31-93
24		Miscellaneous	09/02/93	ATSF	Carlsbad, NM	FE-35-93
25	5		10/19/93	SOO	Leal, ND	FE-40-93
26		Unsecured Cars Drugs and Alcohol	11/12/93	ATSF	Farewell, TX	FE-46-93
27	3,5		11/13/93	GC	Macon, GA	FE-47-93
28	3		12/05/93	SOU	Atlanta, GA	FE-49-93
29		Environment	12/30/93	CR	Brook Park, OH	FE-53-93
30		Unsecured Cars	01/04/94	BN	Hastings, NE	FE-02-94
31		Equipment	01/14/94	BN	Amarillo, TX	FE-03-94
32		Miscellaneous	01/18/94	CSX	Bainbridge, GA	FE-04-94
33	2		01/20/94	UP	Fall City, NE	FE-06-94
34		Close Clearance	04/12/94	SP	Houston, TX	FE-12-94
35		Free-Rolling Railcars	07/05/94	BN	Essex, MT	FE-16-94
36		Struck by Motor Vehicle...	09/20/94	ARR	Clear Site, AK	FE-20-94
37	1		10/17/94	UP	Donaldsonville, LA	FE-26-94
38	5		11/10/94	PTRA	Houston, TX	FE-28-94
39	3,4		11/15/94	CR	Painted Post, NY	FE-29-94
40	2,4,5		12/06/94	CR	Campbell Hall, NY	FE-31-94
41	1		12/13/94	UP	Thorton, CA	FE-32-94
42		Equipment	01/11/95	CR	Indianapolis, IN	FE-02-95
43	3,4		02/17/95	CR	St. James, OH	FE-09-95
44	1,2		02/24/95	ATSF	Amarillo, TX	FE-11-95
45	1,3		03/02/95	NS	Aiken, SC	FE-12-95
46		Miscellaneous	03/21/95	SP	Bassett, CA	FE-17-95
47		Unsecured Cars	04/06/95	WC	Argoe, WI	FE-16-95
48	2		05/03/95	CSX	Evansville, IN	FE-18-95
49		Employee Tripping,...	07/21/95	CR	Hershey, PA	FE-23-95
50	1,5		10/04/95	CSX	Riverdale, IL	FE-29-95
51		Close Clearance	12/11/95	NS	Toledo, OH	FE-33-95
52		Close Clearance	12/14/95	CSX	Monroe, NC	FE-34-95
53	1,5		03/20/96	BRC	Bedford Park, IL	FE-09-96
54	5		06/15/96	CSX	Charlotte, NC	FE-12-96
55	5		07/07/96	NS	Sidney, IN	FE-17-96
56	5		09/03/96	DGNO	Dallas, TX	FE-22-96

57	1,5		10/07/96	UP	Eagle Pass, TX	FE-24-96
58		Employee Tripping,...	12/16/96	UP	Clinton, IA	FE-30-96
59		Drugs and Alcohol				
59		Unsecured Cars	12/18/96	IC	Chicago, IL	FE-31-96
60		Employee Tripping,...	01/12/97	UP	S Fontana, CA	FE-02-97
61	4		01/29/97	UP	Mason City, IA	FE-04-97
62	2		02/02/97	CR	Burns Harbor, IN	FE-05-97
63	4		06/06/97	CMRC	Bay City, MI	FE-16-97
64		Unexp. Movement of Railcars	06/24/97	NS	Rowesville, SC	FE-19-97
65		Employee Tripping,...	06/24/97	UP	Portland, OR	FE-18-97
66		Struck by Mainline Trains	07/18/97	MNCW	Stamford, CT	FE-22-97
67	1		08/15/97	UP	Elko, NV	FE-25-97
68	5		10/16/97	MRL	Laurel, MT	FE-32-97
69		Struck by Mainline Trains	12/02/97	BNSF	Emporia, KS	FE-36-97
70	4		12/26/97	UP	Boise, ID	FE-45-97
71		Drugs and Alcohol	01/24/98	BNSF	Omaha, NE	FE-02-98
72	2		02/04/98	BRC	Bedford Park, IL	FE-05-98
73	1		05/26/98	BRC	Bedford Park, IL	FE-15-98
74	2,5		06/01/98	BNSF	Lubbock, TX	FE-16-98
75	1		06/05/98	NS	Hapeville, GA	FE-17-98
76		Close Clearance	07/01/98	NS	Buechel, KY	FE-19-98
77		Miscellaneous	10/26/98	CCP	Cicero, IL	FE-28-98
78	4		12/28/98	IC	Durrant, MS	FE-37-98
79	3,4		01/12/99	CR	Port Newark, NJ	FE-01-99
80		Environment	01/22/99	CR	Alexander, NY	FE-03-99
81		Struck by Motor Vehicle...	02/17/99	KCS	Kansas City, MO	FE-05-99
82	3		04/02/99	DME	Waseca, MN	FE-11-99
83		Equipment	04/09/99	UP	Richland, WA	FE-12-99
84	5		05/19/99	NS	Cincinnati, OH	FE-14-99
85	1,4		06/23/99	UP	Redding, CA	FE-16-99
86	1,5		09/14/99	AM	Van Buren, AR	FE-24-99
87		Unexp. Movement of Railcars	11/17/99	UP	Lincoln, NE	FE-32-99
88		Environment	01/02/00	CIRR	Cedar Springs, GA	FE-02-00
89	1		03/09/00	IHB	Riverdale, IL	FE-09-00
90		Free-Rolling Railcars	04/21/00	BNSF	Galesburg, IL	FE-13-00
91		Close Clearance	05/22/00	CSX	Richmond, VA	FE-16-00
92		Miscellaneous	05/31/00	UP	Pine Bluff, AR	FE-17-00
93	1		07/07/00	CKRY	Wichita, KS	FE 21-00
94	4		07/24/00	PARN	Skagway, AK	FE-22-00
95		Close Clearance	07/28/00	UP	St. Louis, MO	FE-23-00

96	2		08/11/00	BNSF	Port of Los Angeles, CA	FE-25-00
97	4		09/09/00	BNSF	Keokuk, IA	FE-29-00
98	3		10/15/00	UP	Houston, TX	FE-30-00
99		Struck by Mainline Trains	12/28/00	UP	Dupo, IL	FE-32-00
100		Struck by Mainline Trains	12/29/00	BNSF	Gillette, WY	FE-33-00
101	5		01/10/01	CSX	Chicago, IL	FE-02-01
102	3		01/11/01	NS	South Fork, PA	FE-03-01
103	1		03/03/01	BNSF	Willmar, MN	FE-08-01
104		Miscellaneous	04/08/01	BNSF	Clark, OK	FE-14-01
105		Free-Rolling Railcars	07/13/01	CPRS	Bensenville, IL	FE-21-01
106		Close Clearance	10/10/01	PAL	Clayburn, KY	FE-31-01
107		Struck by Motor Vehicle...	12/22/01	NS	Eden, NC	FE-39-01
108		Close Clearance	12/24/01	NS	Lynchburg, VA	FE-40-01
109		Struck by Mainline Trains				
109		Close Clearance	03/21/02	NS	Claymont, DE	FE-09-02
109		Struck by Mainline Trains				
110	1		05/14/02	UP	Pine Bluff, AR	FE-12-02
111	1,3,5		06/16/02	BNSF	Memphis, TN	FE-16-02
112	4		07/16/02	NS	Bonlee, NC	FE-17-02
113	2		08/08/02	CWRO	Cleveland, OH	FE-19-02
114		Unexp. Movement of Railcars	09/02/02	CSX	Madisonville, KY	FE-22-02
115	2		02/11/03	CNIC	Flat Rock, MI	FE-03-03
116		Free-Rolling Railcars	02/16/03	CSX	Syracuse, NY	FE-04-03
117		Unsecured Cars	02/18/03	CSX	Cheektowaga, NY	FE-05-03
118	3		04/11/03	UP	Pocatello, ID	FE-11-03
119		Struck by Motor Vehicle...	06/06/03	CSX	Kingsport, TN	FE-12-03
120	1		08/26/03	LC	Chester, SC	FE-20-03
121	5		09/12/03	GC	Dublin, GA	FE-22-03
122		Equipment	09/14/03	UP	Ogden, UT	FE-23-03
123		Miscellaneous	09/24/03	BNSF	Fresno, CA	FE-25-03
124		Unexp. Movement of Railcars	12/07/03	UP	San Antonio, TX	FE-35-03

3.4 Narratives of the 124 Switching Fatalities

The narratives for the 124 switching fatalities that occurred from January 1992 through December 2003 are given below. These narratives were written by the SWG as part of its review of each switching fatality. Those narratives involving Recommendations are presented under the applicable Recommendation. Potentially, these 64 fatalities could have been averted by application of the Recommendation(s). The Special Switching Hazard fatality cases are presented under the eleven groupings that describe the fatal event or condition.

Switching Fatalities Involving Operating Recommendations

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.

June 20, 1992 – CNW - Northlake, IL FE-18-92

Recommendation 1

Crew was in the process of coupling cars together in a class track. Standing equipment was not properly secured before conductor fouled the track to adjust couplers and the equipment rolled back in and coupled him up.

October 17, 1994 – UP - Donaldsonville, LA FE-26-94

Recommendation 1

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.

December 13, 1994 – UP – Thorton, CA FE-32-94

Recommendation 1

Crew coupling up cars in an industry track, brakeman attempted to couple air between cars when unexpected movement of railcars occurred, resulting in his fatal injury.

February 24, 1995 – Amarillo, TX FE-11-95

Recommendation 1

also Recommendation 2

Two crews working in the same yard from opposite ends, one crew dropped ten free rolling cars in on top of the cut where the other crew's foreman was installing the E.O.T. at the opposite end. Cars impacted with sufficient force to knock down and run over the foreman.

March 02, 1995 –NS – Aiken, SC FE-12-95

Recommendation 1

also Recommendation 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.

October 04, 1995 – CSX – Riverdale, IL FE-29-95

Recommendation 1

also Recommendation 5

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.

March 20, 1996 – BRC – Bedford Park, IL FE-09-96

Recommendation 1
also Recommendation 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.

October 07, 1996 – UP – Eagle Pass, TX FE-24-96

Recommendation 1
also Recommendation 5

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.

August 15, 1997 – UP – Elko, NV FE-25-97

Recommendation 1

Crew was switching in class yard. Helper was attempting to adjust the drawbar in order to couple to three cars about forty feet away that had not coupled the first time. While adjusting the drawbar, the helper did not notice the three free-rolling cars coming back in on him and the cars coupled him up.

May 26, 1998 – BRC – Bedford Park, IL FE-15-98

Recommendation 1

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.

June 05, 1998 – NS – Hapeville, GA FE-17-98

Recommendation 1

A three-person crew was performing industrial switching using a runaround track, the yard foreman was attempting to couple up two super-cushion boxcars in a curve with power attached in a shove movement. Drawbars bypassed and yard foreman was crushed between the ends of the two cars.

June 23, 1999 – UP - Redding, CA FE-16-99

Recommendation 1
also recommendation 4

A three-person switching crew was shoving a cut of cars down a track with the intent of coupling to another cut that was sitting in the track. It was hard to shove the cars and the conductor told the brakeman to look for closed angle cocks. The brakeman found a closed angle cock when the shove move was within two car lengths of a coupling and opened it. The conductor was crushed and killed between the leading car of the shove and the head car to be coupled to when the shove move unintentionally accelerated just prior to coupling.

September 14, 1999 – AR - Van Buren, AR FE-24-99

Recommendation 1
also Recommendation 5

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 the other seven cars 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.

March 09, 2000 – IHB – Riverdale, IL FE-09-00

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.

July 07, 2000 – CKRY – Wichita, KS FE-21-00

Recommendation 1

Employee was struck by his own train when he tripped and fell onto the rail as he stepped in between moving equipment to open a knuckle while walking backwards.

March 03, 2001 – BNSF – Willmar, MN FE-08-01

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.

May 14, 2002 – UP – Pine Bluff, AR FE-12-02

Recommendation 1

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

June 16, 2002 – BNSF - Memphis, TN FE-16-02

Recommendation 1

also Recommendation 3 and 5

A yard foreman, with 18-months of service, along with his helper, engineer, and a utility employee had just finished making up a train in the yard. However, the crossover from the track on which the train had been made had to be cut. This last minute instruction led to an increased level of conversation among the crew, yard foreman, utility employee and the yardmaster. The yard foreman jumped on a ATV, rode it to the cut point, separated the train; and, when the cut not attached to the locomotive rolled, he was caught between the two sections of the train and killed.

August 26, 2003 – LC – Chester, SC FE-20-03

Recommendation 1

A three-person crew that included a brakeman trainee was switching an industry when the conductor requested a short backup move when the cars he intended to couple to did not couple. A short time later and after failed attempts to contact the conductor the trainee discovered him dead and lying between the cars he had been trying to couple together.

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.

July 24, 1992 – GBW – Wisconsin Rapids, WI FE-30-92

Recommendation 2
also Recommendation 3

The road job's brakeman was trying to help the switch crew make up his train. The brakeman was in between cars on an active track being used by the switch crew and was killed when the cars he was between moved upon being struck by a cut of free rolling cars.

August 12, 1993 – ATSF – Evandale, TX FE-31-93

Recommendation 2

Upon detraining, brakeman was struck and killed by another railroad's yard job working in the same small yard. Members of both crews saw each other but the brakeman apparently did not see the short line crews shove move.

January 20, 1994 – UP – Fall City, NE FE-06-94

Recommendation 2

Conductor riding side of two cars to be kicked, he moves to the opposite side of car to work hand brake and is immediately struck by locomotives standing on adjacent track creating a no-clearance condition. Conductor was not aware that the locomotives had arrived at that location since he had last been there.

December 06, 1994 – CR – Campbell Hall, NY FE-31-94

Recommendation 2
also Recommendation 4 and 5

First local had left the immediate location of the work area to be used by the second local without notifying the second local of the position of the switches, derails or returning the switches to a non-conflicting position. Second local shoving three cars and a caboose with a two-month trainee directing the move, struck standing equipment after traversing switches that were unexpectedly lined for the equipment.

February 24, 1995 – ATSF – Amarillo, TX FE-11-95

Recommendation 2
also Recommendation 1

Foreman of one job was installing the rear end marker on a cut of cars when the foreman of another job sent ten free rolling cars into the same track. The resulting impact caused all the cars to roll enough to knock down and kill the foreman who had been installing the marker.

May 03, 1995 – CSX – Evansville, IN FE-18-95

Recommendation 2

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.

February 02, 1997 – CR – Burns Harbor, IN FE-05-97

Recommendation 2

Two yard jobs working on adjacent tracks. The conductor of one is studying his switch list as the other job is shoving into the adjacent track. Conductor is struck and killed by the lead car of the adjacent track shove move.

February 04, 1998 – BRC – Bedford Park, IL FE-05-98

Recommendation 2

Conductor and switchman making hoses on track 12, last transmission by conductor is "I think I got all the hoses after that next one...." Conductor later found to have been struck and killed by a free rolling car on the adjacent track.

June 01, 1998 – BNSF – Lubbock, TX FE-16-98

Recommendation 2
also Recommendation 5

Two yard engines working on adjacent tracks. One left a car fouling a clear track being used by the other engine. The foreman directing the shove move of the lite locomotives was crushed when his engine consist cornered the car fouling the adjacent track.

August 11, 2000 – BNSF – Port of Los Angeles, CA FE-25-00

Recommendation 2

Employee was struck and killed by the lead car of another switching movement that was operating on the adjacent yard track.

August 08, 2002 – CWRO – Cleveland, OH FE-19-02

Recommendation 2

A two-person crew was switching cars in a yard and, without the trainman's knowledge, another switching crew had set cars into a track adjacent to the one being used by the first crew. The set out included a wide ladle car and it created a clearance issue on the adjacent track. Some time later, the trainman was riding the lead car down the track adjacent to the wide ladle car and was killed when he was rolled between the car he was riding and the wide ladle car sitting on the adjacent track.

February 11, 2003 – CNIC – Flat Rock, MI FE-03-03

Recommendation 2

A three-person crew (engineer, conductor, brakeman) were stopped and the engineer and conductor were awaiting the brakeman's return from the "Trim Shanty". During this time, another crew was in the process of shoving a cut of cars down a track that was located between where the brakeman's crew were waiting and the Shanty. The brakeman exited the Shanty and was struck by the shove move as he crossed the tracks to get to his crew. The shove move was being preceded by two of the striking train's crew who were riding in a van at the time.

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.

July 24, 1992 – GBW – Wisconsin Rapids, WI FE-30-92

Recommendation 3
also Recommendation 2

Crew performing switching in class yard while road brakeman from another crew was coupling air hoses in a track without proper precautions and protection. Yard crew switched into the track and equipment ran over the road brakeman.

June 07, 1993 – IC – Fulton, KY FE-23-93

Recommendation 3

Crew performing switching duties in class yard failed to have a clear understanding of movements being made. Results were that the rear brakeman was run over by moving equipment. There were no witnesses, but a hand brake was applied. It was thought that the brakeman had gone between the equipment on the ground to release the low hand brake.

August 11, 1993 – SP – Tracy, CA FE-30-93

Recommendation 3
also Recommendation 4

Crew performing industry switching. Brakeman attempted to couple air hoses while conductor gave engineer instructions to shove the movement. Resulting movement was unexpected to brakeman who was fatally injured.

November 13, 1993 – GC – Macon, GA FE-47-93

Recommendation 3

also Recommendation 5

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.

December 05, 1993 – SOU – Atlanta, GA FE-49-93

Recommendation 3

Change in operating procedure between two crews swapping equipment resulted in conductor being struck by unexpected movement while he was in the foul of the track.

November 15, 1994 – CR – Painted Post, NY FE-29-94

Recommendation 3

also Recommendation 4

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.

February 17, 1995 – CR – St. James, OH FE-09-95

Recommendation 3

also Recommendation 4

Arbitrary change in switching operations by conductor resulted in him being unexpectedly struck and fatally injured by approaching cars while he was fouling the track.

March 02, 1995 – NS – Aiken, SC FE-12-95

Recommendation 3

also Recommendation 1

Switching crew was pulling cut of cars out of an industry. No clear understanding of moves to be done by crew members resulted in brakeman being run over when he stepped in track gauge to open knuckle on the rear car of a cut and the locomotive engineer shoved that cut back over him.

January 12, 1999 – CR – Port Newark, NJ FE-01-99

Recommendation 3

also Recommendation 4

A three-person industry switching crew was in the process of switching cars back and forth over a private crossing equipped with an in-ground hand throw switch. The brakeman was at the switch and the conductor was going back and forth from one set of cars to another. The conductor shouted to the brakeman that he wanted the next move down one track but the cars started down the other. The brakeman tried to warn the conductor who had his back to the move and then stopped the move but too late to save the conductor who was hit and run over by the leading car of the shove.

April 02, 1999 – DME – Waseca, MN FE-11-99

Recommendation 3

A three-person yard switching crew was switching and the conductor was pulling pins while the brakeman was taking orders from him and working the yard tracks during a flat switching operation. The conductor cut off three cars that rolled into other cars on the track. The brakeman was run over by these cars.

October 15, 2000 – UP – Houston, TX FE-30-00

Recommendation 3

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

January 11, 2001 – NS – South Fork, PA FE-03-01

Recommendation 3

The engineer and conductor of a road train were told to stop and check their locomotives for flat spots. Once stopped, and without a job briefing the locomotive engineer left the lead unit and shortly thereafter, was struck and killed by a passing mainline train.

June 16, 2002 – BNSF – Memphis, TN FE-16-02

Recommendation 3

also Recommendation 1 and 5

A yard foreman, with 18-months of service, along with his helper, engineer and a utility employee had just finished making up a train in the yard. However, the crossover from the track on which the train had been made had to be cut. This last minute instruction led to an increased level of conversation among the crew, yard foreman, utility employee and the yardmaster. The yard foreman jumped on a ATV, rode it to the cut point, separated the train; and, when the cut not attached to the locomotive rolled, he was caught between the two sections of the train and killed.

April 11, 2003 – UP – Pocatello, ID FE-11-03

Recommendation 3

A road conductor was riding the point of a 122-car shove down a track that was partially out of service. The out of service portion was marked by a red flag and derail. The crew was not able to stop the movement before the car being ridden by the conductor went over the derail, landed on its side and crushed the conductor to death.

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.

January 28, 1992 – BN - Willmar, NM FE-03-92

Recommendation 4

A four-person crew (engineer, switch foreman, 2 switchman) had just shove cars into track 11 and held onto one for track 9. The switch foreman got the switch for 9, noticed his front switchman standing near cars on track 11, and rode the locomotive onto the lead. After the 11th switch was lined for the lead, the switch foreman kicked the single car into track 9. The front switchman was struck and killed by the free rolling car.

March 11, 1992 – FEC – Fort Pierce, FL FE-08-92

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.

June 01, 1992 – ATSF – Escondido, CA FE-14-92

Recommendation 4

Brakeman had control of the move and told the engineer, by radio, to back up six cars to a coupling. The brakeman assumed that the conductor would "pick-up" the move when it came into his (the conductor's) view. The movement continued until it struck sitting cars on the track which, when moved, killed the conductor who was in between them.

July 25, 1992 – UP – Portland, OR FE-22-92

Recommendation 4

A three-person crew had arrived at the yard, pulled their train into a track, cut off the engines and were given permission to return to the other end of the yard via an adjacent clear track. The conductor remained on the end originally entered and the brakeman stayed with the engineer. The brakeman got what he thought was the proper switch, instructed the engineer by radio to back up and, apparently turned his back on the move. Before the brakeman had a chance to mount the returning locomotives, he was struck and killed by the movement that continued for 400 feet before stopping when the engineer noticed the brakeman between the gauge of the rail in front of the locomotives.

July 15, 1993 – CR – Anderson, IN FE-26-93

Recommendation 4

After the brakeman had tied the locomotives onto a cut of cars in the yard, the engineer received an instruction, via radio, from the brakeman to "shove to hold more cars." The engineer began to shove and didn't stop until he was on the other end of the track. The brakeman was run over by the shove move. There was no evidence of any other radio transmissions concerning the shove move.

August 11, 1993 – SP – Tracy, CA FE-30-93

Recommendation 4

also Recommendation 3

Crew performing industry switching. Brakeman attempted to couple air hoses while conductor gave engineer instructions to shove the movement. Resulting movement was unexpected to brakeman who was fatally injured.

November 15, 1994 – CR – Painted Post, NY FE-29-94

Recommendation 4

also Recommendation 3

Trainman and conductor working together with two locomotives and involved in switching a few cars, between three different tracks, using a mixture of hand and radio signals. Conductor tells the trainman his instructions by radio and instructs the engineer by hand signals. The engineer moves on a hand signal to back up, the conductor boards the locomotives and the movement continues without further instruction until it runs into a cut of cars that the trainman was apparently fouling, killing the trainman. Engineer thought he would hear, by radio, from the trainman.

December 06, 1994 – CR – Campbell Hall, NY FE-31-94

Recommendation 4

The brakeman trainee was on the caboose to direct the shove move of the three engines, three cars and a caboose toward Track 1 in the yard. The shove move continued although the only radio transmission after getting the move started was "the derail is off." The movement, which reached approximately 19

mph, struck standing equipment after diverging through two mis-aligned switches and killed the brakeman trainee.

February 17, 1995 – CR – St. James, OH FE-09-95

Recommendation 4
also Recommendation 3

Conductor instructs engineer, by radio, to “come ahead” (position of controlling locomotive causes this instruction to result in a shove move) with the same cars that he had just come out of the track with. There are no other radio transmissions from the conductor and eventually, the trainman, standing at the other two cars on the same track that was just pulled, directs the move to re-couple figuring that the conductor changed his mind. The movement traveled approximately eleven car lengths prior to coupling.

January 29, 1997 – UP – Mason City, IA FE-04-97

Recommendation 4

Conductor and engineer were moving toward engine house area with lite engines and using hand signals. The conductor stopped the movement to line a switch. The engineer while waiting heard and acted upon an unidentified radio transmission “come ahead 21.” The engineer initiated the shove movement and eventually, the conductor was struck from behind and killed.

June 06, 1997 – CMRC – Bay City, MI FE-16-97

Recommendation 4

Conductor began a move using radio communication to shove a cut of cars approximately twenty-five car lengths to a coupling. After the move had begun the engineer didn't hear another radio transmission from his conductor. The shove move eventually collided with the cars that were to be coupled to. The conductor was crushed in the collision and it was later determined that the portable radio being used by the conductor may have lost enough of its charge to effect the transmission.

December 26, 1997 – UP – Boise, ID FE-45-97

Recommendation 4

Conductor was riding equipment while setting hand brakes. Move was being shoved; improper radio communication.

December 28, 1998 – IC – Durrant, MS FE-37-98

Recommendation 4

Shove movement was not properly controlled by radio communication and resulted in a collision with a fallen tree which caused the derailment and death of the conductor.

January 12, 1999 – CR - Port Newark, NJ FE-01-99

Recommendation 4
also Recommendation 3

A three-person industry switching crew was in the process of switching cars back and forth over a private crossing equipped with an in-ground hand throw switch. The brakeman was at the switch and the conductor was going back and forth from one set of cars to another. The conductor shouted to the brakeman that he wanted the next move down one track but the cars started down the other. The brakeman tried to warn the conductor who had his back to the move and then stopped the move but too late to save the conductor who was hit and run over by the leading car of the shove.

June 23, 1999 – UP - Redding, CA FE-16-99

Recommendation 4
also Recommendation 1

A three-person switching crew was shoving a cut of cars down a track with the intent of coupling to another cut that was sitting in the track. It was hard to shove the cars and the conductor told the brakeman to look for closed angle cocks. The brakeman found a closed angle cock when the shove

move was within two car lengths of a coupling and opened it. The conductor was crushed and killed between the leading car of the shove and the head car to be coupled to when the shove move unintentionally accelerated just prior to coupling.

July 24, 2000 – PARN – Skagway, AK FE-22-00

Recommendation 4

A two-person yard switching crew was in the process of moving their light locomotives to a track where it was to be stored for the night. The conductor was on the leading end of the unit and directing the move by radio communication. After instructing the engineer to stop, the conductor got off the locomotive, lined two switches and told the engineer to back up. The engineer backed up until he placed the unit at the location where it is always left without further radio contact from his conductor. The conductor was struck and killed by the locomotive and found, by the engineer, under the locomotive's fuel tanks.

September 09, 2000 – BNSF - Keokuk, IA FE-29-00

Recommendation 4

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.

July 16, 2002 – NS - Bonlee, NC FE-17-02

Recommendation 4

While shoving lite engines back to train on mainline, employees failed to control the movement by radio, resulting in a collision with a standing train.

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.

January 30, 1992 – AGC – Polk County, FL FE-04-92

Recommendation 5

Industry switch crew, engineer and two flagmen, both flagmen rode the lower steps of the leading end of the lead locomotive. FE (flagman) was on left side, the other flagman on right side. After 2000 feet into this lite engine movement the surviving flagman noticed the FE stopped talking and he crossed over to the FE's side and saw FE lying next to the track behind movement. Investigation showed FE either slipped off the fireman's side or tripped while dismounting or attempting to remount from the fireman's side. FE had six months experience.

June 02, 1992 – IHRC – Henderson, KY FE-16-92

Recommendation 5

A two-person crew was switching an industry. The conductor had 11 months service with the railroad and, as the last move of the night, was to pull one car and set another in its place. As he set out the car and separated it from the car to go into the spot location, it began to roll away. He chased after it, tried to mount the end of the car with the handbrake and was killed when he slipped and fell under the car.

October 19, 1993 – SOO – Leal, ND FE-40-93 Recommendation 5
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.

November 13, 1993 – GC – Macon, GA FE-47-93 Recommendation 5
also Recommendation 3
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.

November 10, 1994 – PTR A – Houston, TX FE-28-94 Recommendation 5
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.

December 06, 1994 – CR – Campbell Hall, NY FE-31-94 Recommendation 5
also Recommendation 2 and 4
First local had left the immediate location of the work area to be used by the second local without notifying the second local of the position of the switches, derails or returning the switches to a non-conflicting position. Second local shoving three cars and a caboose with a two-month trainee directing the move, struck standing equipment after traversing switches that were unexpectedly lined for the equipment.

October 04, 1995 – CSX – Riverdale, IL FE-29-95 Recommendation 5
also Recommendation 1
Crew performing switching in class yard. Switch foreman, with 5 months service, placed himself between the rails to adjust a misaligned couple 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.

March 20, 1996 – BRC – Bedford Park, IL FE-09-96 Recommendation 5
also Recommendation 1
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.

June 15, 1996 – CSX – Charlotte, NC FE-12-96 Recommendation 5
Yard crew, engineer, conductor and switchman, switching at an industry. While crew was shoving two cars to a spot inside an industry building, FE (switchman) was rolled between lead box car and unloading platform. Platform or building was not marked with any type of 'no-clearance' or 'close clearance' signage. FE was last seen by the conductor on the ground next to movement in a 'cut-out' space in the unloading platform. The conductor reported that there is enough room for a man to clear

the movement in this 'cut-out'. After hearing a strange noise the conductor instructed engineer to stop the movement. FE was rolled for 21 feet between boxcar and platform. FE had one year of experience.

July 07, 1996 – NS – Sidney, IN FE-17-96

Recommendation 5

Road crew, engineer and conductor, while stopped on siding track to meet an opposing train, FE (conductor) detrained to perform a roll-by inspection of other train. FE stepped off his train shortly before opposing trains arrival then stood in that trains track while trying to adjust his portable radio. Opposing train struck FE at this point. FE had one year of experience.

September 03, 1996 – DGNO – Dallas, TX FE-22-96

Recommendation 5

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.

October 07, 1996 – UP – Eagle Pass, TX FE-24-96

Recommendation 5

also Recommendation 1

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.

October 16, 1997 – MRL – Laurel, MT FE-32-97

Recommendation 5

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.

June 01, 1998 – BNSF – Lubbock, TX FE-16-98

Recommendation 5

also Recommendation 2

Two yard engines working on adjacent tracks. One left a car fouling a clear track being used by the other engine. The foreman directing the shove move of the lite locomotives was crushed when his engine consist cornered the car fouling the adjacent track.

May 19, 1999 – NS – Cincinnati, OH FE-14-99

Recommendation 5

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 to late that the move would not clear the standing equipment. He was crushed between the handrail of his locomotive and the standing locomotive.

September 14, 1999 – AM – Van Buren, AR FE-24-99

Recommendation 5

also Recommendation 1

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.

January 10, 2001 – CSX – Chicago, IL FE-02-01 Recommendation 5

Conductor with 14-months service was struck and killed by passing mainline train while attempting to board locomotive at crew-change point.

June 16, 2002 – BNSF – Memphis, TN FE-16-02 Recommendation 5

also Recommendation 1 and 3

A yard foreman, with 18-months of service, along with his helper, engineer and a utility employee had just finished making up a train in the yard. However, the crossover from the track on which the train had been made had to be cut. This last minute instruction led to an increased level of conversation among the crew, yard foreman, utility employee and the yardmaster. The yard foreman jumped on a ATV, rode it to the cut point, separated the train; and, when the cut not attached to the locomotive rolled, he was caught between the two sections of the train and killed.

September 12, 2003 – GC – Dublin, GA FE-22-03 Recommendation 5

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.

Switching Fatalities Involving Special Switching Hazards

Sixty switching fatalities that occurred from January 1992 through December 2003, did not involve circumstances associated with the Five Operating Recommendations. These fatality cases have been classified by the SWG into eleven groups (one group is a miscellaneous group) based on a sequence of events leading up to the fatality, such as being struck by mainline train; or by a fatality event characteristic, such as drugs or alcohol. The SWG believes an employee's awareness of the Special Switching Hazards identified in the grouping will insure their safety and that of their crew members.

Five of the Special Switching Hazard cases were classified under two groups: FE-15-92 was classified under 'Employee Tripping, Slipping, Falling' and 'Unsecured Cars'; FE-46-93, 'Unsecured Cars' and 'Drugs and Alcohol'; FE-30-96, 'Drugs and Alcohol' and 'Employee Tripping, Slipping, Falling'; FE-40-01, 'Close Clearance' and 'Struck by Mainline Trains'; FE-09-02, 'Close Clearance' and 'Struck by Mainline Trains'. Such multiple classification reflects long sequence of actions and background conditions that can lead to switching fatalities.

The SWG narratives of each fatality are presented below, classified by related event or characteristic into eleven groups:

- Close Clearance
- Struck by Mainline Trains
- Free Rolling Railcars
- Employee Tripping, Slipping, Falling
- Struck by Motor Vehicle or Loading Device
- Unsecured Cars
- Environment
- Drugs and Alcohol

- Unexpected Movement of Railcars
- Equipment
- Miscellaneous

Close Clearance

August 04, 1993 – UP – Pryor, OK FE-27-93 Close Clearance

A three-person industrial switching crew was shoving three cars down a track. The conductor was on the ground, ahead of the move and the brakeman was riding the side of the leading end of the leading car. A bush created a clearance issue and the brakeman stepped around the side of the leading car to the end of the car just as it began to derail. The brakeman was killed when he fell from the derauling car.

April 12, 1994 – SP – Houston, TX FE-12-94 Close Clearance

A three-person switching crew was in the process of switching out the car repair shop. The foreman had taken a position on the trailing end of the third leading car as the move was being shoved into a track having a close clearance condition that involved a protective grate that covered a winch. The foreman was knocked off the car by the covering, fell in front of the leading wheels of the fourth leading car, and was later pronounced dead at the hospital.

December 11, 1995 – NS – Toledo, OH FE-33-95 Close Clearance

A three-person crew was called to switch an industry that all were very familiar with. During the switching moves, the brakeman was inside an area with no clearances between the cars and the hand railings installed on the walls. He was making coupling and, according to the conductor and engineer, upon completion of that work, ordered the engineer to haul out of the building where the conductor would take over the next move to be performed. Subsequently, a plant employee observed the brakeman slumped beside the track, rushed to assistance, call 911 and notified the conductor that his man was down. The brakeman died later on at the hospital of crushing wounds incurred when he was rolled between the cars being pulled out and the railing.

December 14, 1995 – CSX – Monroe, NC FE-34-95 Close Clearance

A three-person crew (engineer, conductor & conductor trainee) was called to operate a local freight train. During a switching operation at a yard, the conductor was riding nine cars down a clear track and directing the shove move by radio. When the engineer did not hear any more radio transmissions from the conductor, he stopped the move and found the conductor dead and lying beside the track he had been shoving down. Post accident investigation revealed that he had been struck by a truck trailer door positioned on a flat car standing on an adjacent track and that had been left open and swinging freely. The investigation revealed that a vandal had broken into the trailer and stolen material from it.

July 01, 1998 – NS – Buechel, KY FE-19-98 Close Clearance

A three-person local switching crew (conductor, engineer and utility employee) had just begun to pull five cars out of an industrial loading dock while the conductor and the utility employee began to walk toward the door providing egress out of the dock area. Suddenly, according to the conductor, the utility employee allegedly tripped on some material on the dock, grabbed the side of the outgoing cut of cars and was pulled between the car he was holding onto and the handrail structure that accompanied the stairs leading from the platform to the door. He died two weeks later.

May 22, 2000 – CSX – Richmond, VA FE-16-00 Close Clearance
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.

July 28, 2000 – UP – St. Louis, MO FE-23-00 Close Clearance
A three-person local switching crew was in the process of setting cars into a track within an industry. The switchman was riding the side ladder of the leading end of the leading car as it went into the building. The doorway would not clear a man riding on the side of the car and the trainman was killed as he was compressed between it and the car he was riding.

October 10, 2001 – PAL – Clayburn, KY FE-31-01 Close Clearance
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.

December 24, 2001 – NS – Lynchburg, VA FE-40-01 Close Clearance
also Struck by Mainline Trains
A conductor, engineer and conductor in training had been transported to an unattended train standing on a siding a portion of which was in a tunnel adjacent to the main track. After storing their equipment, the conductor and the conductor in training left the locomotive to release hand brakes on the train. The conductor was killed when she failed to step in between two boxcars of her train as the conductor in training had done and was subsequently struck by a passing mainline train.

March 21, 2002 – NS – Claymont, DE FE-09-02 Close Clearance
also in Struck 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.

Struck by Mainline Trains

July 07, 1992 – SSW – Colen Siding, TX FE-20-92 Struck by Mainline Trains
A two-person crew was called to deadhead to a siding and bring the train that was there and tied down into the yard. Upon arrival at the train, the conductor began releasing handbrakes on the train and the engineer began releasing handbrakes and inspecting the four head end locomotives. An approaching 60 MPH mainline train whistled for a highway crossing at grade and the conductor stopped what he was doing and positioned himself to do a roll by train inspection. His engineer was killed when he was struck by the passing train as he stepped out from between two of his units and began walking adjacent to, and in the foul of, the main track.

April 13, 1993 – CSX - Dwale, KY FE-13-93 Struck by Mainline Trains

A three-person crew reported for duty and was transported to a location where they took control of a mainline train. En-route, their work included swapping rear end marking devices. The brakeman apparently became confused, stepped into and began walking within the gauge of the main track, and was struck in the back by a passing mainline train.

July 18, 1997 – MNCW – Stamford, CT FE-22-97 Struck by Mainline Trains

A conductor/flagman was assigned to protect contractor workers that were installing construction poles near a passenger station platform. To better observe the work, the conductor/flagman placed himself within the gauge of a “live” main track and was struck and killed by a passing train.

December 02, 1997 – BNSF – Emporia, KS FE-36-97 Struck by Mainline Trains

The three-person crew had just finished making up their train at the yard. The conductor, for unknown reasons, had positioned himself on the “live” main trackside of his train, near the second and third locomotives. The conductor was struck and killed by a passing main track train that had approached the area from the opposite direction than that the conductor’s train was to proceed.

December 28, 2000 – UP – Dupo, IL FE-32-00 Struck by Mainline Trains

A three-person yard switching crew was in the process of pulling cars down a long lead that ran parallel to a main track. The switchman was standing between the cars that were being pulled out onto the lead and the main track. While the cars were being moved, a main line train approached his location. The switchman, with nowhere to go, was struck by the passing main line train and killed by a blow to the head.

December 29, 2000 – BNSF – Gillette, WY FE-33-00 Struck by Mainline Trains

A two-person freight train crew was about to be passed by another freight train at a location on line-of-road. The conductor of the stopped train got up out of his seat, exited the leading locomotive and crossed over the track on which the on-coming train was proceeding. The conductor was struck and killed by the lead locomotive of the passing train.

December 24, 2001 – NS – Lynchburg, VA FE-40-01 Struck by Mainline Trains

also Close Clearance

A conductor, engineer and conductor in training had been transported to an unattended train standing on a siding a portion of which was in a tunnel adjacent to the main track. After storing their equipment, the conductor and the conductor in training left the locomotive to release hand brakes on the train. The conductor was killed when she failed to step in between two boxcars of her train as the conductor in training had done and was subsequently struck by a passing mainline train.

March 21, 2002 – NS – Claymont, DE FE-09-02 Struck by Mainline Trains

also in Close Clearance

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.

Free-Rolling Railcars

April 09, 1992 – ATSF – Cheto, AZ FE-09-92 Free-Rolling Railcars
A three-person crew was called to operate a road local and arrived at a location where an eight-car drop would be necessary. After a job briefing, the engineer was at the throttle, the conductor at the switch and the brakeman was riding the first car of the drop, “A” end. The engineer began to pull, the brakeman lifted the pin, the engineer accelerated the locomotive beyond the switch, the conductor got the switch and the cars began free rolling into the yard. However, the speed of the movement would not allow the brakeman to safely dismount and, just before impact with another cut of cars, the brakeman attempted to dismount from the car he was riding and was killed as the cars rolled over him.

October 23, 1992 – GTW – Dearborn, MI FE-34-92 Free-Rolling Railcars
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.

July 05, 1994 – BN – Essex, MT FE-16-94 Free-Rolling Railcars
A three-person work train crew was in the process of dropping 14 cars they thought were empty into a quarry-loading track. The brakeman was riding the leading and brake end of the car. As the cars were separated from the engine, he set the high brake on the car he was riding. However, because there were residual materials in many of the cars, the weight added momentum to the cars and the brakeman got off and back on between two other cars in an attempt to set more hand brakes. When the cut of cars collided with a ballast pile, used as a bumping post, that was located at the end of the track, he was crushed to death between the two cars he was trying to apply hand brakes.

April 21, 2000 – BNSF – Galesburg, IL FE-13-00 Free-Rolling Railcars
A three-person switching crew was in the process of hauling cars over the hump and the foreman of the crew was observing the move from between his track and another track that was being used by another yard job. The foreman was killed when he fouled and then was struck by a free rolling car on the adjacent track.

July 13, 2001 – CPRS – Bensenville, IL FE-21-01 Free-Rolling Railcars
The three-person crew had just finished kicking a flat car into a clear track and the conductor was about to mount the leading end of a cut of cars to be kicked into another track further down the lead. As the conductor issued instructions to the engineer to begin the move, and to the crew, the flat car had not cleared the fouling point to the lead. The shove move rode up onto the flat car derailing the car the conductor was riding on which crushed him to death.

February 16, 2003 – CSX – Syracuse, NY FE-04-03 Free-Rolling Railcars
A two-person crew was flat switching in a yard when the switchman, needed a break. He mentioned it to the yard foreman and they decided to go to break after one last car was “kicked” into a specific track. A short time after the car had been released, the foreman’s operating control unit indicated a “no poll” failure and the locomotive shut down. When the foreman couldn’t contact the switchman he went looking for him. The brakeman was found struck and killed by the last car that had been “kicked”.

Employee Tripping, Slipping, Falling

June 01, 1992 – BN – Seattle, WA FE-15-92

Employee Tripping, Slipping, Falling
also Unsecured Railcars

A four-person crew (engineer, switch foreman, 2 switchman) had 3 cars with them when they coupled onto 56 cars standing on a yard track. They were told to pull the head 16 cars and leave the remaining 40 there. They were also told that the 16 had been separated from the remaining 40. The crew pulled the 19 cars out of the track and per radio instructions from the switchman, began a shove into another track. As the movement entered the track it was struck by the 40 car cut that had been left on the first track. The switchman died falling from the cars while getting on and off the free rolling cut to set hand brakes in an attempt to stop them.

March 27, 1993 – SP – Guadalupe, CA FE-11-93

Employee Tripping, Slipping, Falling

A four-person crew (engineer, conductor, 2 brakeman) were 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.

July 21, 1995 – CR – Hershey, PA FE-23-95

Employee Tripping, Slipping, Falling

A three-person crew was switching an industry. The conductor had directed a few switching moves and then instructed the engineer to haul out of the plant. The conductor was observed by a plant employee riding on the trailing end of the first of two tank cars being pulled out of the plant. Moments later the conductor fell between the cars and was killed when he was run over by the trailing car in the two car move.

December 16, 1996 – UP – Clinton, IA FE-30-96

Employee Tripping, Slipping, Falling
also Employee Drugs and Alcohol

A three-person crew was in the process of switching a plant when the conductor sent the locomotive and cars out of one track toward the brakeman who was to handle the switches and direct the cars into another track. The conductor stopped the move after the cars had cleared an industry road crossing and the engineer waited to receive instructions from the brakeman. However, the brakeman had mounted the second head car behind the locomotives and had apparently slipped or fell from that position and was found dead by the engineer and conductor lying between and beneath the fourth head car. The brakeman tested positive for THCA & THC.

January 12, 1997 – UP – S Fontana, CA FE-02-97

Employee Tripping, Slipping, Falling

A three-person road crew arrived at a siding, pulled into the siding and stopped their train. They then cut off their locomotive consist, ran around the 50 loaded cars in their train, and tied onto the opposite end. The conductor and brakeman then positioned themselves on the leading end of the shove move and directed the engineer by radio to begin the shove into the plant. As the move entered a descending grade into the plant, the slack ran out, the conductor lost his hold on the leading car, fell in front of the car he was riding, was run over and died.

June 24, 1997 – UP – Portland, OR FE-18-97

Employee Tripping, Slipping, Falling

FE-18-97: A three-person yard switching crew was in the process of pulling a five car articulated cut of cars from out of one track with the intent of moving them to another. The yard foreman was killed

when he was run over by the leading wheels of the trailing car. It appears that the foreman tried to release a hand brake at the trailing end of the second to the last car and while attempting to do so, stumbled, fell and was run over by the trailing car.

Struck by Motor Vehicle or Loading Device

September 20, 1994 – ARR – Clear Site, AK FE-20-94 Struck by Motor Vehicle...
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, derailing the caboose and killing the brakeman.

February 17, 1999 – KCS – Kansas City, MO FE-05-99 Struck by Motor Vehicle...
A three-person switching crew was working in a piggy-back facility and had just finished shoving a cut of cars down a track to be worked by the piggy-packers (equipment used to load and unload TOFC/COFC rail shipments). The conductor was returning to the locomotive when he was struck and killed by one of the piggy-packers.

December 22, 2001 – NS – Eden, NC FE-39-01 Struck by Motor Vehicle...
A three-person, local switching crew that included a conductor in training were in the process of shoving a cut of cars over a highway road crossing at grade. The brakeman was riding one corner of the leading car and the conductor in training was riding the opposite side of the car. All warning devices were in operation when a van struck the leading end of the car knocking the brakeman off the car and under the leading wheels.

June 06, 2003 – CSX – Kingsport, TN FE-12-03 Struck by Motor Vehicle...
A three-person industrial switching crew was shoving one car on a track that ran down the middle of a two-lane road and that was located in an industrial area. The conductor was riding on one side of the car and the brakeman was riding on the other. As the move approached a standing eighteen-wheel truck awaiting permission to back into the same area that the railroad was servicing, the driver began to back up, jack-knifed the trailer, and struck the brakeman crushing him between the truck box and the car he was riding.

Unsecured Cars

June 01, 1992 – BN – Seattle, WA FE-15-92 Unsecured Cars
also Employee Tripping, Slipping, Falling
A four-person crew (engineer, switch foreman, 2 switchman) had 3 cars with them when then coupled onto 56 cars standing on a yard track. They were told to pull the head 16 cars and leave the remaining 40 there. They were also told that the 16 had been separated from the remaining 40. The crew pulled the 19 cars out of the track and per radio instructions from the switchman, began a shove into another track. As the movement entered the track it was struck by the 40 car cut that had been left on the first track. The switchman died falling from the cars while getting on and off the free rolling cut to set hand brakes in an attempt to stop them.

November 12, 1993 – ATSF – Farewell, TX FE-46-93 Unsecured Cars
also Drugs and Alcohol
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.

January 04, 1994 – BN – Hastings, NE FE-02-94 Unsecured Cars

A three-person crew were in the process of pulling a cut of cars out of a track and leaving two additional cuts sitting separately in the track. The helper was riding the cut out of the track and the foreman was last seen walking between the two remaining cuts of cars. Evidence suggests that the foreman attempted to cross over the tracks between the cars being pulled out and the first of two remaining cuts of cars when he was crushed between the cars being pulled out and the second cut of cars after they were impacted by the third, unsecured cut.

April 06, 1995 – WC – Argoe, WI FE-16-95 Unsecured Cars

A two-person crew was switching at a siding in single-track territory. The conductor left a portion of his train on the mainline and went into the siding with a cut of cars. While in on the siding, the cars left on the mainline and, as post accident investigation revealed, had been left with the air “bottled”, rolled away. The crew chased the runaway cars with the conductor riding the leading end of the lead car and the engineer, 23 cars away, shoving as directed by radio commands from the conductor. The shove move struck the runaway cars and the conductor was crushed to death as a result of the collision.

December 18, 1996 – IC – Chicago, IL FE-31-96 Unsecured Cars

A three-person yard crew was in the process of switching a plant. The brakeman was at the plant doors and the conductor and engineer had hauled out to put away a car that had been removed from the plant. After the conductor had tied onto the cars to go into the plant and begun to shove toward the plant, the car that had just been placed on an adjacent track rolled out, fouled the conductor’s movement, and crushed him between the leading car and the rolling car.

February 18, 2003 – CSX – Cheektowaga, NY FE-05-03 Unsecured Cars

A three-person switching crew was in the process of shoving cars into a track at an industry. The switch foreman was riding the leading end of the shove and directing the move when he was struck by the cut of cars that they had left on another track and which had rolled out and into his shove move.

Environment

December 30, 1993 – CR – Brook Park, OH FE-53-93 Environment

A three-person industrial switching crew was shoving over an industrial crossing within the confines of a plant. The conductor was riding the leading end of the lead car when it rode up on ice, built up within the flange-ways, and derailed the car into the side of the building. The conductor was crushed between the car he was riding and the building.

January 22, 1999 – CR – Alexander, NY FE-03-99 Environment

A three-person local switching crew was shoving a loaded covered hopper down an industrial lead. The conductor was riding on one side of the car and the brakeman was riding the other. As the car was shoved over a private crossing, the accumulation of ice and snow lifted the car off the rails and it tipped over and onto the conductor who was killed as a result of the derailment.

January 02, 2000 – CIRR – Cedar Springs, GA FE-02-00 Environment

A two-person switching crew was in the process of switching cars in a storage yard and the conductor was riding the leading end of a cut of cars being shoved down a track. The move was taking place in

dense fog and in darkness when the car he was riding collided with other cars on an adjacent track that were fouling the track he was on. The conductor was killed as a result of the collision.

Equipment

January 14, 1994 – BN – Amarillo, TX FE-03-94

Equipment

A three-person crew reported for duty and later was in the process of shoving cars down a track with the switch foreman riding the point. At the same time, another yard switching job was pulling cars in the opposite direction on an adjacent track and derailed. The foreman immediately told the other crew that they were on the ground and then told his engineer to stop the shove he was riding. The foreman was found crushed between the car he was riding and the car that derailed on the adjacent track.

January 11, 1995 – CR – Indianapolis, IN FE-02-95

Equipment

A three-person crew was in the process of switching a plant. The conductor was riding the leading end of the lead car during an eight-car shove. He had notified the engineer that he had mounted the moving car and told him by radio to continue shoving. When the engineer did not hear any more from the conductor, he stopped and the brakeman walked back to find the conductor had been run over by five of the eight cars being shoved. An exception was taken by the FRA for the absence of the “BR” end handhold that could have been used to assist the conductor in moving from the side of the car to the end of the car.

April 09, 1999 – UP – Richland, WA FE-12-99

Equipment

A three-person road switcher was in the process of dropping a car into a track. However, the locomotive was fouling the track the car was to enter. The brakeman, realizing this, jumped from the trailing end of the car and ran to the leading end to try and stop the car. The conductor, who was standing near the fouling corner of the locomotive, started up the stairwell of the locomotive when he realized what was happening. However, the stairwell was obstructed with a metal rod that had been welded into place and prevented the conductor an escape route. He was subsequently crushed between the striking car and the metal rod.

September 14, 2003 – UP - Ogden, UT FE-23-03

Equipment

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.

Drugs and Alcohol

November 12, 1993 – ATSF – Farewell, TX FE-46-93

**Drugs and Alcohol
also Unsecured Cars**

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. That car rolled into a car he and his brakeman were riding and impairment (drugs) contributed to the fatality.

December 16, 1996 – UP – Clinton, IA FE-30-96

Drugs and Alcohol

also Employee Trips, Slips, and Falls

A three-person crew was in the process of switching a plant when the conductor sent the locomotive and cars out of one track toward the brakeman who was to handle the switches and direct the cars into another track. The conductor stopped the move after the cars had cleared an industry road crossing and the engineer waited to receive instructions from the brakeman. However, the brakeman had mounted the second head car behind the locomotives and had apparently slipped or fell from that position and was found dead by the engineer and conductor lying between and beneath the fourth head car. The brakeman tested positive for THCA & THC.

January 24, 1998 – BNSF – Omaha, NE FE-02-98

Drugs and Alcohol

A three-person switching crew was working in close proximity to another switching crew and, after some discussion, but no absolute understanding of the move just made by the other crew, began to pull down the switching lead. As they approached a mis-aligned switch, the foreman jumped off the moving locomotive, ran to the switch and was in the process of “flopping it over” when the leading wheels of the locomotive entered the switch, popped the handle up, striking the foreman in the face and killing him. Post accident testing indicated that drug impairment may have contributed to the fatality.

Unexpected Movement of Railcars

June 24, 1997 – NS – Rowesville, SC FE-19-97

Unexpected Movement of Railcars

The engineer and conductor of a local road switcher were reassembling their train at a siding halfway through their work assignment. After running around the inbound cars, making a couple of switches to line up their train for the return trip, the conductor tied the EOT device onto the rear car, came back to the switch, and told the engineer to back up five cars. The engineer did not get any other radio instructions after three cars and stopped. The conductor was found dead having been run over by the leading car and not having reversed the siding switch as he had intended to do.

November 17, 1999 – UP – Lincoln, NE FE-32-99

Unexpected Movement of Railcars

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.

October 02, 2002 – CSX – Madisonville, KY FE-22-02

Unexpected Movement of Railcars

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.

December 07, 2003 – UP – San Antonio, TX

FE-35-03

Unexpected Movement of Railcars

A pitch/catch remote control operation was being run by a single operator who was struck and killed during a yard operation by his own locomotive. He stepped in front of its movement as he was headed

for the other end of a crossover switch that he intended to line for the route he intended his engine to use.

Miscellaneous

October 15, 1992 – BN – Omaha, NE FE-33-92

Miscellaneous

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.

November 16, 1992 – TTIS – Maysville, KY FE-39-92

Miscellaneous

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.

May 22, 1993 – ATSF – El Paso, TX FE-20-93

Miscellaneous

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.

June 04, 1993 – SEPTA – Devon, PA FE-22-93

Miscellaneous

A commuter train locomotive engineer fell from the operating compartment of the train he was operating while it was moving. Two minutes before he fell speed had been reduced from 61 to 51 MPH.

September 02, 1993 – ATSF – Carlsbad, NM FE-35-93

Miscellaneous

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.

January 18, 1994 – CSX – Bainbridge, GA FE-04-94

Miscellaneous

A three-person switching crew was in the process of shoving cars down an industrial lead. The conductor and brakeman were riding the end platform of a tank car and, as the move approached a highway/rail grade crossing, the brakeman gave the engineer a car count in which to stop. As a result, there was some "slack action" and the conductor fell from the end platform onto the rail and was pronounced dead at the hospital over five hours later.

March 21, 1995 – SP – Bassett, CA FE-17-95

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.

October 26, 1998 – CCP – Cicero, IL FE-28-98

Miscellaneous

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.

May 31, 2000 – UP – Pine Bluff, AR FE-17-00

Miscellaneous

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.

April 08, 2001 – BNSF – Clark, OK FE-14-01

Miscellaneous

The conductor of a road switcher pulled his train into a yard, got off, made a cut behind three cars and told the engineer to pull ahead to clear a crossover switch he intended to use. After getting the crossover, he mounted the leading end of the move and told the engineer to come back seven cars. Three car lengths later, the movement passed through one end of another crossover switch in reverse position and diverted the movement into the side of a standing cut of cars crushing the conductor to death.

September 24, 2003 – BNSF – Fresno, CA FE-25-03

Miscellaneous

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.