Apply SOFA Operating Recommendations – Recognize Special Switching Hazards

Postponing Casualty does not Prevent Casualty

SOFA-defined Severe Injuries
Slipping, tripping, stumbling, and losing balance were events associated with nearly half of the 1,380 Severe Injuries occurring from Jan 1, 1997 through Dec 31, 2007.

What were some of the other events? page 8

Why is this statement not quite true?
In 2005 there were 11 Switching Fatalities. In 2006 and 2007 there were 7 Switching Fatalities each, per year. So 8 lives were saved. Answer on page 4

2008 Fatalities to-date
2

Jan 8: Waukegan, IL
A UP conductor, working a METRA commuter train, was struck by another METRA commuter train while he was stooped over the crossover switch connecting the two main tracks located just South of the passenger station.

Feb 3: Chicago, IL
A brakeman, working between cars in his train, stepped out from between two cars and into the path of a main track Canadian National train that was passing the stopped NS train.

Switching Fatality and Severe Injury Update
2008 First Quarter
Fill in the Missing Words in the Five SOFA Operating Recommendations

(Advisory: This is a challenging safety exercise!)

Recommendation 1
Any crew member intending to _____ 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 _____ 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 _____.

Recommendation 2
When _____ 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 _____ 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 _____ with yardmaster and/or other crew members.
Fill in the Missing Words in the Five SOFA Operating Recommendations

**Recommendation 3**
At the beginning of each tour of duty, all crew members will meet and discuss all _____ matters and work to be accomplished. Additional _____ will be held _____ 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 _____ move without a specified _____ 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 _____ 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 _____ 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, _____, and supervisory observation must be utilized to insure employees are able to perform service in a _____ manner.

**Answers:**
- Recommendation 1: foul, inspect, move
- Recommendation 2: two, switching, communication
- Recommendation 3: safety, briefings, any
- Recommendation 4: shove, distance, combination
- Recommendation 5: service, mentoring, safe
Selected Casualty on the Railroad by Month

1,380 SOFA-defined Severe Injuries: January 1, 1997 to December 31, 2007

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<tr>
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<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
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<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
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162 Switching Fatalities: Jan 1, 1992 through March 15, 2008

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Why statement on page 1 is not quite true:
If crews work safely and avoid casualty in one year, as by Applying SOFA Operating Recommendations – Recognizing Special Switching Hazards, they must also work safely throughout their careers. When studying the Switching Fatality cases in the Review Section, note the ages and years of service of the deceased. Crews must always work safely. **Postponing casualty does not prevent casualty.**
162 Switching Fatalities Classified by Type: Jan 1, 1992 through Mar 15, 2008
Involving Operating Recommendations; and Involving only Special Switching Hazards

Special Switching Hazards  Recommendations
SOFA-defined Severe Injuries
January 1992 through December 2007

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<td>6</td>
<td>126</td>
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|    | 139  | 137  | 135  | 139  | 140  | 123  | 114  | 123  | 122  | 100  | 108  | 1,380 |

- **138.0** Severe Injuries per year on average: 1997 through 2001
- **115.0** Severe Injuries per year on average: 2002 through 2007
- **108** Severe Injuries in 2007: second lowest count in 11 years

*Severe Injuries* are defined by the SOFA Working Group as (1) potentially life threatening; (2) high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) result from a high-energy impact to the human body. ‘Severe Injuries’ include amputation, dislocation of the neck, loss of eye, electric shock or burn, and fracture to any bone except the lower arm, fingers, foot, and toes, See *Severe Injuries to Train and Engine Service Employees: Data Description and Injury Characteristics*. July 2001. Available at: [http://www.fra.dot.gov/us/content/1781](http://www.fra.dot.gov/us/content/1781) [accessed March 15, 2008]
SOFA-defined Severe Injuries are Trending Downward
January 1, 1997 through December 31, 2007
### Events associated with 1,380 SOFA-defined Severe Injuries
#### January 1, 1997 through December 31, 2007

<table>
<thead>
<tr>
<th>FRA Event Code</th>
<th>Short Description</th>
<th>Number</th>
<th>Percent of All</th>
<th>Cumulative Percent</th>
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<tr>
<td>70</td>
<td>slipped, fell, stumbled, other</td>
<td>175</td>
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<td>12.7</td>
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<tr>
<td>54</td>
<td>slipped, fell, stumbled, etc. due to object</td>
<td>154</td>
<td>11.2</td>
<td>23.8</td>
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<tr>
<td>52</td>
<td>slipped, fell, stumbled, etc. due to climatic condition</td>
<td>132</td>
<td>9.6</td>
<td>33.4</td>
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<tr>
<td>34</td>
<td>lost balance</td>
<td>98</td>
<td>7.1</td>
<td>40.5</td>
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<tr>
<td>51</td>
<td>slipped, fell, stumbled, etc. due to irregular surface</td>
<td>94</td>
<td>6.8</td>
<td>47.3</td>
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<tr>
<td>59</td>
<td>struck by on-track equipment</td>
<td>90</td>
<td>6.5</td>
<td>53.8</td>
</tr>
<tr>
<td>17</td>
<td>collision between on-track equipment</td>
<td>68</td>
<td>4.9</td>
<td>58.8</td>
</tr>
<tr>
<td>61</td>
<td>struck against object</td>
<td>51</td>
<td>3.7</td>
<td>62.5</td>
</tr>
<tr>
<td>35</td>
<td>missed handhold, grabiron, step, etc.</td>
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<td>3.2</td>
<td>65.7</td>
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<tr>
<td>99</td>
<td>other (describe in narrative)</td>
<td>39</td>
<td>2.8</td>
<td>68.5</td>
</tr>
<tr>
<td>68</td>
<td>caught, crushed, pinched, other</td>
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<td>2.8</td>
<td>71.2</td>
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<td>collision/impact-auto, truck, bus, van, etc.</td>
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<td>64</td>
<td>sudden/unexpected movement of on-track equipment</td>
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<td>75.8</td>
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<td>50</td>
<td>slack action, draft, compressive buff/coupling</td>
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<td>derailments</td>
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<td>80.1</td>
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<td>32</td>
<td>highway-rail collision/impact</td>
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<td>slipped, fell, stumbled, etc. on oil, grease</td>
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<td>71</td>
<td>sudden, unexpected movement, other</td>
<td>11</td>
<td>0.8</td>
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<td>7</td>
<td>bodily function/sudden movement, e.g., sneezing</td>
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<td><strong>ALL OTHER</strong></td>
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<td><strong>105</strong></td>
<td><strong>7.6</strong></td>
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SOFA Working Group

current through March 15, 2008
Occurrence Location (Line of Road) of 1,380 SOFA-defined Severe Injuries

January 1, 1997 through December 31, 2007

- Yard: 676
- Main/Branch: 372
- Industry: 164
- Siding: 66
- Other: 44
- Highway/Roadway: 37
- Passenger Terminal: 21
Distribution of Employee Ages for 1,380 SOFA-defined Severe Injuries

January 1, 1997 through December 31, 2007
Amputations
January 1992 through December 2007

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

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- **20.6**  Amputations per year on average: 1997 through 2001
- **13.6**  Amputations per year on average: 2002 through 2007
- **16**    Amputations in 2007: an increase of 4 from 2006; and higher than recent average
Switching Fatality Review Section

This section contains:

- **Summaries of the Seven Switching Fatalities in 2007.** The information contained in these summaries is preliminary, pending investigation.

- **Switching Fatality Cases for Review: February, March, and April.** The Switching Fatality narrative summaries are from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information about each Fatality is taken from the *SOFA Matrix*, the SOFA Working Group’s electronic database.

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

SOFA reports, including a complete discussion of the Five Operating Recommendations and Special Switching Hazards, are available at: http://www.fra.dot.gov/us/content/1781 [accessed March 15, 2008]

*Apply SOFA Operating Recommendations – Recognize Special Switching Hazards*
Summaries of the Seven Switching Fatalities in 2007
(Information is preliminary, pending investigation)

Date: July 8, 2007, Sunday
Location: Berry, AZ
Railroad: BNSF
SOFA Fatality Type: possible Special Switching Hazard (tripping, slipping, falling)

A 37-year-old conductor was in the process of setting off nine cars on the siding at Berry when radio communication ceased. The locomotive engineer stopped, walked back to check on the conductor, and found him pinned under the wheel of a freight car. He was later pronounced dead.

Date: July 27, 2007, Friday
Location: Fulton, KY
Railroad: CN
SOFA Fatality Type: possible 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.)

A 46-year-old conductor was a member of a 3 person switching crew that was classifying cars into various tracks in the yard. The trainman was making the final few switching moves and heard the conductor state that he was hurt. The trainman found the conductor between two cars and determined that he had been knocked down and run over by a rail car.

Date: August 25, 2007, Saturday
Location: East Chicago, IN
Railroad: IHBR
SOFA Fatality Type: possible Special Switching Hazard (tripping, slipping, falling)

A two person conventional yard switching assignment was shoving a cut of cars into a track and the move was being controlled by the conductor. Radio communication between the conductor and the engineer ceased, the movement was stopped, and the conductor was found by the engineer dead and under the leading wheels of the second leading car of the shove.
Summaries of the Seven Switching Fatalities in 2007 (cont.)
(Information is preliminary, pending investigation)

Date: August 30, 2007, Thursday
Location: Stockton, CA
Railroad: BNSF
SOFA Fatality Type: possible Special Switching Hazard (close clearance)

A Remote Control Operator was riding the leading end of a two car shove move and in control of the move when he struck the side of another car that was fouling the crossover switch he was lined to operate through. As a result, the RCO was killed.

Date: October 27, 2007, Saturday
Location: Russell, KY
Railroad: CSX
SOFA Fatality Type: possible Special Switching Hazard

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

Date: November 02, 2007, Friday
Location: Mayflower, AR
Railroad: UP
SOFA Fatality Type: possible Special Switching Hazard

A 33 year-old conductor had dismounted his locomotive and lined the switch ahead of his train for the siding in anticipation of a meet with an opposing train. As the opposing train began passing the conductor, he was apparently struck a glancing blow by the train and was later pronounced dead by attending medical personnel.

Date: December 28, 2007, Friday
Location: Bristol, IL
Railroad: BNSF
SOFA Fatality Type: possible Special Switching Hazard

A 61 year-old conductor was switching cars at an industry when he was struck and killed by rolling on track equipment.
# 9 February Switching Fatalities: January 1, 1992 through March 15, 2008

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<td>struck by on-track equipment</td>
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<td>on track</td>
<td>struck by on-track equipment</td>
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<td>02/02/97</td>
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<td>27</td>
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<td>standing</td>
<td>beside track</td>
<td>struck by on-track equipment</td>
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<td></td>
<td></td>
<td>To be reviewed</td>
<td></td>
<td>Special Switching Hazard</td>
</tr>
</tbody>
</table>

*Apply SOFA Operating Recommendations – Recognize Special Switching Hazards*
No. 1 of 9: February 17, 1995 – CR – St. James, OH

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.

| SOFA Operating Recommendation(s): | 3, 4 |
| Possible Contributing Factor: | Switch improperly lined |
| Possible Contributing Factor: | Employee on or fouling track |
| Possible Contributing Factor: | Radio communication, improper |

Day of Week: Friday  
Time of Fatal Event: 11:15 AM  
Time on Duty (hours: minutes): 4:45  
Temperature (Fahrenheit): 39  
Direction of Movement: shoved  
Crew's Next Move: cut cars  
Death Result of Train Movement? yes  
Track Type: industrial/spot/load-unload/stub track  
Hit by Own Equipment? yes  
Striking Train Within Rules? no  
Speed of Equipment (mph): 2  
Deceased Regular Job? yes  
Crew Size: 3  
Drugs Present? no  
Drugs a Factor? no  
Emergency Response Procedures Followed? yes

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No. 2 of 9: February 24, 1995 – ATSF – Amarillo, TX

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.

| SOFA Operating Recommendation(s): | 1, 2 |
| Possible Contributing Factor: | Instructions to train/yard crew improper |

Day of Week: Friday  
Time of Fatal Event: 9:45 AM  
Time on Duty (hours: minutes): 2:15  
Temperature (Fahrenheit): 48  
Direction of Movement: free-running  
Death Result of Train Movement? yes  
Other Movements Nearby? yes  
Track Type: yard/flat/rec/dept  
Hit by Own Equipment? no  
Striking Train Within Rules? yes  
Speed of Equipment (mph): 6  
Deceased Regular Job? yes  
Crew Size: 4  
Drugs Present? no  
Drugs a Factor? no  
Emergency Response Procedures Followed? yes
No. 3 of 9: February 02, 1997 – CR – Burns Harbor, IN

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.

**SOFA Operating Recommendation(s):**

Possible Contributing Factor: 2

- Shoving movement, absence of a man on or at leading end of movement

Day of Week: Sunday
Time of Fatal Event: 9:55 PM
Temperature (Fahrenheit): 30
Direction of Movement: shoved
Crew's Next Move: begin switching
Death Result of Train Movement?: yes
Other Movements Nearby?: yes
Track Type: yard/flat/classification
Hit by Own Equipment?: no
Striking Train Within Rules?: no
Speed of Equipment (mph): 11
Crew Size: 3
Drugs Present?: no
Drugs a Factor?: no

No. 4 of 9: February 04, 1998 – BRC – Bedford Park, IL

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.

**SOFA Operating Recommendation(s):**

Possible Contributing Factor: 2

- Employee on or fouling track
- Close or no clearance
- Track centerline at 13 feet

Day of Week: Wednesday
Time of Fatal Event: 5:33 PM
Time on Duty (hours: minutes): 3:03
Temperature (Fahrenheit): 35
Direction of Movement: free-running
couple track
Crew's Next Move: no
Death Result of Train Movement?: no
Other Movements Nearby?: yes
Track Type: yard/hump/classification
Hit by Own Equipment?: no
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
No. 5 of 9: February 17, 1999 – BRC – Kansas City, MO
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.

**Special Switching Hazard(s):**
Possible Contributing Factor: Struck by Motor Vehicle

External Circumstances:
- Day of Week: Wednesday
- Time of Fatal Event: 7:05 PM
- Time on Duty (hours: minutes): 4:05
- Temperature (Fahrenheit): 42
- Crew's Next Move: cut off power
- Death Result of Train Movement?: no
- Track Type: yard/flat/industrial
- Hit by Own Equipment?: no
- Striking Train Within Rules?: no
- Speed of Equipment (mph): 0
- Crew Size: 3
- Drugs Present?: no
- Drugs a Factor?: no
- Emergency Response Procedures Followed?: yes

No. 6 of 9: February 11, 2003 – CNIC – Flat Rock, MI
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.

**SOFA Operating Recommendation(s):**
Possible Contributing Factor: 2
- Employee on or fouling track
- Shoving movement, absence of a man on or at leading end of movement
- Other general switching rules
- Poor crew utilization
- Shove protected from within moving taxi rather than from the actual leading point of movement because of cool weather

External Circumstances:
- Day of Week: Tuesday
- Time of Fatal Event: 4:55 PM
- Time on Duty (hours: minutes): 1:30
- Temperature (Fahrenheit): 21
- Direction of Movement: shoved
- Crew's Next Move: stop train
- Death Result of Train Movement?: yes
- Other Movements Nearby?: yes
- Track Type: yard/lead
- Hit by Own Equipment?: no
- Speed of Equipment (mph): 8
- Deceased Regular Job?: yes
- Crew Size: 3
- Drugs Present?: no
- Drugs a Factor?: no
No. 7 of 9: February 16, 2003 – CSX – Syracuse, NY

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”.

**Special Switching Hazard(s):**
- Free-Rolling Railcars
  - Possible Contributing Factor: Employee on or fouling track
  - Possible Contributing Factor: Other extreme environmental condition
  - Possible Contributing Factor: Employee physical condition, other
  - External Circumstances: Slipped, tripped or fell due to climatic conditions

**Day of Week:** Sunday
**Time of Fatal Event:** 12:24 AM
**Time on Duty (hours: minutes):** 1:24
**Temperature (Fahrenheit):** -15
**Direction of Movement:** shoved/free-running
**Crew's Next Move:** switch cars
**Death Result of Train Movement?** yes
**Other Movements Nearby?** no
**Track Type:** yard/lead
**Hit by Own Equipment?** yes
**Striking Train Within Rules?** yes
**Speed of Equipment (mph):** 8
**Deceased Regular Job?** no
**Had Deceased Worked There Before?** yes
**Crew Size:** 2
**Drugs Present?** no
**Drugs a Factor?** no
**Emergency Response Procedures Followed?** yes

No. 8 of 9: February 18, 2003 – CSX – Cheektowaga, NY

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.

**Special Switching Hazard(s):**
- Unsecured Cars
  - Possible Contributing Factor: Failure to properly secure hand brake on car(s)
  - Possible Contributing Factor: Failure to couple
  - Possible Contributing Factor: Passed couplers

**Day of Week:** Tuesday
**Time of Fatal Event:** 12:45 PM
**Time on Duty (hours: minutes):** 5:54
**Temperature (Fahrenheit):** 18
**Direction of Movement:** shoved/free-running
**Crew's Next Move:** spot
**Death Result of Train Movement?** yes
**Other Movements Nearby?** no
**Track Type:** lead/industrial
**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

No. 9 of 9: February 3, 2008 – NS – Chicago, IL

A brakeman, working between cars in his train, stepped out from between two cars and into the path of a main track Canadian National train that was passing the stopped NS train.
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<th>#</th>
<th>Date</th>
<th>RR</th>
<th>Location</th>
<th>Age</th>
<th>Service (yrs)</th>
<th>Employee’s Job</th>
<th>Employee Act</th>
<th>Employee Location</th>
<th>Fatal Event</th>
<th>SOFA Recommendation(s)</th>
<th>Special Switching Hazard</th>
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<td>Fort Pierce, FL</td>
<td>36</td>
<td>16</td>
<td>yard conductor</td>
<td>riding</td>
<td>near on-track equipment on ground</td>
<td>derailments</td>
<td>4</td>
<td></td>
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<tr>
<td>2</td>
<td>03/27/93</td>
<td>SP</td>
<td>Guadalupe, CA</td>
<td>39</td>
<td>19</td>
<td>road brakemen</td>
<td>riding</td>
<td>on end of car</td>
<td>struck by object</td>
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<td></td>
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<td>3</td>
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<td>Aiken, SC</td>
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<td>22</td>
<td>road brakemen</td>
<td>adjusting coupler</td>
<td>on track</td>
<td>struck by on-track equipment</td>
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<td>0.34</td>
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<td>between cars/loc</td>
<td>struck by on-track equipment</td>
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<td>Riverdale, IL</td>
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<td>Willmar, MN</td>
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<td>3.75</td>
<td>yard brakeman</td>
<td>standing</td>
<td>between cars/loc</td>
<td>struck by on-track equipment</td>
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<td>13</td>
<td>road engineer</td>
<td>getting on</td>
<td>near on-track equipment on ground</td>
<td>struck by on-track equipment</td>
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Apply SOFA Operating Recommendations – Recognize Special Switching Hazards

SOFA Working Group
No. 1 of 9: March 11, 1992 – FEC – Fort Pierce, FL
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.

SOFA Operating Recommendation(s):
Possible Contributing Factor:
Possible Contributing Factor:
External Circumstances:

Day of Week: Wednesday
Time of Fatal Event: 1:15 AM
Time on Duty (hours: minutes): 6:15
Temperature (Fahrenheit): 71
Direction of Movement: shoved
Crew's Next Move: couple
Death Result of Train Movement? yes
Other Movements Nearby? no
Track Type: yard/classification/flat
Hit by Own Equipment? yes
Striking Train Within Rules? yes
Speed of Equipment (mph): 5
Deceased Regular Job? no
Had Deceased Worked There Before? no
Crew Size: 2
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes

No. 2 of 9: March 27, 1993 – SP – Guadalupe, CA
A four-person crew (engineer, conductor, 2 brakemen) 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.

Special Switching Hazard(s):
Possible Contributing Factor:
External Circumstances:

Day of Week: Saturday
Time of Fatal Event: 12:30 PM
Time on Duty (hours: minutes): 1:00
Temperature (Fahrenheit): 60
Direction of Movement: pulled
Crew's Next Move: couple track
Death Result of Train Movement? yes
Track Type: yard/flat/classification
Hit by Own Equipment? yes
Striking Train Within Rules? no
Speed of Equipment (mph): 2
Crew Size: 4
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes
**No. 3 of 9: March 02, 1995 – NS – Aiken, SC**

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.

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<td>Possible Contributing Factor:</td>
<td>Failure to provide adequate space between equipment</td>
</tr>
<tr>
<td>Possible Contributing Factor:</td>
<td>Poor intra-crew communication about work in progress</td>
</tr>
</tbody>
</table>

| Day of Week:             | Thursday |
| Time of Fatal Event:     | 9:44 AM  |
| Time on Duty (hours: minutes): | 2:15 |
| Temperature (Fahrenheit): | 45      |
| Direction of Movement:   | shoved   |
| Death Result of Train Movement? | yes |
| Other Movements Nearby?  | no       |
| Track Type:              | main     |
| Hit by Own Equipment?    | yes      |
| Striking Train Within Rules? | yes |
| Speed of Equipment (mph): | 1       |
| Crew Size:               | 3        |
| Drugs Present?           | no       |
| Drugs a Factor?          | no       |
| Emergency Response Procedures Followed? | 6 minutes to tell dispatcher, 30 min. for EMS arrival |

**No. 4 of 9: March 21, 1995 – SP – Bassett, CA**

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.

<table>
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<tr>
<th>Special Switching Hazard(s):</th>
<th>Other Special Hazard or Event (fouling track)</th>
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</thead>
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<tr>
<td>Possible Contributing Factor:</td>
<td>Employee on or fouling track</td>
</tr>
<tr>
<td>External Circumstances:</td>
<td>Employee physical condition, other</td>
</tr>
</tbody>
</table>

| Day of Week:     | Friday |
| Time of Fatal Event: | 8:40 AM |
| Time on Duty (hours: minutes): | 1:40 |
| Direction of Movement: | shoved |
| Crew's Next Move:  | coupling |
| Death Result of Train Movement? | yes |
| Other Movements Nearby? | no |
| Track Type:       | industrial/outside/stub/track |
| Hit by Own Equipment? | yes |
| Striking Train Within Rules? | yes |
| Speed of Equipment (mph): | 4 |
| Deceased Regular Job? | yes |
| Crew Size:        | 3     |
| Drugs Present?    | no    |
| Drugs a Factor?   | No    |
No. 5 of 9: March 20, 1996 – BRC – Bedford Park, IL
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.

SOFA Operating Recommendation(s):
Possible Contributing Factor:
External Circumstances:

Day of Week: Wednesday
Time of Fatal Event: 11:25 PM
Time on Duty (hours: minutes): 0:25
Temperature (Fahrenheit): 28
Direction of Movement: free-running
crew's Next Move: couple track
Death Result of Train Movement?: yes
type: classification
Hit by Own Equipment?: yes
Striking Train Within Rules?: yes
Speed of Equipment (mph): 1
Crew Size: 3
Drugs Present?: no
Drugs a Factor?: no
Emergency Response Procedures Followed?: yes

No. 6 of 9: March 09, 2000 – IHB – Riverdale, IL
The employee was struck by an unsecured cut of cars that rolled into him while he was attempting to adjust the coupler or drawbar.

SOFA Operating Recommendation(s):
Possible Contributing Factor:
Possible Contributing Factor:
Possible Contributing Factor:

Day of Week: Thursday
Time of Fatal Event: 4:20 AM
Time on Duty (hours: minutes): 5:05
Temperature (Fahrenheit): 54
Direction of Movement: free-running
pull track
Crew's Next Move:
Death Result of Train Movement?: yes
Other Movements Nearby?: no
Track Type: hump/classification
Hit by Own Equipment?: yes
Striking Train Within Rules?: no
Speed of Equipment (mph): 1
Deceased Regular Job?: yes
Crew Size: 3
Drugs Present?: No
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 pulled out of the track.

SOFA Operating Recommendation(s):
1
Possible Contributing Factor: Employee on or fouling track
Possible Contributing Factor: Snow, ice, mud, gravel, coal etc. on the track
External Circumstances: 3' of snow
Day of Week: Saturday
Time of Fatal Event: 7:15 PM
Time on Duty (hours: minutes): 3:45
Temperature (Fahrenheit): 30
Direction of Movement: pulled/free-running
Crew's Next Move: couple to another track
Death Result of Train Movement? yes
Other Movements Nearby? no
Track Type: yard/flat/classification
Hit by Own Equipment? yes
Speed of Equipment (mph): 7
Deceased Regular Job? yes
Crew Size: 3
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes

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.

Special Switching Hazard(s):
Close Clearance and Struck by Mainline Trains
Possible Contributing Factor: Close or no clearance
Possible Contributing Factor: Other miscellaneous causes
Possible Contributing Factor: Speed, other
External Circumstances: Struck by 111 mph train at night
Day of Week: Thursday
Time of Fatal Event: 12:24 PM
Time on Duty (hours: minutes): 2:26
Direction of Movement: pulled
Crew's Next Move: brake test
Death Result of Train Movement? yes
Other Movements Nearby? yes
Track Type: main
Hit by Own Equipment? no
Striking Train Within Rules? yes
Speed of Equipment (mph): 110
Deceased Regular Job? yes
Crew Size: 2
Drugs Present? no
Drugs a Factor? no

A 46-year old Metro North Commuter Rail (MNCW) conductor, with 27-years service, killed when struck by his own equipment at the Metro North Stamford Yard, Stamford, CT.
### 12 April Switching Fatalities: January 1, 1992 through March 15, 2008

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>RR</th>
<th>Location</th>
<th>Age</th>
<th>Service (yrs)</th>
<th>Employee's Job</th>
<th>Employee Act</th>
<th>Employee Location</th>
<th>Fatal Event</th>
<th>SOFA Recommendation(s)</th>
<th>Special Switching Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>04/09/92</td>
<td>ATSF</td>
<td>Cheto, AZ</td>
<td>54</td>
<td>13</td>
<td>road engineer</td>
<td>opening/closing angle cock</td>
<td>near on-track equip-on ground</td>
<td>struck by on-track equipment</td>
<td>Free-Rolling Railcars</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>04/13/93</td>
<td>CSX</td>
<td>Dwale, KY</td>
<td>44</td>
<td>16</td>
<td>road brakemen</td>
<td>walking</td>
<td>on track</td>
<td>struck by on-track equipment</td>
<td>Struck by Mainline Trains</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>04/12/94</td>
<td>SP</td>
<td>Houston, TX</td>
<td>62</td>
<td>37</td>
<td>yard conductor</td>
<td>riding</td>
<td>on side of car</td>
<td>struck against object</td>
<td>Close Clearance</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>04/06/95</td>
<td>WC</td>
<td>Argoe, WI</td>
<td>45</td>
<td>7</td>
<td>road conductor</td>
<td>riding</td>
<td>on end of car</td>
<td>collision between on-track equipment</td>
<td>Unsecured Cars</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>04/02/99</td>
<td>DME</td>
<td>Waseca, MN</td>
<td>54</td>
<td>21</td>
<td>yard brakeman</td>
<td>coupling air hose</td>
<td>between cars/loc</td>
<td>struck by on-track equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>04/09/99</td>
<td>UP</td>
<td>Richland, WA</td>
<td>58</td>
<td>39</td>
<td>road conductor</td>
<td>standing</td>
<td>in/on loc</td>
<td>collision between on-track equipment</td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>04/21/00</td>
<td>BNSF</td>
<td>Galesburg, IL</td>
<td>60</td>
<td>32</td>
<td>yard conductor</td>
<td>standing</td>
<td>beside track</td>
<td>struck by on-track equipment</td>
<td>Free-Rolling Railcars</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>04/08/01</td>
<td>BNSF</td>
<td>Clark, OK</td>
<td>35</td>
<td>3.75</td>
<td>road conductor</td>
<td>riding</td>
<td>on side of car</td>
<td>collision between on-track equipment</td>
<td>Miscellaneous</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>04/11/03</td>
<td>UP</td>
<td>Pocatello, ID</td>
<td>55</td>
<td>23</td>
<td>road conductor</td>
<td>riding</td>
<td>on end of car</td>
<td>derailments</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>04/06/05</td>
<td>NS</td>
<td>Selma, AL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>To be reviewed</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>04/11/05</td>
<td>UP</td>
<td>Ogden, UT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>To be reviewed</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>04/02/06</td>
<td>UP</td>
<td>Palmer, MI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tripping, Slipping, Falling</td>
<td></td>
</tr>
</tbody>
</table>
No. 1 of 12: April 09, 1992 – ATSF – Cheto, AZ
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.

<table>
<thead>
<tr>
<th>Special Switching Hazard(s):</th>
<th>Free-Rolling Railcars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Contributing Factor:</td>
<td>Switching movement, excessive speed</td>
</tr>
<tr>
<td>External Circumstances:</td>
<td>Walkway conditions</td>
</tr>
</tbody>
</table>

Day of Week: Thursday
Time of Fatal Event: 2:39 PM
Time on Duty (hours: minutes): 4:39
Direction of Movement: free-running
Crew's Next Move: couple to train
Death Result of Train Movement?: yes
Other Movements Nearby?: no
Track Type: main/storage
Hit by Own Equipment?: yes
Striking Train Within Rules?: no
Speed of Equipment (mph): 10
Crew Size: 3
Drugs Present?: no
Drugs a Factor?: no
Emergency Response Procedures Followed?: yes

No. 2 of 12: April 13, 1993 – CSX - Dwale, KY
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.

<table>
<thead>
<tr>
<th>Special Switching Hazard(s):</th>
<th>Struck by Mainline Trains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Contributing Factor:</td>
<td>Employee on or fouling track</td>
</tr>
<tr>
<td>External Circumstances:</td>
<td>Shocked by crossing gate arm</td>
</tr>
</tbody>
</table>

Day of Week: Tuesday
Time of Fatal Event: 6:40 PM
Time on Duty (hours: minutes): 5:25
Direction of Movement: pulled
Crew's Next Move: run around train
Death Result of Train Movement?: yes
Other Movements Nearby?: yes
Track Type: main
Hit by Own Equipment?: no
Striking Train Within Rules?: yes
Speed of Equipment (mph): 18
Crew Size: 3
Drugs Present?: no
Drugs a Factor?: no
No. 3 of 12: April 12, 1994 – SP – Houston, TX
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 forth leading car, and was later pronounced dead at the hospital.

<table>
<thead>
<tr>
<th>Special Switching Hazard(s):</th>
<th>Close Clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Contributing Factor:</td>
<td>Close or no clearance</td>
</tr>
<tr>
<td>Day of Week:</td>
<td>Tuesday</td>
</tr>
<tr>
<td>Time of Fatal Event:</td>
<td>7:45 AM</td>
</tr>
<tr>
<td>Time on Duty (hours: minutes):</td>
<td>8:45</td>
</tr>
<tr>
<td>Direction of Movement:</td>
<td>pulled</td>
</tr>
<tr>
<td>Crew's Next Move:</td>
<td>make cut</td>
</tr>
<tr>
<td>Death Result of Train Movement?:</td>
<td>yes</td>
</tr>
<tr>
<td>Other Movements Nearby?:</td>
<td>no</td>
</tr>
<tr>
<td>Track Type:</td>
<td>repair/storage/inside</td>
</tr>
<tr>
<td>Hit by Own Equipment?:</td>
<td>yes</td>
</tr>
<tr>
<td>Striking Train Within Rules?:</td>
<td>yes</td>
</tr>
<tr>
<td>Speed of Equipment (mph):</td>
<td>5</td>
</tr>
<tr>
<td>Deceased Regular Job?:</td>
<td>yes</td>
</tr>
<tr>
<td>Crew Size:</td>
<td>3</td>
</tr>
<tr>
<td>Drugs Present?:</td>
<td>no</td>
</tr>
<tr>
<td>Drugs a Factor?:</td>
<td>no</td>
</tr>
<tr>
<td>Emergency Response Procedures Followed?:</td>
<td>yes</td>
</tr>
</tbody>
</table>

No. 4 of 12: April 06, 1995 – WC – Argoe, WI
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.

<table>
<thead>
<tr>
<th>Special Switching Hazard(s):</th>
<th>Unsecured Cars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Contributing Factor:</td>
<td>Failure to properly secure hand brake on car(s) railroad</td>
</tr>
<tr>
<td>employee</td>
<td></td>
</tr>
<tr>
<td>Possible Contributing Factor:</td>
<td>Improper operation of train line air connections (bottling the air)</td>
</tr>
<tr>
<td></td>
<td>Failure to comply with restricted speed (engineer had history of speeding)</td>
</tr>
<tr>
<td>Day of Week:</td>
<td>Thursday</td>
</tr>
<tr>
<td>Time of Fatal Event:</td>
<td>1:56 AM</td>
</tr>
<tr>
<td>Time on Duty (hours: minutes):</td>
<td>7:11</td>
</tr>
<tr>
<td>Temperature (Fahrenheit):</td>
<td>18</td>
</tr>
<tr>
<td>Direction of Movement:</td>
<td>shoved</td>
</tr>
<tr>
<td>Crew's Next Move:</td>
<td>coupling</td>
</tr>
<tr>
<td>Death Result of Train Movement?:</td>
<td>yes</td>
</tr>
<tr>
<td>Other Movements Nearby?:</td>
<td>no</td>
</tr>
<tr>
<td>Track Type:</td>
<td>main</td>
</tr>
<tr>
<td>Hit by Own Equipment?:</td>
<td>yes</td>
</tr>
<tr>
<td>Striking Train Within Rules?:</td>
<td>no</td>
</tr>
<tr>
<td>Speed of Equipment (mph):</td>
<td>14</td>
</tr>
<tr>
<td>Deceased Regular Job?:</td>
<td>yes</td>
</tr>
<tr>
<td>Crew Size:</td>
<td>2</td>
</tr>
<tr>
<td>Emergency Response Procedures Followed?:</td>
<td>yes; 30 min. EMS response time</td>
</tr>
</tbody>
</table>
No. 5 of 12: April 02, 1999 – DME – Waseca, MN

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.

SOFA Operating Recommendation(s): 3
Possible Contributing Factor: Employee on or fouling track

Day of Week: Monday
Time of Fatal Event: 1:03 PM
Time on Duty (hours: minutes): 6:38
Temperature (Fahrenheit): 60
Direction of Movement: free-running
Crew's Next Move: switch cars
Death Result of Train Movement? yes
Other Movements Nearby? no
Track Type: yard/flat/classification
Hit by Own Equipment? yes
Speed of Equipment (mph): 1
Deceased Regular Job? yes
Crew Size: 3
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes

No. 6 of 12: April 09, 1999 – UP – Richland, WA

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.

Special Switching Hazard(s): Equipment
Possible Contributing Factor: Failure to stop locomotive in clear
Possible Contributing Factor: Locomotive defect
Possible Contributing Factor: Failure to communicate unsafe condition

Day of Week: Friday
Time of Fatal Event: 9:30 PM
Time on Duty (hours: minutes): 3:30
Temperature (Fahrenheit): 45
Direction of Movement: free-running
Crew's Next Move: line switch
Death Result of Train Movement? yes
Other Movements Nearby? yes
Track Type: main/lead/industrial
Hit by Own Equipment? yes
Striking Train Within Rules? no
Speed of Equipment (mph): 8
Deceased Regular Job? yes
Crew Size: 3
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes
No. 7 of 12: April 21, 2000 – BNSF – Galesburg, IL
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.

Special Switching Hazard(s):
Free-Rolling Railcars
Possible Contributing Factor: Employee on or fouling track
External Circumstances:

Day of Week: Friday
Time of Fatal Event: 9:28 AM
Time on Duty (hours: minutes): 1:29
Temperature (Fahrenheit): 43
Direction of Movement: free-running
Crew's Next Move: pull track
Death Result of Train Movement? yes
Other Movements Nearby? yes
Track Type: yard/hump/classification
Hit by Own Equipment? no
Striking Train Within Rules? yes
Speed of Equipment (mph): 7
Deceased Regular Job? yes
Crew Size: 3
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes

No. 8 of 12: April 08, 2001 – BNSF – Clark, OK
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.

Special Switching Hazard(s):
Miscellaneous
Possible Contributing Factor: Switch improperly lined
Possible Contributing Factor: Shoving movement, man on or at leading end of movement,
failure to control

Day of Week: Sunday
Time of Fatal Event: 9:18 PM
Time on Duty (hours: minutes): 1:48
Temperature (Fahrenheit): 70
Direction of Movement: shoved
couple to standing cars
Crew's Next Move: yard/flat/industrial
Death Result of Train Movement? yes
Other Movements Nearby? no
Track Type: no
Hit by Own Equipment? no
Striking Train Within Rules? no
Speed of Equipment (mph): 1
Deceased Regular Job? yes
Crew Size: 3
Drugs Present? no
Drugs a Factor? no
Emergency Response Procedures Followed? yes
**No. 9 of 12: April 11, 2003 – UP – Pocatello, ID**

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.

**SOFA Operating Recommendation(s):**

Possible Contributing Factor: Shoving movement, man on or at leading end of movement, failure to control

Possible Contributing Factor: Emergency brake application to avoid accident

Possible Contributing Factor: Poor intra-crew communication about work in progress

External Circumstances: Buffing or slack action excessive, train make-up

Day of Week: Friday

Time of Fatal Event: 10:43 PM

Time on Duty (hours: minutes): 10:39

Temperature (Fahrenheit): 55

Direction of Movement: shoved

Crew's Next Move: spot train

Death Result of Train Movement?: yes

Other Movements Nearby?: no

Track Type: main

Hit by Own Equipment?: yes

Striking Train Within Rules?: no

Speed of Equipment (mph): 8

Deceased Regular Job?: yes

Crew Size: 2

Drugs Present?: no

Drugs a Factor?: no

**No. 10 of 12: April 5, 2005 – NS – Selma, AL**

*(Information is preliminary, pending investigation)*

A Norfolk Southern (NS) brakeman, part of a road crew, was assisting in and working with the local yard assignment in putting his train away. During a shove move, the brakeman was struck and killed by the leading end of a cut of cars the local yard assignment was moving.

**No. 11 of 12: April 11, 2005 – UP – Ogden, UT**

*(Information is preliminary, pending investigation)*

An Union Pacific (UP) switchman was riding on a car that was located at other than the leading end of a shove move and giving radio commands to the RCL operator who was controlling the locomotive being used to shove the cars into a track. Radio communication ceased, the move stopped and the switchman was found dead adjacent to the track being shoved.

**No. 12 of 12: April 02, 2006 – UP – Palmer, MI**

*(Information is preliminary, pending investigation)*

A conductor, while riding the leading end of a shove move, fell off and was struck and killed by the car he had been riding.