SOFA Switching Fatality and Severe Injury Update – 1st Quarter 2018

Switching Operations Fatality Analysis (SOFA)
- A voluntary, non-regulatory, railroad-safety partnership of representatives from AAR, ASLRRRA, BLET, FRA, and UTU-SMART-TD
- Seeks to prevent switching fatalities through education based on facts about causes
- SOFA is not part of a rulemaking or regulatory process
- Recognizes that all have responsibility for switching safety: employees, managers, and regulators
- SOFA’s goal is Zero Switching Fatalities achieved through education and non-punitive interactions among stakeholders

Find SOFA reports and information at: [http://www.fra.dot.gov/SOFA](http://www.fra.dot.gov/SOFA)

SOFA-defined Severe Injury Update

**Definition:** Based on its interests (i.e., potentially involving the same factors as fatalities), *Severe Injuries* are defined by the SOFA Working Group as (1) potentially life threatening; (2) having a high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) resulting 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. 1997 is the first year these Injuries to train and engine service employees can be determined as defined by the interest of the SOFA Working Group. For more information, see *Severe Injuries to Train and Engine Service Employees: Data Description and Injury Characteristics*. July 2001.

**Note:** The definition of SOFA-defined Severe Injuries is not to suggest that other injuries and illnesses resulting from operations are not also ‘severe’ and/or cause hardship to employees.
Severe Injuries Year-to-Date and Previous Five Years

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SIs</td>
<td>20</td>
<td>68</td>
<td>47</td>
<td>57</td>
<td>76</td>
<td>68</td>
</tr>
<tr>
<td>Amputations*</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>13</td>
<td>8</td>
</tr>
</tbody>
</table>

2018 SOFA Severe Injuries

<table>
<thead>
<tr>
<th>#</th>
<th>Month</th>
<th>Day</th>
<th>State</th>
<th>Age</th>
<th>Injury</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>January</td>
<td>07</td>
<td>PA</td>
<td>42</td>
<td>Fracture</td>
<td>Slipped, fell, stumbled, etc., due to climatic condition while getting on on-track equipment at a yard location.</td>
</tr>
<tr>
<td>2</td>
<td>January</td>
<td>09</td>
<td>LA</td>
<td>53</td>
<td>Fracture</td>
<td>PTI van struck a piece of equipment in the roadway at highway/railway location.</td>
</tr>
<tr>
<td>3</td>
<td>January</td>
<td>09</td>
<td>LA</td>
<td>57</td>
<td>Fracture</td>
<td>PTI van struck a piece of equipment in the roadway at highway/railway location.</td>
</tr>
<tr>
<td>4</td>
<td>January</td>
<td>09</td>
<td>OH</td>
<td>47</td>
<td>Fracture: leg or foot</td>
<td>Slipped, fell, stumbled, etc., due to climatic condition while stepping on side of car with a standing locomotive at a yard location.</td>
</tr>
<tr>
<td>5</td>
<td>January</td>
<td>15</td>
<td>IL</td>
<td>46</td>
<td>Fracture: leg or foot</td>
<td>Employee stepped off train and twisted his ankle at Yard location.</td>
</tr>
<tr>
<td>6</td>
<td>January</td>
<td>18</td>
<td>CA</td>
<td>31</td>
<td>Fracture: leg or foot</td>
<td>Employee reports while descending the stairs in the cab he slipped resulting in a fractured ankle.</td>
</tr>
<tr>
<td>7</td>
<td>January</td>
<td>18</td>
<td>IL</td>
<td>43</td>
<td>Fracture</td>
<td>Lost balance while crossing between cars of a standing freight car standing at a yard location.</td>
</tr>
<tr>
<td>8</td>
<td>January</td>
<td>20</td>
<td>VA</td>
<td>40</td>
<td>Fracture</td>
<td>Slipped, fell, stumbled, etc., due to object while walking on ballast beside track at a yard location.</td>
</tr>
<tr>
<td>9</td>
<td>January</td>
<td>24</td>
<td>IN</td>
<td>45</td>
<td>Fracture</td>
<td>Highway-rail collision/impact while riding on a car of a moving freight train at a main/branch location.</td>
</tr>
<tr>
<td>10</td>
<td>January</td>
<td>26</td>
<td>TX</td>
<td>38</td>
<td>Fracture</td>
<td>Employee fractured rib when the car he was riding on stopped abruptly.</td>
</tr>
<tr>
<td>11</td>
<td>January</td>
<td>29</td>
<td>MN</td>
<td>40</td>
<td>Fracture</td>
<td>Employee injured his back when he fell onto the tracks while riding a car in the yard.</td>
</tr>
<tr>
<td>12</td>
<td>February</td>
<td>09</td>
<td>TX</td>
<td>70</td>
<td>Fracture: leg or foot</td>
<td>Employee was riding a shove and preparing to dismount. While switching his lantern from one hand to the other, he fell.</td>
</tr>
<tr>
<td>13</td>
<td>February</td>
<td>12</td>
<td>NY</td>
<td>27</td>
<td>Fracture</td>
<td>Missed handhold, grab iron, step, etc., of a standing passenger train at a passenger terminal.</td>
</tr>
</tbody>
</table>
### Switching Fatalities SOFA-defined Severe Injuries and Other Reportable Events

<table>
<thead>
<tr>
<th>#</th>
<th>Month</th>
<th>Day</th>
<th>State</th>
<th>Age</th>
<th>Injury</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>February</td>
<td>13</td>
<td>MN</td>
<td>37</td>
<td>Amputation: leg or foot</td>
<td>Slipped, fell, stumbled, other, while riding on the end of a tank car of a moving freight train at a yard location.</td>
</tr>
<tr>
<td>15</td>
<td>February</td>
<td>20</td>
<td>MI</td>
<td>38</td>
<td>Fracture</td>
<td>Crew came upon a washout on the main from heavy rain and snow and derailed causing injuries.</td>
</tr>
<tr>
<td>16</td>
<td>February</td>
<td>25</td>
<td>WI</td>
<td>33</td>
<td>Fracture</td>
<td>Employee was a passenger in a van being transported to the head end of his train when their van was struck by another passenger vehicle at an intersection causing injuries.</td>
</tr>
<tr>
<td>17</td>
<td>February</td>
<td>28</td>
<td>FL</td>
<td>52</td>
<td>Amputation: leg or foot</td>
<td>Involved a freight car moving. Occurred at highway/roadway location. (Still under investigation)</td>
</tr>
<tr>
<td>18</td>
<td>March</td>
<td>06</td>
<td>MN</td>
<td>56</td>
<td>Fracture: leg or foot</td>
<td>Slipped, fell, stumbled, etc. due to climatic conditions while walking beside track at a yard location.</td>
</tr>
<tr>
<td>19</td>
<td>March</td>
<td>16</td>
<td>NC</td>
<td>40</td>
<td>Fracture: leg or foot</td>
<td>Struck against object while getting on a moving locomotive at an industry location.</td>
</tr>
<tr>
<td>20</td>
<td>March</td>
<td>18</td>
<td>KY</td>
<td>51</td>
<td>Fracture</td>
<td>Injured while operating locomotive from a collision with on-track equipment at a main/branch location.</td>
</tr>
</tbody>
</table>

### SOFA Working Group

#### 2008
- **SOFA Switching Fatalities**: 12
- **Employee On-duty Fatalities**: 26
- **T&E Employee On-duty Fatalities**: 4
- **SOFA-defined Severe Injuries**: 87
- **Amputations (Included in SOFA-defined Severe Injuries)**: 8
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 2,217
- **Train Accidents**: 2,481
- **Human Factor Accidents**: 910
- **Percent of Human Factor Train Accidents**: 37%

#### 2009
- **SOFA Switching Fatalities**: 8
- **Employee On-duty Fatalities**: 16
- **T&E Employee On-duty Fatalities**: 2
- **SOFA-defined Severe Injuries**: 53
- **Amputations (Included in SOFA-defined Severe Injuries)**: 6
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,972
- **Train Accidents**: 1,912
- **Human Factor Accidents**: 656
- **Percent of Human Factor Train Accidents**: 34%

#### 2010
- **SOFA Switching Fatalities**: 8
- **Employee On-duty Fatalities**: 20
- **T&E Employee On-duty Fatalities**: 5
- **SOFA-defined Severe Injuries**: 63
- **Amputations (Included in SOFA-defined Severe Injuries)**: 6
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,883
- **Train Accidents**: 1,902
- **Human Factor Accidents**: 650
- **Percent of Human Factor Train Accidents**: 34%

#### 2011
- **SOFA Switching Fatalities**: 4
- **Employee On-duty Fatalities**: 21
- **T&E Employee On-duty Fatalities**: 11
- **SOFA-defined Severe Injuries**: 69
- **Amputations (Included in SOFA-defined Severe Injuries)**: 11
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,735
- **Train Accidents**: 2,032
- **Human Factor Accidents**: 752
- **Percent of Human Factor Train Accidents**: 37%

#### 2012
- **SOFA Switching Fatalities**: 3
- **Employee On-duty Fatalities**: 16
- **T&E Employee On-duty Fatalities**: 4
- **SOFA-defined Severe Injuries**: 47
- **Amputations (Included in SOFA-defined Severe Injuries)**: 6
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,553
- **Train Accidents**: 1,765
- **Human Factor Accidents**: 666
- **Percent of Human Factor Train Accidents**: 38%

#### 2013
- **SOFA Switching Fatalities**: 1
- **Employee On-duty Fatalities**: 14
- **T&E Employee On-duty Fatalities**: 2
- **SOFA-defined Severe Injuries**: 68
- **Amputations (Included in SOFA-defined Severe Injuries)**: 8
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,742
- **Train Accidents**: 1,851
- **Human Factor Accidents**: 712
- **Percent of Human Factor Train Accidents**: 38%

#### 2014
- **SOFA Switching Fatalities**: 2
- **Employee On-duty Fatalities**: 10
- **T&E Employee On-duty Fatalities**: 4
- **SOFA-defined Severe Injuries**: 76
- **Amputations (Included in SOFA-defined Severe Injuries)**: 13
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,912
- **Train Accidents**: 1,887
- **Human Factor Accidents**: 743
- **Percent of Human Factor Train Accidents**: 39%

#### 2015
- **SOFA Switching Fatalities**: 3
- **Employee On-duty Fatalities**: 11
- **T&E Employee On-duty Fatalities**: 4
- **SOFA-defined Severe Injuries**: 57
- **Amputations (Included in SOFA-defined Severe Injuries)**: 5
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,727
- **Train Accidents**: 1,931
- **Human Factor Accidents**: 761
- **Percent of Human Factor Train Accidents**: 39%

#### 2016
- **SOFA Switching Fatalities**: 3
- **Employee On-duty Fatalities**: 16
- **T&E Employee On-duty Fatalities**: 9
- **SOFA-defined Severe Injuries**: 47
- **Amputations (Included in SOFA-defined Severe Injuries)**: 7
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,483
- **Train Accidents**: 1,671
- **Human Factor Accidents**: 643
- **Percent of Human Factor Train Accidents**: 38%

#### 2017
- **SOFA Switching Fatalities**: 3
- **Employee On-duty Fatalities**: 12
- **T&E Employee On-duty Fatalities**: 6
- **SOFA-defined Severe Injuries**: 68
- **Amputations (Included in SOFA-defined Severe Injuries)**: 9
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 1,696
- **Train Accidents**: 1,686
- **Human Factor Accidents**: 639
- **Percent of Human Factor Train Accidents**: 38%

#### 2018
- **SOFA Switching Fatalities**: 0
- **Employee On-duty Fatalities**: 5
- **T&E Employee On-duty Fatalities**: 3
- **SOFA-defined Severe Injuries**: 20
- **Amputations (Included in SOFA-defined Severe Injuries)**: 2
- **T&E Employees Reportable Casualties (includes Fatalities and Severe Injuries)**: 421
- **Train Accidents**: 416
- **Human Factor Accidents**: 154
- **Percent of Human Factor Train Accidents**: 37%