



SOFA Switching Fatality and Severe Injury Update – 2016 Fourth Quarter ***PLEASE POST IMMEDIATELY***

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>

Three switching fatalities in 2016 *(All information is preliminary until investigation is complete)*

- March 26 – CP – St. Paul, MN: An engineer with 20 years' experience was crossing main line tracks, in a yard, to board his train at 12:30 am. He was struck by a passing freight train and was fatally injured.
- October 30 – ABS – Artesia, MS: A conductor with 9 months' experience lined a switch for his own train and gave verbal command to his engineer. When the engineer passed by where the conductor should have been, he noticed the conductor had been struck.
- November 6 – WLE – Brewster, OH: RCO with 4 years' experience was struck by his own train while switching in the yard.



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

There were 47 SIs in 2016, January through December. Seven were amputations.

Full Year: Present and Past Years	2016	2015	2014	2013	2012	2011
SIs	47	57	76	68	47	69
Amputations*	7	5	13	8	6	11

*Counts for amputations included in SIs



2016 Fourth Quarter SOFA Severe Injuries

There were 14 SIs in 4th Quarter 2016. Thirteen were fractures and one amputation.

Brief Description of the 4th Quarter 2016 SIs:

#	Month	Day	State	Age	Injury	Description
1	October	14	WI	45	fracture: various body parts of equal severity	Accompanying narrative: "EMPLOYEE WAS STANDING IN BETWEEN TRACKS WHILE ATTEMPTING TO PUSH A CAR WITH THE LOCOMOTIVE AND A LOG DUE TO A FAILED GRAVITY DROP. DURING THE ATTEMPT, THE LOG CAME OUT AND STRUCK THE EMPLOYEE CAUSING MULTIPLE FRACTURES." Occurred at industry location.
2	October	26	IN	60	fracture: various body parts of equal severity	Accompanying narrative: "SEMI TRAILER HIT GATE AT VIRGINIA STREET CAUSING IT TO BE FOUL OF THE MAIN TRACK. TRAIN STRUCK THE GATE AND THE GATE WENT THROUGH THE ENGINEERS CAB WINDOW INJURING THE ENGINEER." Occurred at main/branch location.
3	October	26	KS	44	fracture: leg or foot	Fell, stumbled, etc. due to climatic condition while stepping down from a standing locomotive at siding location.
4	October	27	GA	32	fracture: leg or foot	Sudden/unexpected movement of material (ballast, stones, etc.) while walking on ground near standing equipment at main/branch location.
5	November	06	GA	43	fracture: arm or hand	Resulted from slack adjustment during switching operation while riding end of car of a moving freight car at industrial location.
6	November	20	TX	33	fracture: leg or foot	Was riding in a taxi involved in a collision on a highway/roadway.
7	November	22	VA	30	fracture: leg or foot	Slipped, fell, stumbled, etc., while stepping down from a standing locomotive in a yard location.
8	November	22	WI	28	fracture: torso	Slipped, fell, stumbled, etc., while walking in/on standing locomotive in a main/branch location. Involved a remote control operation.
9	November	28	MS	24	amputation: arm or hand	Accompanying narrative: "EMPLOYEE WAS ATTEMPTING TO RELEASE A HANDBRAKE ON A RAILCAR WHEN HE APPLIED IT FURTHER FIRST PINCHING HIS LITTLE FINGER IN THE BRAKE." Occurred at industry location.
10	December	12	IN	58	fracture: torso	Slipped, fell, stumbled releasing handbrakes on a standing locomotive at a yard location.
11	December	14	OH	58	fracture: torso	Slipped, fell, stumbled while walking.
12	December	16	MO	56	fracture: head or face	Collision while driving an auto at a highway/roadway location.
13	December	23	PA	57	fracture: torso	Slipped, fell, stumbled due to climatic conditions while walking on ground at a main/branch location.
14	December	31	NV	57	fracture: torso	Accompanying narrative: "EMPLOYEE FELL ON CROSSING PAD AT SPEONK STATION CAUSING HIM TO FRACTURE HIS LEFT SHOULDER." Occurred at a main/branch location.



Switching Fatalities, SOFA-defined Severe Injuries, and Other Reportable Events

Source: Switching fatalities from SOFA Database; all other information used in this table was extracted from FRA's publically available data. *Note:* Among *SOFA Updates*, counts previously presented may change based on revisions to FRA data.

Year	SOFA Switching Fatalities	SOFA-defined Severe Injuries	Amputations (counts are included in SOFA-defined Severe Injuries)	All Employee On-duty Fatalities less SOFA Switching Fatalities	T&E Employee On-duty Fatalities less SOFA Switching Fatalities	All Reportable Employee Casualty to T&E Employees (includes Fatalities and Severe Injuries)	All Accidents	Human Factor Accidents	Highway-Rail Crossing Incidents	Trespasser Incidents (not at crossings)
1992	14	*	*	20	6	6,648	2,359	864	4,910	1,049
1993	15	*	*	32	16	5,649	2,611	865	4,892	1,032
1994	12	*	*	19	9	5,026	2,504	911	4,979	981
1995	11	*	*	23	10	4,215	2,459	944	4,633	955
1996	7	*	*	26	15	3,726	2,443	783	4,257	945
1997	11	139	20	26	10	3,489	2,397	855	3,865	1,049
1998	8	137	27	19	8	3,642	2,575	971	3,508	1,049
1999	9	135	18	22	12	3,835	2,768	1,031	3,489	924
2000	13	139	19	11	2	3,893	2,983	1,147	3,502	877
2001	8	140	19	14	6	3,561	3,023	1,035	3,237	915
2002	6	123	11	14	3	3,022	2,738	1,050	3,077	935
2003	10	114	15	9	3	2,935	3,019	1,230	2,977	896
2004	11	123	15	14	9	2,910	3,385	1,353	3,085	878
2005	11	122	15	14	7	2,817	3,266	1,270	3,066	878
2006	7	100	12	9	0	2,483	2,998	1,068	2,942	992
2007	6	110	16	11	4	2,520	2,693	1,047	2,778	877
2008	12	87	8	14	4	2,217	2,481	910	2,429	889
2009	8	53	6	8	2	1,972	1,912	656	1,933	760
2010	8	63	6	12	5	1,883	1,902	650	2,052	831
2011	4	69	11	17	11	1,735	2,032	752	2,063	766
2012	3	47	6	13	4	1,553	1,765	666	1,989	820
2013	1	68	8	13	2	1,742	1,851	712	2,101	859
2014	2	76	13	8	2	1,912	1,875	740	2,295	892
2015	3	57	5	8	1	1,727	1,925	760	2,077	869
2016	3	47	7	11	6	1,483	1,622	627	2,034	983