Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2008-31

CSX Transportation (CSX)
Taft, FL
March 17, 2008

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FRA FACTUAL RAILROAD ACCIDENT REPORT

FRA File # HQ-2008-31

1.Name of Railroad Operating Train #1: CSX Transportation [CSX]	1a. Alphabetic Code: CSX	1b. Railroad Accident/Incident No.: 000044491
2.Name of Railroad Operating Train #2: N/A	2a. Alphabetic Code: N/A	2b. Railroad Accident/Incident No.: N/A
3.Name of Railroad Operating Train #3: N/A	3a. Alphabetic Code: N/A	3b. Railroad Accident/Incident No.: N/A
4.Name of Railroad Responsible for Track Maintenance: CSX Transportation [CSX]	4a. Alphabetic Code: CSX	4b. Railroad Accident/Incident No.: 000044491

5. U.S. DOT_AAR Grade Crossing Identification Number: 622336P	6. Date of Accident/Incident: Month 03 Day 17 Year 2008	7. Time of Accident/Incident: 10:52: ☐ AM ☑ PM	

8. Type of Accident/Indicent *(single entry in code box)*: 1. Derailment; 2. Head on collision; 3. Rear end collision; 4. Side collision; 5. Raking collision; 6. Broken Train collision; 7. Hwy-rail crossing; 8. RR grade crossing; 9. Obstruction; 10. Explosion-detonation; 11. Fire/violent rupture; 12. Other impacts; 13. Other *(describe in narrative)* — Code: 07

9. Cars Carrying HAZMAT	10. HAZMAT Cars Damaged/Derailed	11. Cars Releasing HAZMAT	12. People Evacuated	13. Division
0	0	0	0	Jacksonville

14. Nearest City/Town	15. Milepost *(to nearest tenth)*	16. State Abbr / Code	17. County
Taft	A797.7	N/A / FL	JACKSON

18. Temperature (F) *(specify if minus)*	19. Visibility *(single entry)* 1. Dawn 2. Day 3.Dusk 4.Dark — Code	20. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5.Sleet 6.Snow — Code	21. Type of Track 1. Main 2. Yard 3. Siding 4. Industry — Code
70 F	4	1	1

22. Track Name/Number	23. FRA Track Class (1-9, X) — Code	24. Annual Track Density *(gross tons in millions)*	25. Time Table Direction 1. North 2. South 3. East 4. West — Code
single main	4	7.5	2

OPERATING TRAIN #1

26. Type of Equipment Consist *(single entry)* 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/switching 8. Light loco(s). 9. Maint./inspect.car — A. Spec. MoW Equip. Code	27. Was Equipment Attended? 1. Yes 2. No — Code	28. Train Number/Symbol
4	1	A03217

29. Speed *(recorded speed, if available)* R - Recorded E - Estimated — Code	31. Method(s) of Operation *(enter code(s) that apply)*	31a. Remotely Controlled Locomotive?
7 MPH — E	a. ATCS; b. Auto train control; c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; g. Automatic block; h. Current of traffic; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; m.Special instructions; n. Other than main track; o. Positive train control; p. Other *(Specify in narrative)*	0 = Not a remotely controlled; 1 = Remote control portable; 2 = Remote control tower; 3 = Remote control transmitter - more than one remote control transmitter

30. Trailing Tons *(gross tonnage, excluding power units)*: 1650

Code(s): e | N/A | N/A | N/A | N/A

31a. Remotely Controlled Locomotive?: 0

32. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	CSXT999041	1	yes
(2) Causing *(if mechanical cause reported)*	0	0	N/A

33. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
0	0

34. Was this consist transporting passengers? (Y/N): N/A

35. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	1	0	0	0	0
(2) Total Derailed	0	0	0	0	0

36. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	16	0	0	0	0
(2) Total Derailed	1	0	0	0	0

37. Equipment Damage This Consist	38. Track, Signal, Way, & Structure Damage	39. Primary Cause Code	40. Contributing Cause Code
$3,500.00	$340,000.00	M303	N/A

Number of Crew Members

41. Engineer/ Operators	42. Firemen	43. Conductors	44. Brakemen
1	0	1	0

Length of Time on Duty

45. Engineer/Operator	46. Conductor
Hrs 9 Mi 52	Hrs 9 Mi 52

Casualties to:	47. Railroad Employees	48. Train Passengers	49. Other
Fatal	0	0	0
Nonfatal	1	0	1

50. EOT Device? 1. Yes 2. No	51. Was EOT Device Properly Armed? 1. Yes 2. No
2	2

52. Caboose Occupied by Crew? 1. Yes 2. No: 2

OPERATING TRAIN #2

53. Type of Equipment Consist *(single entry)* 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/switching 8. Light loco(s). 9. Maint./inspect.car — A. Spec. MoW Equip. Code	54. Was Equipment Attended? 1. Yes 2. No — Code	55. Train Number/Symbol
N/A	N/A	N/A

56. Speed *(recorded speed, if available)* R - Recorded E - Estimated — Code	58. Method(s) of Operation *(enter code(s) that apply)*	58a. Remotely Controlled Locomotive?
0 MPH — N/A	a. ATCS; b. Auto train control; g. Automatic block; h. Current of traffic; m.Special instructions; n. Other than main track	0 = Not a remotely controlled; 1 = Remote control portable

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57. Trailing Tons *(gross tonnage, excluding power units)* N/A

c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; o. Positive train control; p. Other *(Specify in narrative)* Code(s): N/A N/A N/A N/A N/A

2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter: N/A

59. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	0	0	N/A
(2) Causing *(if mechanical cause reported)*	0	0	N/A

60. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

61. Was this consist transporting passengers? (Y/N) N/A

62. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

63. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

64. Equipment Damage This Consist: $0.00

65. Track, Signal, Way, & Structure Damage: $0.00

66. Primary Cause Code: N/A

67. Contributing Cause Code: N/A

Number of Crew Members

68. Engineer/ Operators	69. Firemen	70. Conductors	71. Brakemen
0	0	0	0

Length of Time on Duty

72. Engineer/Operator: Hrs 0 Mi 0

73. Conductor: Hrs 0 Mi 0

Casualties to:	74. Railroad Employees	75. Train Passengers	76. Other
Fatal	0	0	0
Nonfatal	0	0	0

77. EOT Device? 1. Yes 2. No N/A

78. Was EOT Device Properly Armed? 1. Yes 2. No N/A

79. Caboose Occupied by Crew? 1. Yes 2. No N/A

OPERATING TRAIN #3

80. Type of Equipment Consist *(single entry)*: 1. Freight train; 2. Passenger train; 3. Commuter train; 4. Work train; 5. Single car; 6. Cut of cars; 7. Yard/switching; 8. Light loco(s); 9. Maint./inspect.car; A. Spec. MoW Equip. Code: N/A

81. Was Equipment Attended? 1. Yes 2. No Code: N/A

82. Train Number/Symbol: N/A

83. Speed *(recorded speed, if available)* Code
R - Recorded
E - Estimated N/A MPH 0

84. Trailing Tons *(gross tonnage, excluding power units)* N/A

85. Method(s) of Operation *(enter code(s) that apply)*
a. ATCS; b. Auto train control; c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; g. Automatic block; h. Current of traffic; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; m.Special instructions; n. Other than main track; o. Positive train control; p. Other *(Specify in narrative)* Code(s): N/A N/A N/A N/A N/A

85a. Remotely Controlled Locomotive?
0 = Not a remotely controlled
1 = Remote control portable
2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter: N/A

86. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	0	0	N/A
(2) Causing *(if mechanical cause reported)*	0	0	N/A

87. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

88. Was this consist transporting passengers? (Y/N) N/A

89. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

90. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

91. Equipment Damage This Consist: $0.00

92. Track, Signal, Way, & Structure Damage: $0.00

93. Primary Cause Code: N/A

94. Contributing Cause Code: N/A

Number of Crew Members

95. Engineer/ Operators	96. Firemen	97. Conductors	98. Brakemen
0	0	0	0

Length of Time on Duty

99. Engineer/Operator: Hrs 0 Mi 0

100. Conductor: Hrs 0 Mi 0

Casualties to:	101. Railroad Employees	102. Train	103. Other
Fatal	0	0	0
Nonfatal	0	0	0

104. EOT 1. Yes 2. No N/A

105. Was EOT Device Properly 1. Yes 2. No N/A

106. Caboose Occupied by Crew? 1. Yes 2. No N/A

Highway User Involved

107. A. Auto; B. Truck; C. Truck-Trailer.; D. Pick-Up Truck; E. Van; F. Bus; G. School Bus; H. Motorcycle; J. Other Motor Vehicle; K. Pedestrian; M. Other *(spec. in narrative)* Code: C

108. Vehicle Speed *(est. MPH at impact)*: 3

109. *geographical)* 1.North 2.South 3.East 4.West Code: 3

Rail Equipment Involved

111. Equipment 1.Train *(units pulling)*; 2.Train *(units pushing)*; 3.Train *(standing)*; 4.Car(s) *(moving)*; 5.Car(s) *(standing)*; 6.Light Loco(s) *(moving)*; 7.Light(s) *(standing)*; 8.Other *(specify in narrative)* Code: 2

112. Position of Car Unit in: 1

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110. Position	Code	113. Circumstance	Code
1.Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing 4. Trapped	3	1. Rail Equipment Struck Highway User 2. Rail Equipment Struck by Highway User	1
114a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither	4	114b. Was there a hazardous materials release 1. Highway User 2. Rail Equipment 3. Both 4. Neither	4

114c. State here the name and quantity of the hazardous materials released, if any.
N/A

115. Type Crossing Warning	1.Gates 2.Cantilever FLS 3.Standard FLS	4.Wig Wags 5.Hwy. traffic signals 6.Audible	7.Crossbucks 8.Stop signs 9.Watchman	10.Flagged by crew 11.Other *(spec. in narr.)* 12.None			
Code(s)	01	02	03	06	07	N/A	N/A

116. Signaled Crossing *(See instructions for codes)*	Code	117. Whistle 1. Yes 2. No 3. Unknown	Code
	01		2

118. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach	Code	119. Crossing Warning with Highway Signals 1. Yes 2. No 3. Unknown	Code	120. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown	Code
	1		1		2

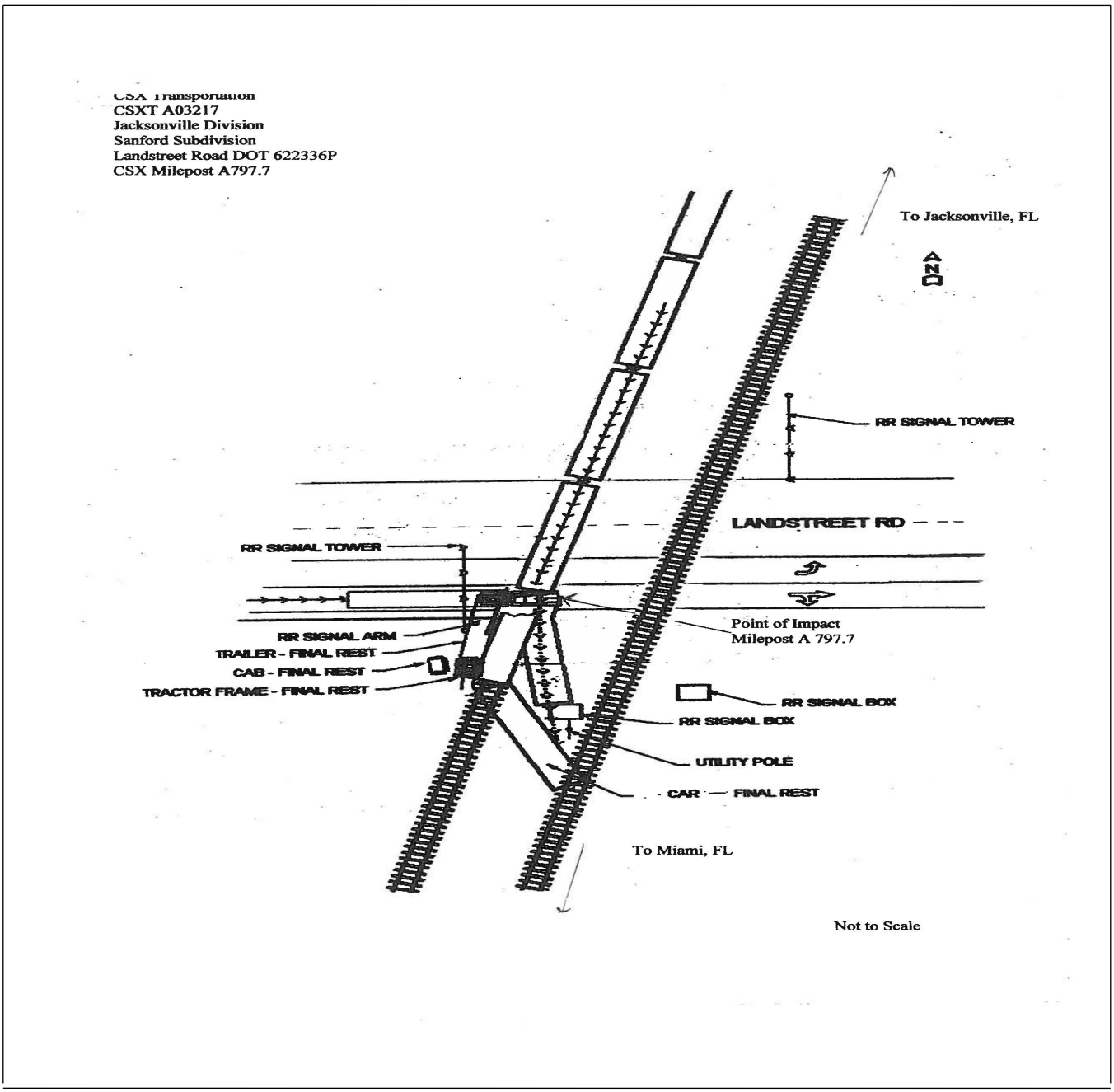
121. Age	122. Driver's Gender 1. Male 2. Female	Code	123. Driver Drove Behind or in Front of and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	Code	124. Driver 1. Drove around or thru the Gate 2. Stopped and then Proceeded 3. Did not Stop 4. Stopped on Crossing 5. Other *(specify in narrative)*	Code
48		1		2		2

125. Driver Passed Highway Vehicle 1. Yes 2. No 3. Unknown	Code	126. View of Track Obscured by *(primary obstruction)* 1. Permanent Structure 2. Standing Railroad Equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicle 7. Other *(specify in narrative)* 8. Not obstructed	Code
	3		8

Casualties to:	Killed	Injured	127. Driver 1. Killed 2.Injured 3. Uninjured	Code	128. Was Driver in the Vehicle? 1. Yes 2. No	Code
				2		1
129. Highway-Rail Crossing Users	0	1	130. Highway Vehicle Property Damage *(est. dollar damage)*	75000	131. Total Number of Highway-Rail Crossing Users *(include driver)*	1

132. Locomotive Auxiliary Lights? 1. Yes 2. No	Code	133. Locomotive Auxiliary Lights Operational? 1. Yes 2. No	Code
	1		1
134. Locomotive Headlight Illuminated? 1. Yes 2. No	Code	135. Locomotive Audible Warning Sounded? 1. Yes 2. No	Code
	1		1

136. DRAW A SKETCH OF ACCIDENT AREA INCLUDING ALL TRACKS, SIGNALS, SWITCHES, STRUCTURES, OBJECTS, ETC., INVOLVED.



137. SYNOPSIS OF THE ACCIDENT

On March 17, 2008, at 10:52 p.m. EST, a northbound CSX Train A032-17 shoving southward struck an eastbound semi-tractor trailer at Landstreet Road highway-rail grade crossing. The accident occurred at CSX Transportation (CSX) milepost (MP) 797.7 on the CSX Jacksonville Division, Sanford Subdivision in Taft, Florida (FL). The method of operation in the accident area is by a Traffic Control System (TCS).

The conductor and truck driver were treated at a local hospital for non-life threatening injuries and released. The truck and trailer were completely destroyed. The leading car of the train derailed. Total damages reported are $3,500 for rail equipment and $340,000 for signal and track structure.

At the time of the accident, it was dark, the weather was clear, dry, and the temperature was 70 °F.

The accident was caused due to the highway user misjudgment under normal weather and traffic conditions.

138. NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

On March 17, 2008, at 1:00 p.m. EST the train crew of work CSX Train A032-17 consisting of a locomotive engineer and a conductor reported for duty at Sanford Yard located in Sanford, FL. This was the home terminal for the crew members and they both received more than the required statutory off-duty rest period prior to reporting for duty.

The train crew was transported south to Taft Yard located in Taft, FL, via a contract van where they received train dispatcher bulletins. After reviewing the bulletins and performing a job briefing the train crew was transported via the contract van to the train. The train was located on the General Electric (GE) lead track at CSX MP A797.9 just south of Taft yard. The GE lead track is connected to the north end of the side track at CSX MP A797.7.

The train consisted of one locomotive and 24 rail cars loaded with maintenance of way (MOW) equipment. The train was assigned to a CSX System Track Gang working in the area. After the engineer started the locomotive and the crew performed an initial air brake test, the conductor aligned the switch leading from the GE lead track for movement onto the side track. The train dispatcher aligned the side track switch for movement onto the Main Track and the engineer operated the train northward onto the Main Track clearing the southbound wayside signal at CSX MP A797.6.

The conductor was located on the ground at the signal and instructed the engineer via a hand-held radio to stop the train. After the train stopped, the train dispatcher realigned the switch back for Main Track movement. The conductor then directed a shoving movement of the train via radio to CSX MP A798.6. Eight cars were detached from the rear of the train for the purpose of off loading the MOW equipment that was on the cars. After detaching the eight cars, the engineer operated the train northward. The conductor rode the side of the rear car and stopped the movement about 150 feet north of the wayside signal located at CSX MP A797.6, about 175 feet north of the highway crossing involved in the accident.

After receiving a restricted signal, the conductor communicated to the engineer to shove three car lengths to the crossing. The southbound train approached the accident area about five miles per hour (mph). The engineer was seated at the controls on the eastside of the locomotive. The conductor was riding on the west side of the lead car.

Approaching the accident area, the track is practically level and tangent for a considerable distance both before and after the highway crossing. Traveling east to west, the highway is tangent and the grade is practically level approaching the rail crossing.

The railroad timetable direction of the train was south. The geographic direction is south. Timetable directions are used throughout this report.

THE ACCIDENT

The train was traveling southward in a shoving movement about 5 mph as it approached the accident area. The conductor's view of the road crossing was unobstructed. The engineer said he was sounding the locomotive horn, ringing the bell, and the ditch lights and head lights were functioning as the train with 16 cars was being shoved. According to the conductor's description of the accident on the CSX Employee's Incident Report Form PI-1A, he informed the engineer that the gates were down and working and he was clear to shove the train 30 cars lengths as they approached the Landstreet Road crossing.

The conductor stated he noticed a tractor trailer slowing down as it approached the crossing from the west side of the tracks. The conductor tried to get the driver's attention by using his hand held light and yelling, but the driver was leaning over toward the passenger floorboard and not paying attention. The truck continued across the tracks and the lead car of the train struck the driver's side of the truck. The collision caused the lead car of the train to derail and veer off the tracks to the east. The cab separated from the frame of the truck and the frame of the truck lodged under the lead car. The cab of the truck remained upright and landed alongside the west side of the track. The collision ruptured the left side fuel tank of the truck spilling about 80 gallons of diesel fuel. Sparks from the collision ignited the diesel fuel starting a fire.

The conductor was temporarily pinned against the side of the car and then climbed into the low side gondola car after the collision. The conductor let the shove continue for about 300 feet south of the crossing to escape from the fire and then told the engineer to stop the train. As the derailed lead car was being shoved, it struck a control point signal bungalow completely destroying the metal building that was located east of the Main Track and 100 feet south of the crossing.

After the train stopped, the conductor climbed out of the rail car and walked a short distance from the wreckage with the assistance of a CSX Roadmaster that was in the area. After assisting the conductor, the roadmaster assisted the truck driver getting out of the cab of the truck. The engineer made an emergency radio transmission to the train dispatcher and informed him there had been an accident at the crossing and they needed assistance.
Shortly after the accident law enforcement and medical personnel were on the scene. The agencies that responded to the accident were the Orange County Sheriff Department, Florida Highway Patrol, and the Taft City Fire and Rescue Squad. The firemen quickly extinguished the fire and paramedics began treating the injured conductor and truck driver. The conductor sustained injury to his toes on his right foot and the truck driver sustained injury to his rib cage. Both were transported to a local hospital where they were treated and released.

ANALYSIS AND CONCLUSIONS

ANALYSIS:

At impact the train was operating at 7 mph which was verified by the event recorder on the locomotive. The maximum authorized speed for freight trains at this location is 60 mph as designated in the current CSXT Jacksonville Division Timetable No. 5.

The locomotive involved in the accident, Locomotive CSXT 2483, was equipped with a headlight, auxiliary light, and audible warning devices required by the Federal Railroad Administration (FRA) Regulations. The locomotive was also equipped with a speed indicator and an event recorder as required. The relevant event

recorder data was downloaded by CSX personnel and analyzed. The analysis of the data disclosed the locomotive engineer was in compliance with all applicable railroad operating and train handling requirements. FRA reviewed the results of the analysis and concurred with the conclusion.

The vehicle involved in the accident was a 1995 GMC tractor cab and trailer. The truck was occupied by a 48 -year old male driver and no passengers. A report filed by the Florida Highway Patrol estimated the driver was operating the truck at 5 mph when the collision occurred.

No toxicological tests were performed on the train crew or the driver of the truck.

After the accident, the locomotive engineer was relieved from his duties and another train crew was called for duty to continue operating the work train.

Landstreet Road is an asphalt surface and in good condition. There are five lanes of traffic. There are two westbound lanes of vehicular traffic and three eastbound lanes of vehicular traffic with one being a center left turn lane. The grade crossing warning system control equipment at Landstreet Road consists of gate arms, cantilevered flashing lights, bells, and crossbucks.

The grade crossing warning devices are controlled by three Safetran 3000 uni-directional units for the main track and siding. There is also an auxiliary track through the crossing equipped with a bi-directional Safetran 3000 with internal island. The warning system is inter-connected with the traffic light at Orange Avenue, which is approximately 150 feet east of the crossing. The On Station section at the North East Siding operates as the island in this configuration for the main track and siding. The crossing is equipped with an external “Hawk” recorder. The Safetran 3000 units are not equipped with recorder modules and for this reason limited data can be obtained from the Safetran units.

The present crossing configuration was placed in service on February 17, 2008, to accommodate road construction consisting of adding a left turn lane from Landstreet Road onto Orange Avenue. Test records were inspected by FRA with no exceptions taken. On March 13, 2008, a monthly inspection was performed with no exceptions noted by CSX.

FRA investigated the accident the morning following the accident. Complete operational tests of the crossing warning equipment could not be performed due to disarrangement and electrical damage to the crossing equipment bungalow due to shorting and arcing of conductors during the accident. The data from the “Hawk” recorder could not be readily downloaded and a manufacturer’s representative was called to the accident scene. The manufacturer’s representative arrived and was able to retrieve the data from the “Hawk” recorder. After the data was reviewed, inspection of the grade crossing warning devices by the FRA did not reveal any contributing factors to the accident.

The conductor was unavailable for interviewing due to his injuries and has not returned to duty.

ANALYSIS:

FRA obtained fatigue related information, for the 10-day period preceding this incident including the 10-day work history (on duty/off duty cycles) for all of the employees involved.

CONCLUSION:

Upon analysis of that information FRA concluded fatigue was not probable for any of the employees.

CONCLUSION:

The railroad was in full compliance with their own rules as well as all applicable Federal Regulations. The conductor was unavailable to provide any information to determine why the truck driver failed to stop at the crossing.

PROBABLE CAUSE:

The accident was caused due to highway user misjudgment under normal weather and traffic conditions.