Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2008-53

CSX Transportation (CSX)
Deerfield Beach, FL
June 6, 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-2008-53

1.Name of Railroad Operating Train #1: South Florida Regional Transit Authority [SFRV]	1a. Alphabetic Code: SFRV	1b. Railroad Accident/Incident No.: 060608
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.: 060608
5. U.S. DOT_AAR Grade Crossing Identification Number:	6. Date of Accident/Incident: Month 06 | Day 06 | Year 2008	7. Time of Accident/Incident: 07:00: ☐ AM ☑ PM

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

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

14. Nearest City/Town	15. Milepost (to nearest tenth)	16. State Abbr	Code	17. County
Deerfield Beach	1000.2	N/A	FL	BROWARD

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
90 F		2		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
no. 1 main		4	16		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
		3	1. Yes	1	P64306

29. Speed (recorded speed, if available) R - Recorded E - Estimated			Code
	77	MPH	R

30. Trailing Tons (gross tonnage, excluding power units): N/A

31. Method(s) of Operation (enter code(s) that apply)

a. ATCS	g. Automatic block	m.Special instructions
b. Auto train control	h. Current of traffic	n. Other than main track
c. Auto train stop	i. Time table/train orders	o. Positive train control
d. Cab	j.Track warrant control	p. Other (Specify in narrative)
e. Traffic	k. Direct traffic control	
f. Interlocking	l.Yard limits	

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

31a. 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
Code: 0

32. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded (yes/no)
(1) First involved (derailed, struck, etc)	809	1	N/A
(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
N/A	N/A

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

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	0	3	0	0	0
(2) Total Derailed	0	0	0	0	0

37. Equipment Damage This Consist	38. Track, Signal, Way, & Structure Damage	39. Primary Cause Code	40. Contributing Cause Code
$1,105.00	$735.00	M302	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 4 Mi 45	Hrs 4 Mi 45

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

50. EOT Device? 1. Yes 2. No: 1

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

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	N/A

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

58. Method(s) of Operation (enter code(s) that apply)

a. ATCS	g. Automatic block	m.Special instructions
b. Auto train control	h. Current of traffic	n. Other than main track

58a. Remotely Controlled Locomotive?
0 = Not a remotely controlled
1 = Remote control portable

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)*	N/A	N/A	N/A
(2) Causing *(if mechanical cause reported)*	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

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

64. Equipment Damage This Consist N/A

65. Track, Signal, Way, & Structure Damage N/A

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
N/A	N/A	N/A	N/A

Length of Time on Duty

72. Engineer/Operator Hrs N/A Mi N/A

73. Conductor Hrs N/A Mi N/A

Casualties to:	74. Railroad Employees	75. Train Passengers	76. Other
Fatal	N/A	N/A	N/A
Nonfatal	N/A	N/A	N/A

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 N/A

82. Train Number/Symbol N/A

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

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)*	N/A	N/A	N/A
(2) Causing *(if mechanical cause reported)*	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

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

91. Equipment Damage This Consist N/A

92. Track, Signal, Way, & Structure Damage N/A

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
N/A	N/A	N/A	N/A

Length of Time on Duty

99. Engineer/Operator Hrs N/A Mi N/A

100. Conductor Hrs N/A Mi N/A

Casualties to:	101. Railroad Employees	102. Train	103. Other
Fatal	N/A	N/A	N/A
Nonfatal	N/A	N/A	N/A

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. Code M
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)*

108. Vehicle Speed *(est. MPH at impact)* 40

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

Rail Equipment Involved

111. Equipment Code 1
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)*

112. Position of Car Unit in 1

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FRA FACTUAL RAILROAD ACCIDENT REPORT

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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	116. Signaled Crossing *(See instructions for codes)* Code	117. Whistle 1. Yes 2. No 3. Unknown Code
Code(s)	01	02	03	06	01	1
	07	N/A	N/A			

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		2		2

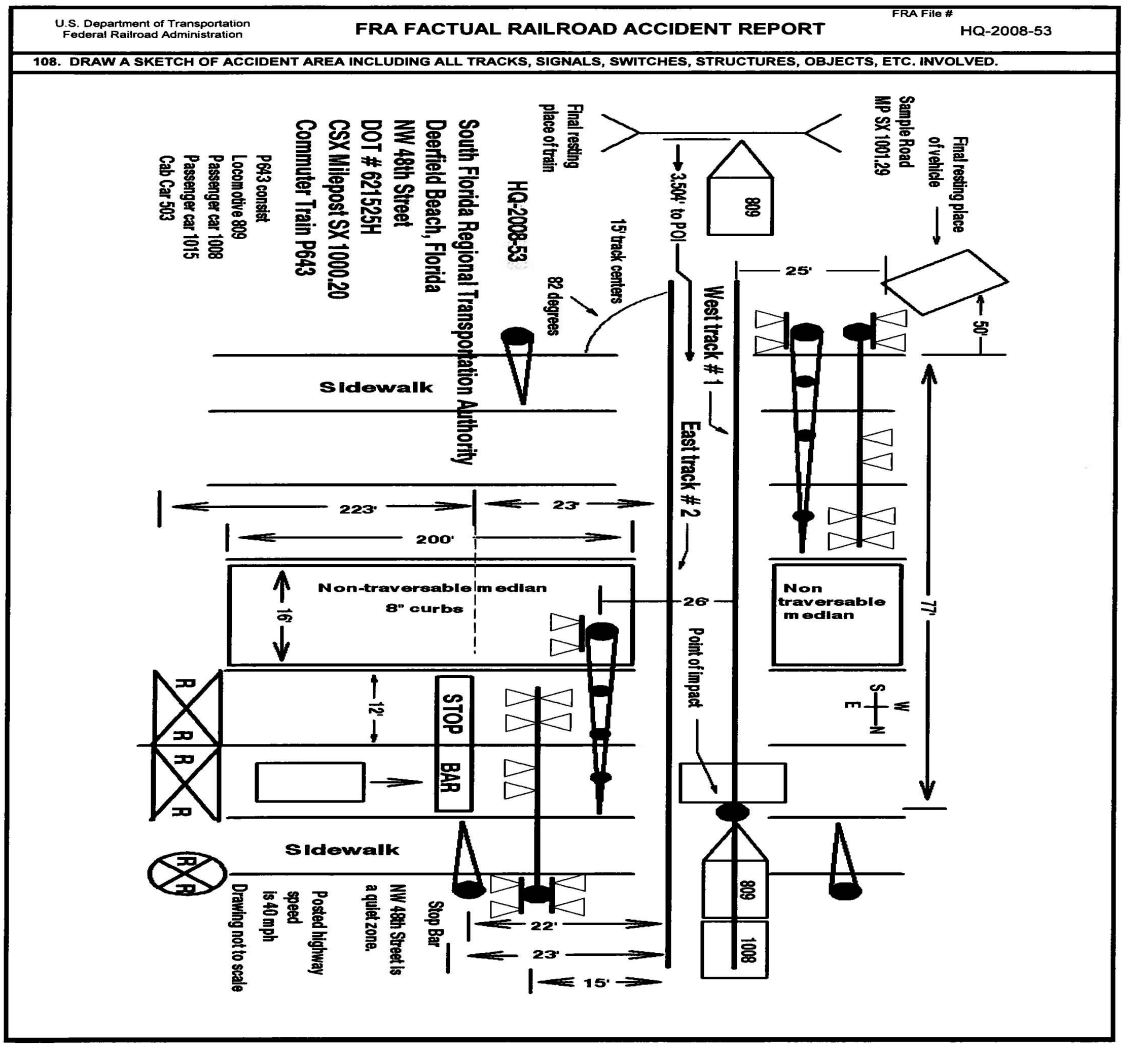
121. Age	122. Driver's Gender 1. Male 2. Female	Code	123. Driver Drove Behind or in Front of and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	Code	124. Driver 1. Drove around or thru the Gate 2. Stopped and then Proceeded 3. Did not Stop 4. Stopped on Crossing 5. Other *(specify in narrative)*	Code
42		1		2		1

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
	1		1

Casualties to:	Killed	Injured	127. Driver 1. Killed 2.Injured 3. Uninjured	Code	128. Was Driver in the Vehicle? 1. Yes 2. No	Code
				1		1
129. Highway-Rail Crossing Users	3	0	130. Highway Vehicle Property Damage *(est. dollar damage)*	21000	131. Total Number of Highway-Rail Crossing Users *(include driver)*	3

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		2

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



137. SYNOPSIS OF THE ACCIDENT

On June 6, 2008, at 7:00 p.m., EDT, a southbound South Florida Regional Transit Authority (SFRV) Commuter Train P643-06 struck a westbound highway vehicle at N.W. 48th Street highway-rail grade crossing. The accident occurred in Deerfield Beach, Florida (FL) at CSX Transportation (CSX) milepost (MP) SX 1000.20 on the CSX Jacksonville Division, Miami Subdivision. The method of operation in the accident area is by a Traffic Control System (TCS).

The driver and two passengers were fatally injured. The highway vehicle was completely destroyed. There were no personal injuries to the train passengers or train crew. SFRV reported an estimated damage to their lead locomotive of $1,105.00 and CSX reported damage to signal equipment and track structure as $734.78. There was no derailment as a result of this highway grade crossing accident.

At the time of the accident, it was daylight and clear. The temperature was 90 °F.

The cause of the accident is highway user inattentiveness.

The State of Florida Department of Transportation (FDOT) owns the track, structures, and equipment from MP SX1037.3 to MP SX964.1 on the Miami Subdivision. SFVR and Tri-County Commuter Rail Authority, by agreement with FDOT, controls and operates the corridor. Veolia Transportation Services is contracted to provide train crews. Bombardier is contracted to provide maintenance personnel. Wackenhut provides security personnel. CSX by agreement provides train dispatching, track, and signal maintenance.

138. NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

South Florida Regional Transit Authority (SFRV) Commuter Train P64306 originated on June 6, 2008, in West Palm Beach, FL, as Train Symbol P603-06, and a Class 1 train air brake test was performed at 2:57 a.m. EDT. The commuter train symbols change when the train rotates and reverses direction. Northbound trains are even numbers and southbound trains are odd numbers. On June 6, 2008, the commuter train P632--06 departed Hialeah Yard, Hialeah, FL. The commuter train operated northbound to Mangonia Park Station and rotated southbound and became Train P643-06. The train consisted of one locomotive, two passenger cars, and a passenger/cab car with 263 passengers on board. The crew, consisting of a locomotive engineer and a conductor went on duty at Hialeah Yard at 2:15 p.m. at Hialeah Yard. The crew received the required statutory off duty rest period. The engineer received 14 hours and 25 minutes rest and the conductor received 17 hours and 45 minutes rest. They deadheaded to Miami Airport Station and departed Miami Airport Station operating the train at 3:25 p.m.

SFRV Commuter Train P643-06 was operating at 77 miles per hour (mph) as it approached N.W. 48th Street highway-rail grade crossing on the No. One Main Track in a southward direction. The engineer was seated at the controls of the lead locomotive. The conductor was in the cab car.

Approaching the point of the accident from the north there is a 30 degree curve from the point of the accident northward for about 700 feet. From MP SX 999.1 the track begins a .10 descending grade for about 1,800 feet and then level to the point of accident and beyond.

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

THE ACCIDENT
SFRV COMMUTER TRAIN P643-06:

The locomotive engineer is the only witness to this accident. The engineer said he left Deerfield Station southbound on the Number One Track, the westbound track. SFRV Train P643-06 was operating at 77 mph as recorded by the event recorder on the lead locomotive (No. 809). The maximum authorized speed for this line segment is 79 mph, as designated in the current CSX Jacksonville Division Timetable No. 5. He said approaching the N.W. 48th Street grade crossing the warning devices were activated as usual and the grade crossing was clear of highway traffic. When the train occupied the grade crossing, reportedly the engineer noticed pieces of a gate arm flying through the air and at the same moment he heard an impact and realized the train had struck something.

HIGHWAY VEHICLE:

The highway vehicle was traveling east to west on N.W. 48th Street in the right traffic lane. The Florida Traffic Crash Report estimated the highway vehicle speed at 40 mph when the collision occurred. The posted highway speed is 40 mph.

The SFRV Train struck the highway vehicle on the passenger's side, at about mid-point. The impact forced the highway vehicle south approximately 127 feet and west 25 feet. The highway vehicle broke the mid section on the east gate arm and the impact forced the highway vehicle through the west gate arm. The highway vehicle came to a rest in the south west quadrant of the grade crossing. After impact, the locomotive engineer made an emergency application of the train air brakes and SFRV Commuter Train P643-06 stopped 3,504 feet south of the impact point.

After the train stopped, the engineer notified the CSX Train Dispatcher that he struck something at N.W. 48th Street. He then notified the SFRV Operations Center and the train conductor. The locomotive engineer then disembarked and inspected the locomotive for damage and then re-boarded the locomotive. After the accident, the locomotive engineer operated the train to the next station stop (Pompano) and at that point he was released from his duties. The conductor was in the cab car updating his log at the time of the collision. After the train came to a stop, the conductor walked back to the accident site and observed emergency medical personnel at the scene. He also observed a vehicle in the southwest quadrant of the grade crossing that was struck by the train. After the supervisor arrived at the scene, he returned to the train and assumed his duties as a conductor.

Broward County Sheriff's Office was notified of the accident at 7:02 p.m. and personnel arrived at the scene at 7:06 p.m. Emergency Medical Services (EMS) was notified at 7:02 p.m. and staff arrived at the scene at 7:06 p.m. also. All three occupants of the highway vehicle were pronounced deceased at the scene of the accident.

ANALYSIS AND CONCLUSIONS

ANALYSIS: - HIGHWAY VEHICLE:

The highway vehicle involved was a 2006 Saturn Vue/SUV. The highway vehicle was occupied by a male driver and two male passengers. The driver's age was 42 and the passengers ranged in age as follows: male age 8 months and 17 days, male age 2 years and 5 months. Broward County Medical Examiner's Office performed toxicological tests on the remains of the highway vehicle driver. There were no toxicological tests performed on the train crew. FRA does not require such testing for this type of accident.

CONCLUSION:
Toxicological tests performed on the driver were negative and did not contribute to the accident.

ANALYSIS: - HIGHWAY-RAIL GRADE CROSSING:

N. W. 48th Street is an asphalt surface with a rubber railroad surface at the grade crossing. Westbound highway traffic consists of two traffic lanes. The traffic lanes are 12 feet wide and there is a non-traversable median that is 16 feet in width and 200 feet in length. There are active warning devices located on both sides of the grade crossing. Westbound, the grade crossing is equipped with a gate arm, cantilevered flashing lights, flashing lights, a bell, and sidewalk gate arms. The cantilever is equipped with a pair of flashing lights facing highway traffic for each lane of traffic and a pair of back lights. The cantilever mast is equipped with a pair of flashing lights facing highway traffic and a pair of back lights. There is a signal mast located in the

center median equipped with a gate arm that extends across both lanes of traffic, and a pair of flashing lights facing highway traffic. The warning devices are controlled by a Safetran Grade Crossing Predicator (GCP 3000). There is a stop bar placed 23 feet from the nearest rail, passive pavement markings, and a passive railroad sign placed 246 feet from the nearest rail.

CONCLUSION:

Nothing at the crossing location contributed to the accident.

ANALYSIS: - SIGNAL AND TRAIN CONTROL
After the accident, the active warning devices were tested by CSX signal personnel. They completed testing about 1:00 a.m. on June 7, 2008, and concluded that the warning devices functioned as intended. The tests were performed again at 2:00 p.m. on June 7, 2008, in the presence of a Federal Railroad Administration (FRA) signal and train control inspector and the warning devices functioned as intended.

There are two tracks that intersect N.W. 48th Street and from east to west they are designated as Number Two Main Track and Number One Main Track. SFRV Train P643-06 was being operated on Number One Main Track. The railroad intersects N.W. 48th Street at an 82 degree angle. N.W. 48th Street is a designated quiet zone.

There is a Devtronics recorder in the grade crossing control house. The download from this recorder revealed the following information: grade crossing control relay (XR) down at 18:56:53.5, island down at 18:57:21.0, A-B gate down at 18:57:11.0, A-B gate not down at 18:57.20.6; this indicates 27.5 seconds of warning time, the gate arms were down 10 seconds prior to the arrival of the train, the east gate arm was down 9.4 seconds prior to being displaced by the highway vehicle. This recorder also indicates that the lamps were operating and flashing at 54 flashes per minute. The recorder indicates the grade crossing warning devices functioned as intended and the highway vehicle driver drove through the downed gate arm.

The CSX Train Control Incident System Logs were reviewed from the date of the accident (June 6, 2008) to June 1, 2007. This review revealed five logs including the accident at N. W. 48th Street. The remaining four logs were as follows: 5/9/2008, auto accident on grade crossing; 2/14/2008, Train P613-14 struck a vehicle at the grade crossing; 1/27/2008, gate arms down at grade crossing; and 9/14/2008, train crew reported a vehicle drove through a gate arm at the grade crossing.

The locomotive engineer's view of the grade crossing is unobstructed. For westward highway movements, the highway users' view of southbound train movements is obstructed by a fence, trailer park, and vegetation. The fence is a chain link fence six feet in height with meshing.

CONCLUSION:

The grade crossing was inspected by the FRA Region Three crossing & trespasser manager. The inspection determined that quiet zone signs were not in place and because of this the quiet zone was temporarily suspended. It was also determined that vegetation blocked the view of the flashing lights mounted on the east cantilever mast. This vegetation is on private property; and although the quiet zone signs were missing and the overgrowth of vegetation was present it did not contribute to the accident.

ANALYSIS: - SFRV LOCOMOTIVE

The locomotive was equipped with a headlight, auxiliary lights, and an audible warning device required by Federal regulations. These devices were tested at the accident site by a Bombardier mechanical employee and they functioned as intended with the exceptions of a ditch light that was damaged in the accident. The locomotive was equipped with a speed indicator and an event recorder as required. The relevant event recorder was downloaded by a Bombardier mechanical employee at the accident site. The analysis disclosed that the locomotive engineer was in compliance with all applicable railroad operating and train handling requirements. This is a push pull service with a locomotive on each end of the train and the rear end device is the locomotive set in the trail position.

CONCLUSION:

The locomotive operated as intended and did not contribute to the collision.

ANALYSIS: - FATIGUE

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 data FRA concluded that fatigue was not probable for any of the employees.

PROBABLE CAUSE

The cause of the accident is highway user inattentiveness. The driver drove through the downed grade crossing gate arm and failed to stop for the activated grade crossing warning devices.