Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2006-73

CSX Transportation
Rome, NY
August 16, 2006

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-2006-73

1.Name of Railroad Operating Train #1: CSX Transportation [CSX]	1a. Alphabetic Code: CSX	1b. Railroad Accident/Incident No.: R000024893
2.Name of Railroad Operating Train #2: N/A	2a. Alphabetic Code: N/A	2b. Railroad Accident/Incident: N/A
3.Name of Railroad Responsible for Track Maintenance: CSX Transportation [CSX]	3a. Alphabetic Code: CSX	3b. Railroad Accident/Incident No.: R000024893
4. U.S. DOT_AAR Grade Crossing Identification Number: 512670G	5. Date of Accident/Incident: Month 08 / Day 16 / Year 2006	6. Time of Accident/Incident: 06:29: ☐ AM ☑ PM

7. 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): 07

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

13. Nearest City/Town	14. Milepost (to nearest tenth)	15. State Abbr	15. State Code	16. County
Rome	247.85	N/A	NY	ONEIDA

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

21. Track Name/Number	22. FRA Track Class (1-9, X)	Code	23. Annual Track Density (gross tons in millions)	24. Time Table Direction 1. North 3. East	Code
Main Track No. 2		4	102.5		4

OPERATING TRAIN #1

25. 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: 1

26. Was Equipment Attended? 1. Yes 2. No — Code: 1

27. Train Number/Symbol: S377-16

28. Speed (recorded speed, if available) — R - Recorded; E - Estimated: 46 MPH — Code: R

29. Trailing Tons (gross tonnage, excluding power units): 1488

30. 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): e, f, m, N/A, N/A

30a. 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; 2. South 4. West: 0

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

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

Alcohol	Drugs
0	0

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

34. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote	35. Cars	Loade a. Freight	Loade b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Train	2	0	0	0	0	(1) Total in Equipment Consist	0	0	45	0	0
(2) Total Derailed	0	0	0	0	0	(2) Total Derailed	0	0	0	0	0

36. Equipment Damage — This Consist: 100.00

37. Track, Signal, Way, & Structure Damage: 0

38. Primary Cause Code: M302

39. Contributing Cause Code: N/A

Number of Crew Members

40. Engineer/ Operators	41. Firemen	42. Conductors	43. Brakemen
N/A	0	1	0

Length of Time on Duty

44. Engineer/Operator: Hrs 7 Mi 21

45. Conductor: Hrs 7 Mi 21

Casualties to:	46. Railroad Employees	47. Train Passengers	48. Other
Fatal	0	0	1
Nonfatal	N/A	0	4

49. EOT Device? 1. Yes 2. No — 1

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

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

OPERATING TRAIN #2

52. 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

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

54. Train Number/Symbol: N/A

55. Speed (recorded speed, if available) — R - Recorded; E - Estimated: 0 MPH — Code: N/A

57. Method(s) of Operation (enter code(s) that apply): a. ATCS; b. Auto train control; g. Automatic block; h. Current of traffic; m.Special instructions; n. Other than main track

57a. Remotely Controlled Locomotive? 0 = Not a remotely controlled; 1 = Remote control portable

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56. Trailing Tons (gross tonnage, excluding power units)	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)	2 = Remote control tower 3 = Remote control transmitter - more than one remote control transmitter
0			m N/A N/A N/A N/A	N/A

58. 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

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

Alcohol	Drugs
0	0

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

61. 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

62. Cars	Loade a. Freight	Loade 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

63. Equipment Damage This Consist: 0

64. Track, Signal, Way, & Structure Damage: 0

65. Primary Cause Code: N/A

66. Contributing Cause Code: N/A

Number of Crew Members

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

Length of Time on Duty

71. Engineer/Operator	72. Conductor
Hrs 0 Mi 0	Hrs 0 Mi 0

Casualties to:	73. Railroad Employees	74. Train Passengers	75. Other
Fatal	0	0	0
Nonfatal	0	0	0

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

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

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

Highway User Involved

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

80. Vehicle Speed (est. MPH at impact): 0

81. Direction geographical) — Code: 2
1.North 2.South 3.East 4.West

82. Position — Code: 3
1.Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing
4. Trapped

86a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

Rail Equipment Involved

83. 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)

84. Position of Car Unit in Train: 1

85. Circumstance — Code: 1
1. Rail Equipment Struck Highway User
2. Rail Equipment Struck by Highway User

86b. Was there a hazardous materials release by — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

86c. State here the name and quantity of the hazardous materials released, if any.
N/A

87. Type of Crossing Warning — Code(s): 07 N/A N/A N/A N/A N/A N/A
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

88. Signaled Crossing Warning (See instructions for codes) — Code: N/A

89. Whistle Ban — Code: 2
1. Yes
2. No
3. Unknown

90. Location of Warning — Code: 1
1. Both Sides
2. Side of Vehicle Approach
3. Opposite Side of Vehicle Approach

91. Crossing Warning Interconnected with Highway Signals — Code: 2
1. Yes
2. No
3. Unknown

92. Crossing Illuminated by Street Lights or Special Lights — Code: 2
1. Yes
2. No
3. Unknown

93. Driver's Age: 17

94. Driver's Gender — Code: 2
1. Male
2. Female

95. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — Code: 2
1. Yes 2. No 3. Unknown

96. Driver — Code: 3
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)

97. Driver Passed Standing Highway Vehicle — Code: 2
1. Yes 2. No 3. Unknown

98. View of Track Obscured by (primary obstruction) — Code: 8
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

101. Casulties to Highway-Rail Crossing Users	Killed	Injured
	1	4

99. Driver Was — Code: 2
1. Killed 2.Injured 3. Uninjured

100. Was Driver in the Vehicle? — Code: 1
1. Yes 2. No

102. Highway Vehicle Property Damage (est. dollar damage): 10000

103. Total Number of Highway-Rail Crossing Users (include driver): 5

104. Locomotive Auxiliary Lights? — Code: 1
1. Yes 2. No

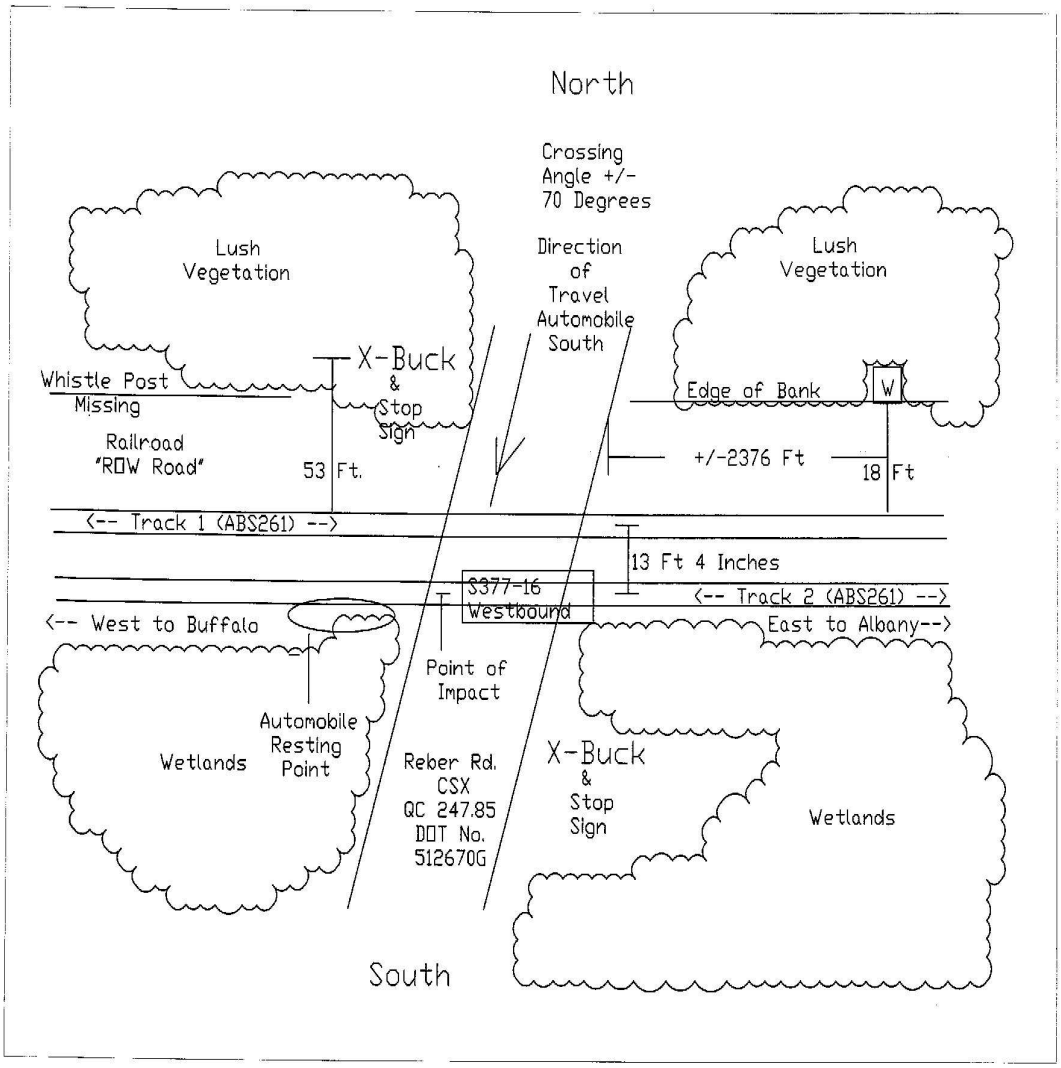
105. Locomotive Auxiliary Lights Operational? — Code: 1
1. Yes 2. No

106. Locomotive Headlight Illuminated? — Code: 1
1. Yes 2. No

107. Locomotive Audible Warning Sounded? — Code: 1
1. Yes 2. No

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

Final_Sketch.JPG



109. SYNOPSIS OF THE ACCIDENT

A westbound CSX freight train collided with an automobile at Reber Road highway-rail grade crossing (DOT #512670G), on August 16, 2006, at 6:29 p.m. The accident occurred near Rome, NY, at CSX Milepost 247.85, on Main Track No. 2, on the CSX Mohawk Subdivision, Albany Division.

There were five occupants in the motor vehicle; one male and four females. They all ranged in age from 16 to 18 years. One 17-year old female occupant was killed, three sustained critical injuries and one sustained serious injuries. The automobile was completely destroyed. There were no injuries to the train crew. Damage to the lead locomotive and rolling stock was minimal, and no equipment derailed.

At the time of the accident, it was daylight and clear. The temperature was 78 degrees F.

The accident was caused by failure of the motor vehicle driver to yield to the train as a result of highway user inattentiveness.

110. NARRATIVE

Circumstances Prior To The Accident

The crew of the S377-16 consisted of a conductor and a locomotive engineer. The home terminal for each was Selkirk, N.Y. The crew reported on duty at Selkirk Yard, Selkirk, N.Y., at 1:00 p.m., EST, on Wednesday, August 16, 2006. The conductor had received 20 hours of off-duty time prior to reporting for duty. The engineer had received 32 hours of off-duty time.

The engineer of the S377-16 has had more than 38 years of service, and his most recent re-certification date was February 16, 2006. The conductor has had more than 33 years of service, and his qualification on the physical characteristics of the Mohawk Subdivision is valid until August of 2007.

Their assigned freight train (CSXT S377-16) consisted of two locomotives and 45 empty freight cars. It was 2,800 feet long, and weighed 1,488 tons. It was operating in a westerly direction on Track No. 2 and was scheduled to travel to Buffalo, New York.

Approaching from the east on Track No. 2, the engineer of the westbound S377-16 was seated at the controls on the north side of the cab of the lead locomotive. The conductor was seated on the south side of the locomotive.

In this area of the railroad, there are two main tracks identified from north to south as Track No. 1 and Track No. 2. The Reber Road highway-rail grade crossing is located at milepost 247.85. The westward home signal for CP 248 is located just to the west of the crossing at milepost 248.2. The automatic signal to CP 248 is located 1.6 miles east of the crossing at milepost 246.2.

Traveling from east to west, the track begins a 1-degree left hand curve at milepost 247. The track is tangent for the next .8 mile, from milepost 247 to the crossing at Reber Road.

Beginning at milepost 244.12, the track begins a 0.04-percent ascending grade. The grade continues to a location just west of Reber Road at milepost 248.33.

Reber Road crosses the rail line at a slightly skewed angle from south southwest to north northeast, and approaches the crossing in both northerly and southerly directions on an ascending grade to the railroad right-of-way and the track bed. Warning devices at the crossing consist of crossbucks, with reflective tape on the back side of each, and stop signs only. No advanced warning signs and/or pavement markings exist on either side of the crossing. It is listed in the National Inventory of Highway-Rail Grade Crossings as a private way.

Approaching the crossing from the south and traveling in a northerly direction, the crossbuck and stop signs were prominently displayed and both were in plain view. Although somewhat restricted due to its location below the level of the rail bed, sight distance from the position of the crossbuck and stop sign was good in both the southeast and southwest quadrants of the crossing.

Approaching the crossing from the north and traveling in a southerly direction (the direction of the accident vehicle), while the crossbuck sign was prominently displayed and in plain view, the stop sign was almost completely obscured from vision by thick vegetation. Sight distance from the location of the crossbuck and stop sign was similarly restricted by vegetation and was poor in both the northeast and northwest quadrants of the crossing.

It is important to note that once passed the crossbuck and stop signs, traveling in either direction, the immediate crossing environment opens up to unrestricted and unlimited sight distance along tangent track to the east and the west. The distance between the crossbuck and stop sign on the south side of the crossing to Track No. 2 is 35 feet. The distance between the crossbuck and stop sign on the north side of the crossing to Track No.1 is 53 feet. Vehicles approaching from the north

and/or south are clearly visible to train crews approaching the crossing from the east and/or the west. Trains approaching the crossing from the east and/or west are plainly visible to vehicle operators approaching from the north and/or the south, providing several seconds of reaction time before arriving immediately on the crossing itself.

The railroad timetable direction is east and west. Geographic direction is similarly east and west. All directions referenced throughout this report are timetable and geographic. Train movements are governed by the signal indications of a Traffic Control System. Maximum authorized speed is 50 mph for freight, 60 mph for intermodal, and 79 mph for passenger trains. Daily traffic density averages 65 freight trains and 8 passenger trains.

The Accident

Train CSX S377-16 West

The westbound train entered the block, approaching the accident location from the east, on a green or “clear” signal indication at milepost 246.2 . The speed of the train, as recorded on the locomotive event recorder, was 46 mph, and both the bell and the locomotive horn were being sounded in accordance with current Federal regulations, providing 20 seconds of warning time before the lead locomotive arrived at the crossing. Although Federal regulations do not apply at this location (private crossing) the crew was adhering to CSX Rules requiring them to sound the horn.

According to the conductor and engineer, as the train approached the Reber Road highway-rail grade crossing, they observed the accident vehicle appear into view to their right on the north side of the crossing and proceed onto Track No. 1. They stated that the vehicle slowed down momentarily and then accelerated as it proceeded onto Track No. 2, into the path of the oncoming train.

According to both crew members, their train was approximately 5 car lengths east of the crossing when the accident vehicle appeared into their field of vision. When it became apparent that the vehicle was not going to stop as it crossed over Track No. 1, the engineer immediately initiated an emergency brake application. The train came to rest approximately 1 full train length, or 2,800 feet, west of CP 248, located just to the west of the crossing at milepost 248.2. The engineer’s actions were verified by the locomotive event recorder.

Highway Vehicle

The accident vehicle was a year-model 2004 Ford Taurus. Just moments before the accident occurred, the 17 year-old female operator traveled over the crossing in a northerly direction from south to north. She proceeded northbound on Reber Road for approximately just .3 mile to a private residence, where she turned around and proceeded in the opposite direction from north to south. She passed the crossbuck and stop sign on the north side of the crossing and onto Track No. 1. She then appears to have slowed the vehicle momentarily on Track No. 1, while, according to the conductor and engineer, an unidentified occupant of the vehicle appeared to look to the right in a westerly direction, before the driver proceeded toward Track No. 2 and into the path of the oncoming train. According to the conductor and engineer, it did not appear the driver was aware there was a train approaching from the east.

The vehicle was struck in the rear quarter on the driver’s side and was completely destroyed. There were no skid marks found at the scene; it appears the driver made no attempt to stop. The vehicle came to rest in the track ballast approximately 35 to 40 feet west of the paved portion of the crossing.

Damage to the lead locomotive (CSXT 9013) and to rolling stock was minimal, and no equipment was derailed. Neither train crew member sustained injuries. Train No. S377-16 was released to continue its westward movement at 9:30 p.m., but remained at the accident location until 11:33 p.m., awaiting the arrival of a relief crew from Selkirk, N.Y., to complete its trip to Buffalo.

The Oneida County Sheriff’s Department and CSXT Police responded to the accident. Both are conducting independent investigations. The vehicle was towed by a local towing company to the Oneida County Sheriff’s impound lot.

Analysis and Conclusions

Analysis

The operator of the accident vehicle was a 17-year old female and the additional occupants, three females and one male, ranged in age from 17 to 18 years of age. As reported by the Oneida County Sheriff’s Department, it does not appear that excessive speed was a factor in the accident, nor was there any evidence that drug and/or alcohol impairment played a role.

Reber Road highway-rail grade crossing is passively equipped; no warning lights, gates, or bells
have been installed at this location. In addition, there are no advanced warning signs or pavements markings present. Crossbuck and stop signs are positioned 35 feet to the south of Track No. 2 and 53 feet north of Track No. 1.

A railroad whistle post is located 2,376 feet east of the crossing for westbound trains. Although one has since been installed, no whistle post was in place west of the crossing for eastbound trains on the day of the accident. However, despite the fact that the crossing is considered to be private crossing (Federal regulations not applicable), CSX requires their crews to blow the horn at Reber Road. Both crew members stated that the locomotive horn was being sounded in accordance with the CSX requirement as the train approached the crossing. This information was verified by the locomotive’s event recorder.

Dense vegetation in the northwest and northeast quadrants of the crossing is not on railroad property. The roadway on the north and south sides of the crossing is owned and maintained by the City of Rome, New York. CSX is responsible for maintaining the immediate crossing itself, where the roadway physically intersects with the rail line.

Sight distance from the location of the crossbuck and stop sign on the north side of the crossing was restricted by vegetation and was poor to the east and west. Further, the stop sign on the north side of the crossing was similarly obscured by vegetation. However, the immediate crossing environment itself opens beyond the crossbuck and stop signs to unrestricted and unlimited sight distance along tangent track in both directions, with enough distance from the location of the signs to the tracks to provide several seconds of reaction time to motor vehicle operators approaching from the north and/or the south.

The accident occurred during daylight hours on a bright, clear day, with a temperature of 78°F. The operator of the vehicle was, at least, somewhat familiar with the crossing location and environment as she had, only moments before the accident, proceeded over the crossing from south to north. She then turned around and proceeded back over the crossing in a southward direction when the accident occurred.

The locomotive was equipped with a speed indicator and event recorder as required. The event recorder was removed from the locomotive and the data was downloaded by authorized CSX personnel after the locomotive arrived at its destination in Buffalo, New York. Data from the event recorder was analyzed at the CSX facility in Buffalo and it was determined that the locomotive engineer was in compliance with all applicable railroad operating rules, train handling rules, and Federal regulations. FRA reviewed the analysis and concurred with the carrier’s conclusions.

Conclusions

The railroad was in full compliance with their own, and all applicable Federal standards. The train crew members were the only witnesses to the accident, and they had no information that could be used to determine why the automobile failed to stop at the crossing.

Probable Cause and Contributing Factors

The Federal Railroad Administration found that the accident was caused by the failure of the motor vehicle driver to yield to the train as a result of highway user inattentiveness.