Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2005-98

CSX Transportation (CSX)
Oneida, New York
November 1, 2005

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-2005-98

1.Name of Railroad Operating Train #1	1a. Alphabetic Code	1b. Railroad Accident/Incident No.
CSX Transportation [CSX]	CSX	000016265
2.Name of Railroad Operating Train #2	2a. Alphabetic Code	2b. Railroad Accident/Incident
CSX Transportation [CSX]	CSX	000016265
3.Name of Railroad Responsible for Track Maintenance:	3a. Alphabetic Code	3b. Railroad Accident/Incident No.
CSX Transportation Intermodal [CSXT]	CSXT	000016265

4. U.S. DOT_AAR Grade Crossing Identification Number	5. Date of Accident/Incident			6. Time of Accident/Incident
	Month	Day	Year	
	11	01	2005	02:44: ☐ 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)* — Code: 09

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

13. Nearest City/Town	14. Milepost *(to nearest tenth)*	15. State Abbr	15. State Code	16. County
Albany	0266.0	N/A	NY	MADISON

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
68 F		2		3		2

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
Oneida Yard Lead		1	N/A		3

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	26. Was Equipment Attended? 1. Yes 2. No	Code	27. Train Number/Symbol
	1	1	1	Q62631

28. Speed *(recorded speed, if available)* R - Recorded E - Estimated			Code
	47	MPH	R

29. Trailing Tons *(gross tonnage, excluding power units)*: 7,575

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)				
n	N/A	N/A	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: 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	yes
(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
(1) Total in Train	2	0	0	0	0
(2) Total Derailed	0	0	0	0	0

35. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	48	0	61	0	0
(2) Total Derailed	0	0	0	0	0

36. Equipment Damage This Consist	37. Track, Signal, Way, & Structure Damage	38. Primary Cause Code	39. Contributing Cause Code
100	0	H221	N/A

Number of Crew Members				Length of Time on Duty	
40. Engineer/ Operators	41. Firemen	42. Conductors	43. Brakemen	44. Engineer/Operator	45. Conductor
1	0	1	0	Hrs 4 Mi 14	Hrs 4 Mi 14

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

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: 2

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	53. Was Equipment Attended? 1. Yes 2. No	Code	54. Train Number/Symbol
	9	1	1	XTGC

55. Speed *(recorded speed, if available)* R - Recorded E - Estimated			Code
	5	MPH	E

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			n N/A N/A N/A N/A	0

58. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	XTGC5	1	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
N/A	N/A

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

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	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

63. Equipment Damage This Consist	64. Track, Signal, Way, & Structure Damage	65. Primary Cause Code	66. Contributing Cause Code
140000	0	H221	N/A

Number of Crew Members

67. Engineer/ Operators	68. Firemen	69. Conductors	70. Brakemen
1	0	0	0

Length of Time on Duty

71. Engineer/Operator	72. Conductor
Hrs 7 Mi 44	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 — 2

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

78. Caboose Occupied by Crew? 1. Yes 2. No — 2

Highway User Involved

79. Type — Code: N/A
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)*

80. Vehicle Speed *(est. MPH at impact)*: N/A

81. Direction *(geographical)* — Code: N/A
1.North 2.South 3.East 4.West

82. Position — Code: N/A
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: N/A
1. Highway User 2. Rail Equipment 3. Both 4. Neither

Rail Equipment Involved

83. Equipment — Code: N/A
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: N/A

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

86b. Was there a hazardous materials release by — Code: N/A
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): N/A 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 Code *(See instructions for codes)*: N/A

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

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

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

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

93. Driver's Age: 0

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

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

96. Driver — Code: N/A
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: N/A
1. Yes 2. No 3. Unknown

98. View of Track Obscured by *(primary obstruction)* — Code: N/A
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
	0	0

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

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

102. Highway Vehicle Property Damage *(est. dollar damage)*: 0

103. Total Number of Highway-Rail Crossing Users *(include driver)*: 0

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

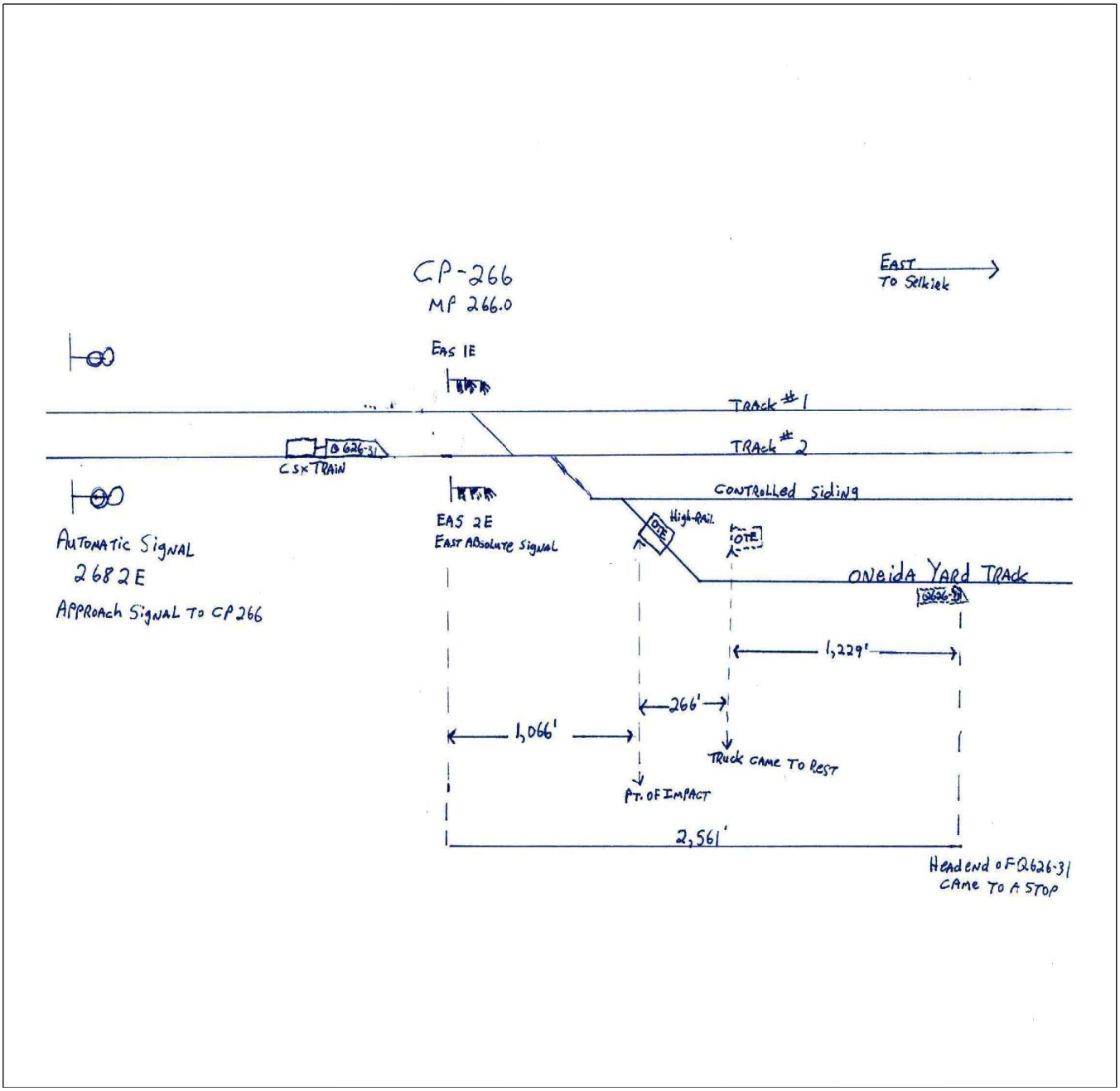
105. Locomotive Auxiliary Lights Operational? — Code: N/A
1. Yes 2. No

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

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

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

Oneida
2.jpg



109. SYNOPSIS OF THE ACCIDENT

A eastbound CSX freight train with 109 cars collided with a CSX geometry test truck on November 1, 2005, at 2:44 p.m., est. The accident occurred near Oneida, NY, at CSX Milepost QC 266, on the CSX Albany Division, Mohawk Subdivision, in Oneida Yard. Yard rules are in effect on the Oneida Yard Track.
There were no injuries to the train crew or occupants of the high-rail vehicle. The leading locomotive sustained minor damages of $100.00, and there was no derailment. The high-rail vehicle derailed and sustained damages of about $140,000.00.
At the time of the accident it was daylight, with a light rain falling. The temperature was approximately 50 degrees (F).
The accident was caused by failure of the locomotive engineer to comply with an interlocking signal displaying a stop indication.

The investigation revealed that the train operated past the Stop Signal at CP 266, without permission, at 50 mph and diverged onto the Oneida Yard Track and struck the high-rail vehicle at 47 mph. The locomotive download indicated that an emergency application of the air brakes was not initiated until 391 feet after the engine passed the Stop Signal at CP 266. The sight distance to the Stop Signal to CP 266 was measured at approximately 7,989 feet. The crew stated that the approach signal to CP 266 displayed Clear, which would indicate proceed at maximum authorized speed, not requiring the train to be prepared to stop at CP 266. CSX instituted a 24-hour watch on the signal system, which did not reveal any anomalies. The computer records from the dispatching center, which control the signal system, confirm that the eastbound Home Signal at CP 266 was placed in the Stop position and a blocking device applied to protect the high-rail vehicle movement. The results of the signal tests and the dispatching center records contradict the crews statement regarding the approach signal at Milepost QC 268.

110. NARRATIVE

The following information was obtained from an investigation that was performed by the Federal Railroad Administration.
Circumstances Prior to the Accident
The crew of train CSX Q626-31 East included a locomotive engineer and a conductor. They went on duty at 10:30 a.m., EST, November 1, 2005, at the CSX DeWitt Yard in Syracuse, NY. This was the home terminal for the crew members. The engineer had been off duty 10 hours and 15 minutes and the conductor had been off duty 36 hours and 45 minutes prior to this trip, which is more then the statutory off duty period.
Their assigned freight train consisted of two locomotives, 48 loaded and 61 empty cars of mixed freight. It was 6,000 feet long and weighed 7,575 tons. The train was destined for Selkirk, NY. The train received a Initial Terminal air brake and end- of- train (EOT) device test prior to departing DeWitt Yard.
The locomotive engineer was seated at the controls on the south side of the cab and the conductor was seated on the north side of the cab.
The train crossed over from Main Track No.1 to Main Track No. 2 at CP 270. The signal displayed a limited clear indicating the train could proceed at limited speed through the interlocking. The locomotive engineer called the limited clear over the radio as required by CSX Operating Rule No. 34-A-2 , effective November 1, 2005.
The train continued to operate to the intermediate signal at milepost 268. According to the train crew, the signal indication was proceed. The engineer stated that he did not recall communicating the indication of the signal to the conductor , which is required by CSX Operating Rule No. 34A-1, effective November 1, 2004.
The track in the accident area is a double main line running in a west to east direction between milepost 269 and 265.The track is tangent from milepost 268.4 to 265.5 with a 0.25- percent ascending grade from milepost 268.7 to 267, then 0.25-percent descending grade to milepost 265.6. In the area of the accident, there is a Controlled Siding north of main track number 2 and the Oneida Yard track is north of the Controlled Siding.
The method of operation approaching the accident area is Automatic Block Signal Rules (ABS), signaled in both directions leading to the interlocking at CP 266, where the method of operation is Control Point Signal Rules (CPS).
The crew of the hi-rail geometry vehicle (OTE XGT- 5) included a operator and a track inspector. They both

went on duty at 7:00 a.m. on November 1, 2005.They were assigned to measure track gauge and crosslevel on the Controlled Siding westbound between CP 263 and 266.They held movement form EC-1 No. 156, which went into effect at 1:59 p.m. This movement authority gave them permission to operate on the Controlled Siding between CP 263 and 266 and Main Track No. 2 track between the West Absolute Signal (WAS) and East Absolute Signal (EAS) at CP 266, with a crossover move at CP 266 from the Controlled Siding to Main Track No. 2.
The hi-rail operator and track inspector were experiencing some problems with the testing equipment and asked for and received verbal permission from the dispatcher to back down the yard track with the intentions of taking the hi-rail vehicle off at a nearby crossing. At the time of the accident, the hi-rail vehicle operator was in the process of clearing in on the Oneida Yard track at CP 266.
The railroad timetable direction of the train and the hi-rail vehicle was east. The geographic direction was also east. Timetable directions are used throughout this report.

The Accident
Train CSX Q626-31 was traveling east on Main Track No. 2 at 50 mph approaching the accident area. The crew had an unobstructed view of approximately 7,989 feet to the EAS at CP 266 ,which displayed a stop indication. The engineer stated that he didn't see the stop signal until he was right on top of it and noticed the hi-rail vehicle on the yard track. Prior to impact, he saw two people jump from the hi-rail vehicle.
The event recorder indicated that the engineer initiated an emergency application of the air brakes approximately 391 feet east of the signal at CP 266. At that point, the train was half- way through the interlocking. The switches were lined for the Controlled Siding and the Oneida Yard Track. The engineer announced an emergency broadcast three times over the radio.
The train impacted the hi-rail vehicle at approximately 47 miles per hour. At the point of impact the high-rail vehicle was located18 feet east of the siding switch frog, which was 1,066 feet east of the EAS.

The truck came to rest 267 feet east of the point of impact, between the Oneida yard Track and the Controlled Siding. The train continued down the yard track another 1,495 feet, coming to rest 2,561 feet east of the EAS.
The dispatcher heard the emergency call and asked who had made the transmission. The crew identified themselves and said they had struck a track vehicle on the siding at Oneida. The dispatcher called an ambulance and notified his superior. The engineer got out and went to check on the men, the conductor stayed on the engine to stay in contact with the dispatcher.

The crew of the OTE XGT-5 approached the west end yard track and saw the train coming but assumed the train was going 10 mph for the slow order that was in effect on the defective frog on the No. 2 track at CP 266. The testing equipment stopped working as they approached the switch so the operator decided to set the truck off on the yard track crossing and proceeded to stop just west of the yard track switch and called the dispatcher and received permission for a reverse move to the yard track. While making the reverse move at about 3-5 mph through the switch, the operator was looking in the side view mirror to protect the move and the track foreman yelled to "jump, the trains coming at them". Both occupants escaped by a few feet prior to impact.
The track foreman was taken to Oneida Hospital and released.
The operator of the high-rail went to a healthcare center later and was treated for soreness and a strain of the lower back and neck caused from jumping from the vehicle.

Analysis and Conclusions

Interviews with the Conductor and Engineer of CSX Train Q626-31 both state that the Approach Signal for CP 266 which is located at mileage QC268, 2 miles west of CP 266 was clear. The engineer stated that he proceeded to CP 266 and at the last second saw the three headed signal mast all red, saw the track car and

threw the train in emergency. The conductor stated that he was checking his paperwork and didn't notice the stop indication, only when the engineer placed the train in emergency did he notice the track car and that the switches were lined for the side track.
CSX put a 24 hour watch on the signal system and reported no problems.
Analysis from the dispatch diagnostic log from CAD at Selkirk verified the following.
At 14:39:35 The approach track indication 4EAK displayed on dispatcher display [4EAK is the track circuit between Signal 268E and EAS 4E]
At 14:41:24 Dispatcher removed route blocking.
At 14:41:29 Dispatcher requested No. 5 switch reverse to move High-Rail vehicle from control siding to Oneida yard track.
At 14:41:38 Switch No. 5 indicates reverse- High-Rail moved towards Oneida yard track.
At 14:42:01 Indication received that "switch occupied no route requested" [No signal 4EAS was requested or displayed]
Subsequently 14:42 and unknown seconds the impact occurred.
Signal 2682E verified to display approach [yellow over red] when 4EAS at stop.[red over red]

Probable Cause and Contributing Factors

The FRA determined the probable cause of the accident was the failure of the locomotive engineer to comply with an interlocking signal displaying a stop indication.