Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2006-53

METRA
Lamont, IL
June 21, 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-2006-53

1.Name of Railroad Operating Train #1: Northeast IL Regional Commuter Rail Corp. [NIRC]	1a. Alphabetic Code: NIRC	1b. Railroad Accident/Incident No.: HC005Z
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: Northeast IL Regional Commuter Rail Corp. [NIRC]	3a. Alphabetic Code: NIRC	3b. Railroad Accident/Incident No.: HC005Z
4. U.S. DOT_AAR Grade Crossing Identification Number: 309452U	5. Date of Accident/Incident: Month 06 / Day 21 / Year 2006	6. Time of Accident/Incident: 06:52:00 ☐ 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	HERITAGE

13. Nearest City/Town	14. Milepost (to nearest tenth)	15. State Abbr	15. State Code	16. County
LEMONT	23.4	N/A	IL	COOK

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
79 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 ONE		4	2.96		2

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
	2	1. Yes	1	921

28. Speed (recorded speed, if available) R - Recorded E - Estimated	Code	30. Method(s) of Operation (enter code(s) that apply)	30a. Remotely Controlled Locomotive?
79 MPH	R	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: 0

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

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

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	no
(2) Causing (if mechanical cause reported)	N/A	N/A	N/A

32. 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

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

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	1	0	0	0	0
(2) Total Derailed	1	0	0	0	0

35. Cars	Loade a. Freight	Loade b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	00	3	00	00	00
(2) Total Derailed	00	00	00	00	00

36. Equipment Damage This Consist	37. Track, Signal, Way, & Structure Damage	38. Primary Cause Code	39. Contributing Cause Code
75000	8000	M304	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
N/A	N/A	1	1	Hrs 4 Mi 37	Hrs 1 Mi 22

Casualties to:	46. Railroad Employees	47. Train Passengers	48. Other
Fatal	00	00	00
Nonfatal	N/A	5	00

49. EOT Device? 1. Yes 2. No	50. Was EOT Device Properly Armed? 1. Yes 2. No
2	N/A

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

55. Speed (recorded speed, if available) R - Recorded E - Estimated	Code	57. Method(s) of Operation (enter code(s) that apply)	57a. Remotely Controlled Locomotive?
N/A 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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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
N/A			N/A 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)	59. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.	Alcohol	Drugs
(1) First involved (derailed, struck, etc)	N/A	N/A	N/A		N/A	N/A
(2) Causing (if mechanical cause reported)	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

62. Cars	Loade a. Freight	Loade 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

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

Number of Crew Members

67. Engineer/ Operators	68. Firemen	69. Conductors	70. Brakemen
N/A	N/A	N/A	N/A

Length of Time on Duty

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

Casualties to:	73. Railroad Employees	74. Train Passengers	75. Other
Fatal	N/A	N/A	N/A
Nonfatal	N/A	N/A	N/A

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

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

Highway User Involved

79. Type — Code: C
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): 10

81. Direction geographical) — Code: 1
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: 37

94. Driver's Gender — Code: 1
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
	00	00

99. Driver Was — Code: 3
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): 3000

103. Total Number of Highway-Rail Crossing Users (include driver): 1

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

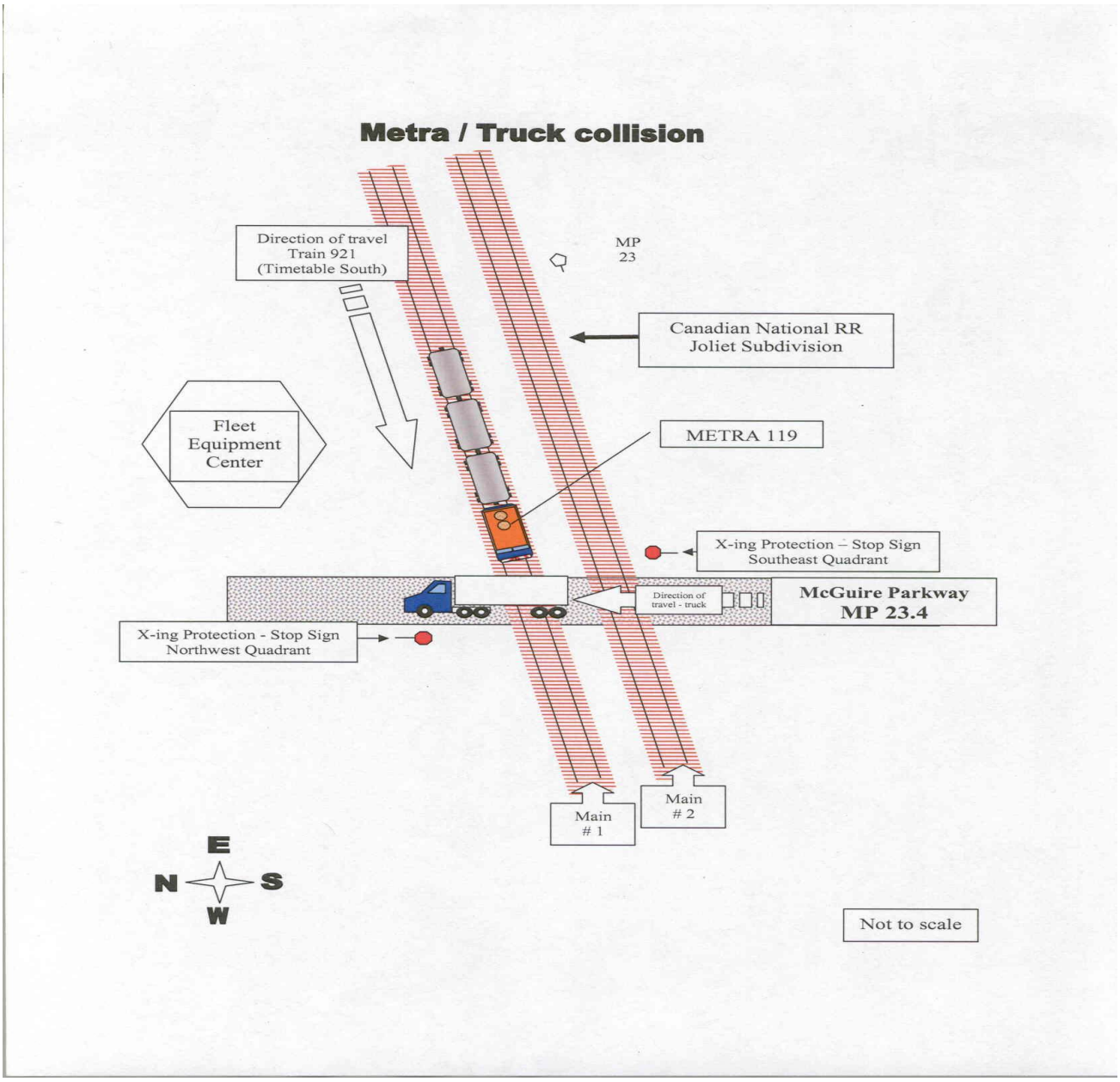
105. Locomotive Auxiliary Lights Operational? — Code: 1
1. Yes 2. No

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.

Lemont
Last
Drawing.
jpg



109. SYNOPSIS OF THE ACCIDENT

Synopsis

A Northeast Illinois Regional Commuter Rail Corporation (NIRC), a.k.a. Metra, passenger train traveling southwest on Main Track No. 1 collided with a tractor/trailer truck at a private grade crossing, on June 21, 2006, at 6:52 p.m., c.d.t. The accident occurred near Lemont, Illinois, on the Canadian National Railroad (CN) Milepost 23.4, on the CN Joliet Division. It is described as the Heritage Corridor in Metra publications.

At the time of the accident it was daylight, and clear. The temperature was 79°F.

The motor vehicle driver was not injured. The trailer of the truck was destroyed. There were no injuries to the train crew and five passengers reported minor injuries. The accident caused the lead locomotive to derail and sustain approximately $75,000 in damages.

The accident was caused by the failure of the motor vehicle driver to yield to the train. According to the Cook County Sheriff's Department, the driver was in violation of Illinois Statute 1201 (d).

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110. NARRATIVE

Circumstances Prior to the Accident

The crew of Metra Train No. 921 consisted of a locomotive engineer, a conductor and an assistant conductor. The conductor and the assistant conductor reported for duty at 6:05 a.m. The locomotive engineer reported for duty at 6:10 a.m. All the crew members reported for duty at Metra's Joliet Yard in Joliet, Illinois. Joliet Yard is the home terminal for the entire crew. Prior to reporting for duty each crew member received the required statutory off-duty period.

The regular job assignment for this train crew is Metra trains No. 918 and No. 921 operating on a daily basis, with Saturday and Sunday as rest days. Train No. 918 operates from Joliet to Chicago, Illinois. After arriving at Chicago Union Station (CUS), the crew receives an interim rest period, and then returns to operate Train No. 921 back to Joliet. The locomotive engineer inspected the locomotive assigned to Metra No. 921, prior to departure and took no exceptions. The assistant conductor and the locomotive engineer performed a Class II Air Brake Test prior to departing CUS at 6:12 p.m.

Prior to the accident, Train No. 921 stopped at two passenger stations; Summit and Willow Springs, Illinois. Approaching the accident site the locomotive engineer was seated at the controls on the right side of the locomotive. The conductor was located in the rear passenger car and the assistant conductor was located in the vestibule of the first passenger car.

In this area of the railroad, there are two tangent main tracks. The method of operation is Centralized Traffic Control (CTC), controlled by the CN dispatching office in Homewood, Illinois. Metra operates six trains daily Monday through Friday over this trackage. The CN operates approximately 16 freight trains daily and Amtrak operates six trains. The railroad timetable direction of the train was south. The geographic direction was southwest. The geographical direction will be used throughout the body of this report.

The railroad bisects the roadway at a slight northeast-southwest angle. The roadway is constructed of asphalt and about 15 feet wide. The road is situated in a south to north direction. In advance of the crossing are two stop signs, one positioned in the southwest quadrant and one in the northeast quadrant. Both stop signs are approximately 30 feet from the crossing and are eight feet high.

Approximately 200 feet in advance of the crossing in the southeast quadrant is a sign posted with the words "Caution All Vehicles Must Stop at Railroad Crossing." Stop lines are not posted on either side of the crossing. Vehicular traffic over the crossing is estimated at less than 30 vehicles per day.

The roadway serves two commercial facilities. The northeast quadrant is owned and occupied by Fleet Equipment Center, a trailer storage facility. The northwest quadrant is occupied by All Seasons Incorporated, a mixed use commercial facility.

There is some confusion with the actual DOT crossing information. The Metra Operations Profile indicates MP 23.40 as Morris Street crossing. The Lemont Police identify this roadway as McGuire Parkway. The last collision at this crossing occurred on December 19, 2005, involving Amtrak Train No. 303 operating southward, the driver of the motor vehicle was killed. That accident was incorrectly reported by Amtrak using DOT No. 289731G, the correct DOT number is No. 309452U. For the purposes of this report, McGuire Parkway, will be used as the name of the private grade crossing.

The Accident

Train No. 921 was traveling south at a recorded speed of 79 mph approaching the accident site. The locomotive engineer's view of the crossing was unobstructed. The engineer said that he could see a tractor/trailer near McGuire Parkway crossing. When he realized that the vehicle was not going to clear the crossing, he blew the horn and initiated an emergency train air brake application and braced himself. The train struck the right side of the tractor/trailer, at midpoint of the trailer,

cutting the trailer in half. One half of the trailer landed on Main Track No. 2. The other half of the trailer became wedged against the front of the locomotive under the snow pilot causing the locomotive to derail at the crossing. The train continued traveling and stopped completely upright at approximately 1,470 feet from the point of impact. The locomotive was the only railroad equipment derailed. The fuel tank was ruptured and leaking fuel. After the train stopped, the locomotive engineer established radio contact with the train dispatcher. The conductor opened the door on the rear car, leaned out and looked toward the front of the train and saw the locomotive derailed. He then called the Metra trainmaster on duty using his company cell phone. He told the trainmaster about the accident and asked the trainmaster to call the CN dispatching office to ensure they were notified of the accident. The conductor also checked on the status of his passengers, no passenger injuries were reported to him. The conductor also spoke briefly with the driver of the tractor/trailer who was not injured.

The assistant conductor exited the train and walked to the front of the train to check on the locomotive engineer. The locomotive engineer was inspecting the locomotive, the assistant conductor gave the engineer his portable radio so the engineer could communicate with any person responding to the accident. He returned to the train to determine if the passengers were hurt, no passenger injuries were reported to him. No crew members reported any personal injury. The locomotive engineer later felt light-headed but he recovered after sitting down and relaxing.

The speed of the train was recorded by the event recorder on the locomotive. The maximum authorized speed as indicated in the current CN Timetable No. 2, is 79 mph. The time of the accident was approximately 6:52 p.m. Because of the fuel leak the Lemont Fire Chief wanted the passengers to be removed from the train. Approximately 170 passengers detrained and either walked to the Lemont train station, located one half mile from the accident, or were bused to their final destination. Four passengers complained of minor injuries and were taken to either Palos Hospital or Silver Cross Hospital by the Lemont Fire Department, all were treated and released. The following day a passenger requested treatment for a back injury, that person was also treated and released.

A Metra superintendent and a trainmaster arrived at the scene at approximately 7:20 p.m. They inspected the accident site and requested Hulcher Services to help rerail the locomotive. After the locomotive was rerailed, a train crew arrived from Joliet with another locomotive and pulled Train No. 921 to the Joliet Yard.

Highway Vehicle

The tractor/trailer was traveling northeast on the roadway. According to the locomotive engineer the driver appeared to be looking down at his lap as if reading. The driver was delivering a trailer to the Fleet Equipment Center for storage. The estimated damage to the trailer was approximately $3,000. The driver did not seek any medical attention.

Analysis and Conclusion

The driver of the tractor/trailer was a 37-year-old male and possessed a valid CDL license for the State of Illinois. He had traveled over the crossing on numerous occasions.

The private grade crossing is equipped with stop signs on both the north and south side of the crossing. There are no active warning devices. Vehicular traffic stopped at the stop sign on the southeast side of the crossing has an unobstructed view when looking either northeast or southwest.

The locomotive was equipped with a headlight, auxiliary lights, and the audible warning device required by Federal regulations. The locomotive engineer said that these devices were functioning at the time of the accident. The locomotive was equipped with a speed indicator and an event recorder as required. The relevant event recorder data was downloaded by the trainmaster at the accident site. The event recorder data indicated the locomotive engineer was in compliance with all applicable railroad operating and train handling requirements. FRA reviewed the results of this analysis and concurred with the conclusions.

This accident did not meet the criteria for 49 CFR Part 219, Subpart C Post Accident Toxicology Testing. Metra elected not to test under their post accident toxicology testing authority, since it also failed to meet their prescribed testing authority.

Conclusions

The railroad was in compliance with their own operating and safety rules and all applicable Federal regulations. The locomotive engineer witnessed the driver proceed over the crossing in front of the train. Based on the evidence, the Cook County Sheriff's Department issued a citation to the driver for failure to yield at a railroad crossing.

Probable Cause & Contributing Factors

The Federal Railroad Administration concluded that the accident occurred because the driver of the tractor/trailer failed to yield to the train.

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