Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2008-57

Union Pacific (UP)
White Castle, LA
June 25, 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-2008-57

1.Name of Railroad Operating Train #1: Union Pacific RR Co. [UP]	1a. Alphabetic Code: UP	1b. Railroad Accident/Incident No.: 0608LV022
2.Name of Railroad Operating Train #2: Union Pacific RR Co. [UP]	2a. Alphabetic Code: UP	2b. Railroad Accident/Incident No.: 0608LV022
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: Union Pacific RR Co. [UP]	4a. Alphabetic Code: UP	4b. Railroad Accident/Incident No.: 0608LV022
5. U.S. DOT_AAR Grade Crossing Identification Number:	6. Date of Accident/Incident: Month 06 | Day 25 | Year 2008	7. Time of Accident/Incident: 03:46:29 ☑ 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: 04

9. Cars Carrying HAZMAT	10. HAZMAT Cars Damaged/Derailed	11. Cars Releasing HAZMAT	12. People Evacuated	13. Division
21	0	0	0	Livonia

14. Nearest City/Town	15. Milepost *(to nearest tenth)*	16. State Abbr	16. State Code	17. County
White Castle	74.9	N/A	LA	IBERVILLE

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
78 F	4	2	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
Livonia Sub Mainline	4	31.2	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
1	1	ILBNO-20

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 | 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
30. Trailing Tons *(gross tonnage, excluding power units)*: 7012	Code(s): e | N/A | N/A | N/A | N/A	0

32. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	UP 5287	1	yes
(2) Causing *(if mechanical cause reported)*	N/A	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

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	4	0	0	0	0
(2) Total Derailed	1	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	123	0	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
$200,000.00	$4,970.00	H401	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 3 Mi 33	Hrs 3 Mi 49

Casualties to:	47. Railroad Employees	48. Train Passengers	49. Other
Fatal	0	0	0
Nonfatal	2	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 — N/A

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
1	1	MNOLI-24

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?
10 MPH | R	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)*: 3554

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): e | N/A | N/A | N/A | N/A

2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter: 0

59. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	XTRX 77661	66	no
(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
0	0

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

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	2	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	12	0	62	0	0
(2) Total Derailed	2	0	1	0	0

64. Equipment Damage This Consist: $46,272.00

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

66. Primary Cause Code: 0

67. Contributing Cause Code: 0

Number of Crew Members

68. Engineer/ Operators	69. Firemen	70. Conductors	71. Brakemen
1	0	1	0

Length of Time on Duty

72. Engineer/Operator: Hrs 9 Mi 35

73. Conductor: Hrs 9 Mi 35

Casualties to:	74. Railroad Employees	75. Train Passengers	76. Other
Fatal	0	0	0
Nonfatal	2	0	0

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

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

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: 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. 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)*

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

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

Rail Equipment Involved

111. 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)*

112. Position of Car Unit in: 0

110. Position	Code
1.Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing 4. Trapped	N/A

113. Circumstance	Code
1. Rail Equipment Struck Highway User 2. Rail Equipment Struck by Highway User	N/A

114a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials?	Code
1. Highway User 2. Rail Equipment 3. Both 4. Neither	N/A

114b. Was there a hazardous materials release	Code
1. Highway User 2. Rail Equipment 3. Both 4. Neither	N/A

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

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

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

116. Signaled Crossing *(See instructions for codes)*	Code
	N/A

117. Whistle Ban	Code
1. Yes 2. No 3. Unknown	N/A

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

119. Crossing Warning with Highway Signals	Code
1. Yes 2. No 3. Unknown	N/A

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

121. Age	122. Driver's Gender	Code
0	1. Male 2. Female	N/A

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

124. Driver	Code
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)*	N/A

125. Driver Passed Highway Vehicle	Code
1. Yes 2. No 3. Unknown	N/A

126. View of Track Obscured by *(primary obstruction)*	Code
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	N/A

Casualties to:	Killed	Injured
129. Highway-Rail Crossing Users	0	0

127. Driver	Code
1. Killed 2.Injured 3. Uninjured	N/A

128. Was Driver in the Vehicle?	Code
1. Yes 2. No	N/A

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

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

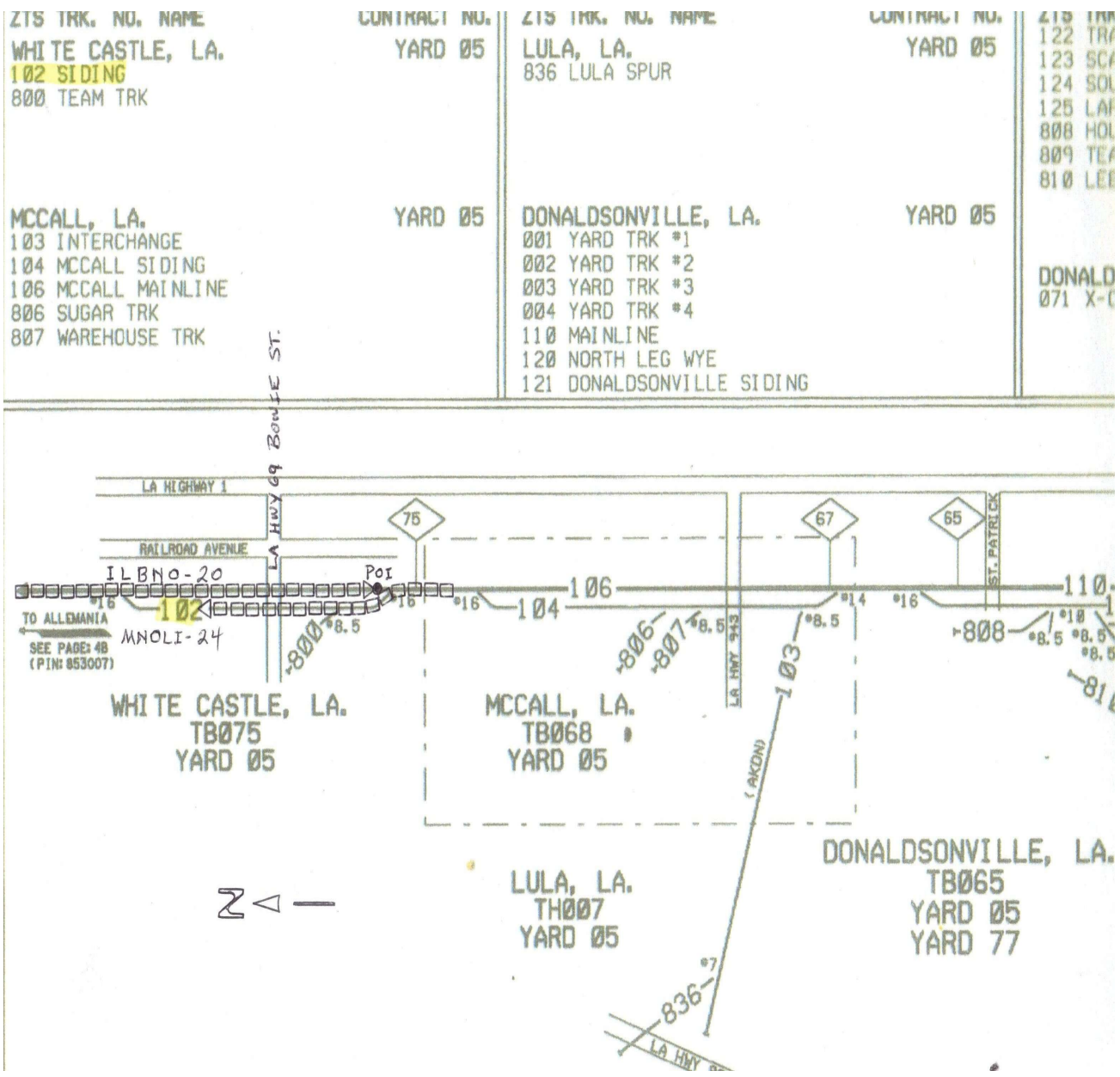
132. Locomotive Auxiliary Lights?	Code
1. Yes 2. No	N/A

133. Locomotive Auxiliary Lights Operational?	Code
1. Yes 2. No	N/A

134. Locomotive Headlight Illuminated?	Code
1. Yes 2. No	N/A

135. Locomotive Audible Warning Sounded?	Code
1. Yes 2. No	N/A

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



137. SYNOPSIS OF THE ACCIDENT

On June 25, 2008, southbound Union Pacific (UP) Freight Train ILBNO-20 was traversing the UP Livonia Subdivision Single Mainline, en route from Livonia, La. to Avondale, La. Within this territory, train movements are governed by the UP Train Dispatcher and a Centralized Traffic Control [CTC] signal system. The UP Dispatcher had a planned meet between UP Train ILBNO-20 and UP Train MNOLI-24, a northbound freight train, at White Castle, La. UP Train ILBNO-20 was to remain on the mainline; UP Train MNOLI-24 was to take siding.

As UP Train ILBNO-20 approached North White Castle, UP Train MNOLI-24 conductor announced, via radio, that his train was at Control Point 75 [CPL], Milepost [MP] 75.0,[South White Castle], entering the siding with 74 cars. UP Train MNOLI-24 was 4,474 feet in length with 3,554 trailing tons. White Castle Siding is 7,251 feet in length. Maximum siding speed is 10mph.

As UP Train ILBNO-20 neared the south end of White Castle Siding, the crew observed the mainline signal, at that location, to be dark [unlighted], and the rear cars of UP Train MNOLI-24 fouling the mainline. The engineer attempted to stop his train short of the signal with an emergency train air brake application. UP Train ILBNO-20 passed the clearance point of the mainline and collided with the side of UP Train MNOLI-24 at 3:46am.

The lead locomotive of UP Train ILBNO-20 and the 66-67-68th cars of UP Train MNOLI-24 derailed. The 69th and 70th of UP Train MNOLI-24 were damaged, but did not derail. Estimated overall damage to the two trains and track structure was estimated at $251,744.

No hazardous material cars derailed. No products were released. There was no evacuation ordered.

During investigation of the accident by UP officers, the crew of UP Train ILBNO-20 complained of sore backs. The employees were transported to River West Medical Center, 59355 River West Drive, Plaquemine, La., for examination, and FRA Post-Accident Toxicological Specimen Collection.

The crew of UP Train MNOLI-24 did not sustain any injuries. UP officers determined the employees' actions did not contribute to the accident. The crew was not charged with any violation of railroad operating rules or Federal regulations, nor required to submit to post-accident drug and alcohol testing.

Visibility was dark and overcast with no artificial lighting in the area. Temperature was 78 degrees F.

The primary cause of the accident was failure of the crew of UP Train ILBNO-20 to stop clear of a 'dark' (restricting) signal, which would have placed the train in the clear on the mainline. Contributing factors were the engineer's failure to execute proper train handling techniques and probable fatigue, as determined by FRA's Fatigue Analysis Program.

138. NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

On June 25, 2008, the crew assigned to southbound freight train UP ILBNO-20 consisted of an engineer and conductor. The employees reported for duty at 1:50 a.m. at their home terminal, UP Livonia Yard, Livonia, La., en route to Avondale, La. The engineer had 16 hours 20 minutes required statutory off duty rest; the conductor had 16 hours ten minutes required statutory off duty rest.

UP Train ILBNO-20 consisted of lead locomotive UP 5287, 123 loaded rail cars and was 7,472 feet in length with 7,012 trailing tons. UP Train ILBNO-20 received an initial terminal train air brake test prior to departure. There were no restrictions placed on the train as a result of mechanical or car department tests, or track orders.

As UP Train ILBNO-20 traversed the UP Livonia Mainline, the engineer was seated behind the locomotive control stand, on the west side of the cab. The conductor was seated on the opposite side of the locomotive cab.

At MP 78.8, north of White Castle, La., the crew passed an intermediate signal displaying "Advance Approach" (flashing yellow). At this time, the conductor of northbound UP Train MNOLI-24 announced, via radio, that his train was entering the south end of White Castle Siding with 74 cars. Maximum siding train speed was 10 mph.

In the vicinity of White Castle the track is tangent with no grades or curves. There are no view obstructions.

Direction of the train was south, as designated by the UP Houston Timetable No.4, Livonia Subdivision. The geographic direction was southeast.

THE ACCIDENT

Between Livonia and Avondale, La., the UP Train Dispatcher authorizes mainline movements and controls siding switches via a Centralized Traffic Control (CTC) signal system. Maximum authorized mainline speed for freight trains is 60 mph.

When UP Train ILBNO-20 passed a flashing yellow signal at MP 78.8, the conductor held a job briefing with the engineer regarding their meet with UP Train MNOLI-24, and a possible stop at the south end of White Castle Siding. The engineer acknowledged by decreasing the locomotive throttle and applying dynamic locomotive brakes.

When UP Train ILBNO-20 reached MP 76.6 at North White Castle, the signal at that location displayed a Yellow (Approach) aspect, indicating train speed must be reduced to 35 mph, prepared to stop at the next signal at MP 75.0. At that point, the train's recorded speed was 27 mph as indicated by engineer and conductor speed indicators in the locomotive cab.

White Castle Siding is 7,251 feet in length, which was an approximate stopping distance for UP Train ILBNO-20. Operating rules require that a train meeting another train must stop at least 400 feet from the signal or clearance point of the facing point switch the other train will pass over.

The engineer and conductor became aware of an impending collision about 1/2 mile from the South end of the siding, when they observed the signal at MP 75.0 to be 'dark' [unlighted], and the rear cars of UP Train MNOLI-24 on the mainline. At that time the engineer attempted to stop the train with an emergency application of the train brakes. The weight of UP Train ILBNO-20 pushed the train passed the dark signal, and the clearance point of the siding, resulting in a side impact collision with UP Train MNOLI-24 at 7 mph. At the time of impact, UP Train MNOLI-24 was proceeding through the siding at 10 mph. The speed of both trains was verified by the Event Recorder data retrieved from each lead locomotive.

ACTUAL DAMAGE COSTS:

The lead locomotive of UP Train ILBNO-20, UP 5287, sustained $200,500.00 in damage. The 66th-70th cars of UP Train MNOLI-24 received $46,274.00 in damage. Track damage was $4,970.00.

ANALYSIS AND CONCLUSIONS

ANALYSIS-LOCOMOTIVE ENGINEER OPERATING PERFORMANCE:

The engineer of UP Train ILBNO-20 failed to execute proper train handling techniques by not sufficiently reducing train speed in accordance with train stop procedures through the use of dynamic locomotive and/or train air brakes. UP cited the crew of UP Train ILBNO-20 with 'Failure to stop their train in the clear', Human Factor code H401, referenced in the FRA Guide for Preparing Accident/Incident Reports. The locomotive was equipped with a speed indicator and an event recorder as required. Event recorder data was downloaded from the lead locomotive.

CONCLUSION:

The locomotive engineer was not in compliance with applicable railroad operating and train handling requirements.

ANALYSIS-FATIGUE:

FRA uses an overall effectiveness rate of 77.5% as the baseline for fatigue analysis, which is equivalent to blood alcohol content (BAC) of 0.05. At or above this baseline, we do not consider fatigue as probable for any employee. Software sleep settings vary according to information obtained from each employee. If an employee does not provide sleep information, FRA uses the default software settings.

FRA obtained a 10-day work history for the engineer and conductor assigned to UP Train ILBNO-20 extracted from hours of service records and cross-referenced with payroll records. The FRA Fatigue Analysis manager was able to determine if any sleep deprivation existed prior to the accident.

CONCLUSION:

FRA's Fatigue Analysis Program determined fatigue was probable for both the engineer and conductor of UP Train ILBNO-20 on 6-25-08.

ANALYSIS-FRA/UP SIGNAL TESTS & INSPECTIONS:

On 6-25-08, at 4:15am, the UP Signal Department conducted tests and inspections of southbound signal LO75 and the signal system.

CONCLUSION:

Test records, remedy ticket description and control indication for southbound signal LO75, White Castle, La., did not disclose any exceptions, other than a red bulb burned out (dark). FRA S&TC Inspector concurred with test results.

OVERALL CONCLUSIONS:

The railroad was in compliance with railroad operating rules and applicable Federal standards. The crew of UP Train ILBNO-20 failed to comply with General Code of Operating Rules (GCOR) 6.8-stopping in the clear for meeting or passing other trains. The failure resulted in a side collision with UP Train MNOLI-24 which was entering White Castle Siding.

PROBABLE CAUSE & CONTRIBUTING FACTORS:

FRA determined that the accident was caused by failure of UP Train ILBNO-20 engineer to execute proper train handling techniques, as required by railroad operating rules; and failure to stop his train clear of a 'dark' (restricting) signal, as required by GCOR 6.8, i.e., "a train to be met or passed must stop at least 400 feet from the signal or clearance point of the facing point switch the other train will pass over".

FRA's Fatigue Analysis Program determined that fatigue was probable for both the engineer and conductor of UP Train ILBNO-20 on 6-25-08, which may have been a contributing factor in the accident