Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2005-22

Union Pacific (UP)
Humble, Texas
March 11, 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-2005-22

1.Name of Railroad Operating Train #1: UNION PACIFIC RAILROAD COMPANY	1a. Alphabetic Code: UP	1b. Railroad Accident/Incident No.: 0305HO008
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: Union Pacific RR Co. [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: 0305HO008
4. U.S. DOT_AAR Grade Crossing Identification Number: 440201E	5. Date of Accident/Incident: Month 03 / Day 11 / Year 2005	6. Time of Accident/Incident: 11:34: ☑ 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	Houston

13. Nearest City/Town	14. Milepost (to nearest tenth)	15. State Abbr	15. State Code	16. County
Houston, Texas	389.6	N/A	TX	HARRIS

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
75 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
Single main track		4	30.00		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: 1

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

27. Train Number/Symbol: ALDI09

28. Speed (recorded speed, if available) — Code
R - Recorded
E - Estimated 42 MPH — Code: R

29. Trailing Tons (gross tonnage, excluding power units): 8186

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): p 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	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
(1) Total in Train	2	0	0	0	0
(2) Total Derailed	0	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	65	0	63	0	0
(2) Total Derailed	0	0	0	0	0

36. Equipment Damage — This Consist: 500.00

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

38. Primary Cause Code: M303

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 6 Mi 14

45. Conductor: Hrs 6 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 — 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) — Code
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			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)
(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: D
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): 00

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

82. Position — Code: 2
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: 2
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
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

Code(s)							
07	08	N/A	N/A	N/A	N/A	N/A	

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

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: 23

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: 4
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
	3	1

99. Driver Was — Code: 1
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): 15000

103. Total Number of Highway-Rail Crossing Users (include driver): 4

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

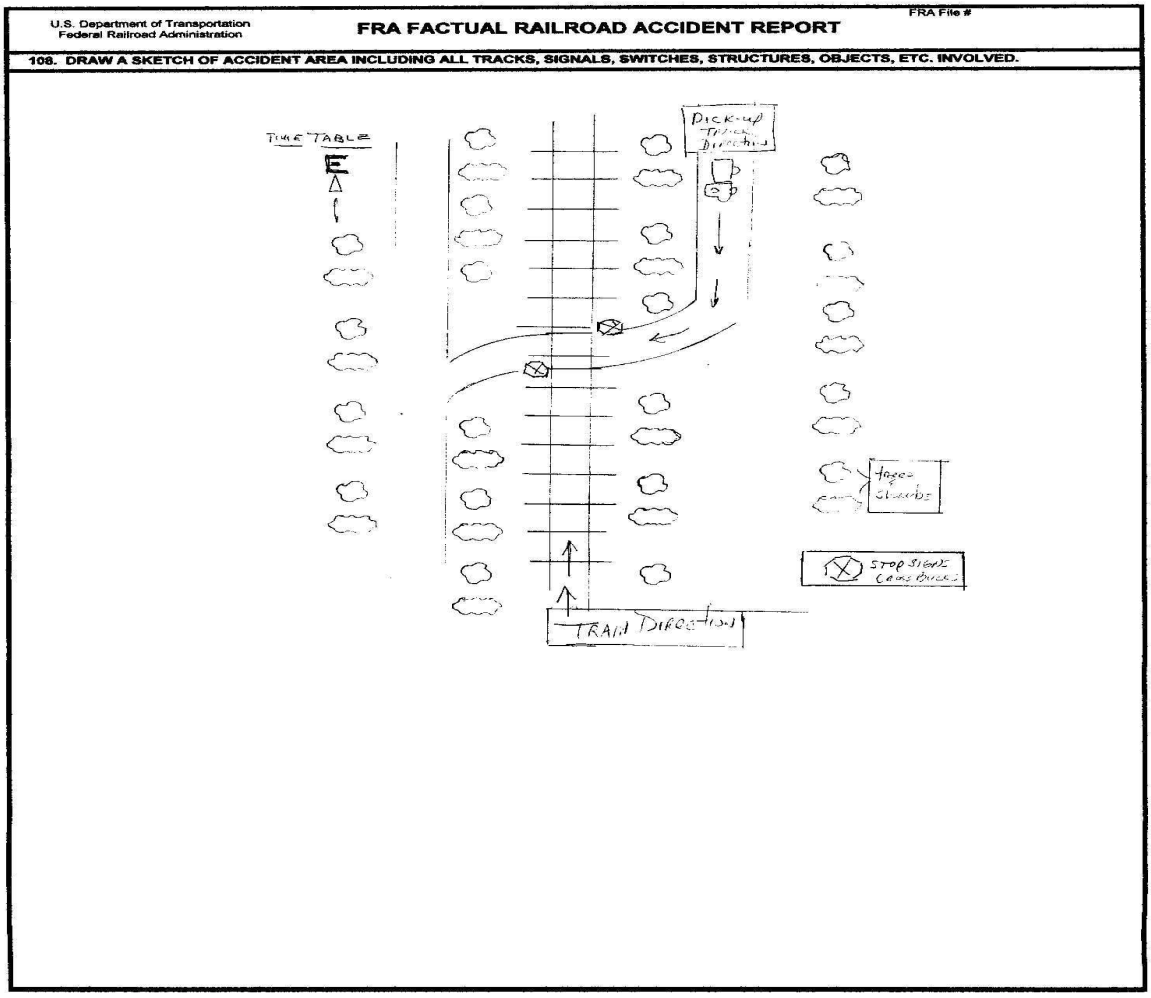
105. Locomotive Auxiliary Lights Operational? — Code: 1
1. Yes 2. No

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.

HRX-22-2005.jpg



109. SYNOPSIS OF THE ACCIDENT

Synopsis of the Accident

An eastbound UP freight train collided with a truck at a private roadway grade crossing, on March 11, 2005, at 11:34 a.m.
The accident occurred near Houston, Texas, at UP Milepost 389.61, on the Lafayette Subdivision.

The motor vehicle driver and two passengers were killed, one passenger survived the accident. The truck was completely destroyed. There were no injuries to the train crew. The leading locomotive sustained minor damage of about $500.00, and there was no derailment.

At the time of the accident it was daylight and clear. The temperature was 75 ° F.

The accident was caused by the failure of the motor vehicle driver's misjudgment under normal conditions, possibly with inattentiveness and inexperience as contributing factors.

110. NARRATIVE

The following information was obtained from an investigation that was conducted by the Federal Railroad Administration.

Circumstances Prior to the Accident
The crew of train UP ALDI 09 East included a locomotive engineer, and a conductor. They first went on duty at 5:20 a.m., CDT March 11, 2005, at the UP train crew center, Houston, Texas. This was the home terminal for both crew members, and both received more than the statuary off duty period, prior to reporting for duty.

Their assigned freight train, ALDI 09, consisted of two locomotives, 65 loaded and 63 empty cars of several varieties. The train was 7,962 feet long, and weighed 8,186 tons. The train was scheduled to travel from Laredo, Texas to Livonia, Louisiana, with a step off and on at Houston, Texas. The train last received a Class I brake test, initial terminal air brake test, at Kirby, Texas, on March 10, 2005, at 6:25 p.m., prior to arrival Houston, Dyersdale Station. Prior to departure Dyersdale Station the locomotive engineer conducted a set and release of the train air brakes by the EOT device and the engineer also performed a daily inspection of the locomotives.

As the eastbound train approached the accident area, the locomotive engineer was seated at the controls on the south side of the leading locomotive and the conductor was seated on the north side.

In this area of the railroad the track is tangent and grade level, traveling through a heavy wooded and isolated area.
The method of operation for this section of track is Centralized Train Control (CTC).

The railroad time table direction of the train was east. The geographic direction was north.
Time table directions are used throughout this report.

The Accident
Train UP ALDI09 East
The train was being operated at a recorded speed of 42 mph approaching the accident area. The train crews' view of the crossing was clear and unobstructed. The engineer stated he was looking at the console's gauges when he heard the conductor say something. He looked up and from the console and observed the truck on a dirt road exiting through some trees. The train was about 8 car lengths from the private crossing at this time, and he said, the truck made a 90 degree turn toward the crossing and appeared to stop. The engineer stated the locomotive whistle was blowing and about 2 car lengths from the crossing the engineer said he saw the driver and rear passenger look toward him and than move up onto the crossing. The engineer stated that when he realized he was going to impact the truck he placed the train air brakes into a full service reduction.

Train speed was recorded by the event recorder of the controlling locomotive. The maximum authorized speed through this area is 40 mph as designated in the current UP Timetable No. 3.

Highway Vehicle
The pickup truck was traveling east to west. According to the train crew the vehicle made a turn toward the crossing and appeared that the vehicle stopped prior the grade crossing, and than drove onto the crossing. There were no posted speed limits on the dirt road.

The leading locomotive's draw bar struck the truck driver's door on the left side of truck. The truck was carried eastward for about 2,954 feet before coming to rest

After the train stopped, the locomotive engineer stayed on the locomotive to establish radio communications with the train dispatcher and emergency 911 operator. The conductor got off the locomotive to check for casualties and await emergency response personnel.

Emergency responders from Harris County Emergency Service Unit (EMS), Texas Department of Public safety, and the Harris County Coroner Office began arriving at 11:58 a.m. The driver and two rear passengers were pronounced dead at the scene by the Harris County Coroner, and the front seat passenger was taken to Hermann Hospital. The survivor required minor medical treatment.

Analysis and Conclusions
Analysis
The driver, a fatality, was a 23 year old male. The two rear passengers of the vehicle were males, ages 47 and 37, and also fatalities. The only vehicle survivor, front seat passenger was a 21 year old male.
The private crossing is equipped with cross bucks and stop signs and there were no gates. The road is a dirt road with no posted speed limit signs or marking of any kind.

The leading locomotive was equipped with a headlight, the auxiliary lights, and the audible warning devices required by the Federal Regulations.
The locomotive whistle was sounded prior to accident, this was later validated by analysis of the event recorder.
These devices were tested at the accident site with all parties present, and they tested and functioned as intended.

The locomotive was also equipped with a speed indicator and an event recorder as required. The event recorder data was downloaded by the trainmaster at the accident site, and analyzed at the UP Headquarters in Spring, Texas. The analysis disclosed the locomotive engineer was in compliance with applicable railroad operating and train handling requirements. FRA reviewed the results of the analysis, and concurred with the conclusions.
The locomotive engineer consented and gave a report of interview to this inspector. The conductor requested not to provide a interview to this inspector.

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 other than the lone survivor of the truck. The survivor left the country to Mexico after release from hospital.
The bodies of the three males were taken to Mexico.

Probable Cause & Contributing Factors
The FRA determined that the accident occurred because of the driver misjudgement under normal conditions and inattention.
Driver inexperience may have been a contributing factor.