Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2005-14

Amtrak (ATK)/Union Pacific (UP)
Oxnard, California
February 14, 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-2005-14

1.Name of Railroad Operating Train #1: Amtrak [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 95533
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.: 0205LA019
4. U.S. DOT_AAR Grade Crossing Identification Number: 745854B	5. Date of Accident/Incident: Month 02 / Day 14 / Year 2005	6. Time of Accident/Incident: 04:35: ☐ AM ☑ PM

7. Type of Accident/Indicent (single entry in code box)	1. Derailment	4. Side collision	7. Hwy-rail crossing	10. Explosion-detonation	13. Other (describe in narrative)	
	2. Head on collision	5. Raking collision	8. RR grade crossing	11. Fire/violent rupture		
	3. Rear end collision	6. Broken Train collision	9. Obstruction	12. Other impacts		07

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

13. Nearest City/Town	14. Milepost (to nearest tenth)	15. State Abbr	15. State Code	16. County
Oxnard	405.2	N/A	CA	VENTURA

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
65 F		2		2		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		4	10		1

OPERATING TRAIN #1

25. Type of Equipment Consist (single entry)				A. Spec. MoW Equip. Code	26. Was Equipment Attended? 1. Yes 2. No	Code	27. Train Number/Symbol
1. Freight train	4. Work train	7. Yard/switching					
2. Passenger train	5. Single car	8. Light loco(s).		2	1	1	775-14
3. Commuter train	6. Cut of cars	9. Maint./inspect.car					

28. Speed (recorded speed, if available)		Code	30. Method(s) of Operation (enter code(s) that apply)			30a. Remotely Controlled Locomotive?
R - Recorded			a. ATCS	g. Automatic block	m.Special instructions	0 = Not a remotely controlled
E - Estimated	79 MPH	R	b. Auto train control	h. Current of traffic	n. Other than main track	1 = Remote control portable
			c. Auto train stop	i. Time table/train orders	o. Positive train control	2 = Remote control tower
29. Trailing Tons (gross tonnage, excluding power units)			d. Cab	j.Track warrant control	p. Other (Specify in narrative)	3 = Remote control transmitter - more than one remote control transmitter
	0		e. Traffic	k. Direct traffic control	Code(s)	
			f. Interlocking	l.Yard limits	e N/A N/A N/A N/A	0

31. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded (yes/no)	32. 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	1	N/A		0	0
(2) Causing (if mechanical cause reported)	0	0	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	35. Cars	Loade a. Freight	Loade b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Train	1	0	0	0	0	(1) Total in Equipment Consist	0	5	0	0	0
(2) Total Derailed	0	0	0	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
81574	1500	M302	H304

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	0	1	1	Hrs 2 Mi 25	Hrs 2 Mi 25

Casualties to:	46. Railroad Employees	47. Train Passengers	48. Other	49. EOT Device? 1. Yes 2. No	50. Was EOT Device Properly Armed? 1. Yes 2. No
Fatal	0	0	0	2	N/A
Nonfatal	N/A	0	0	51. Caboose Occupied by Crew? 1. Yes 2. No	2

OPERATING TRAIN #2

52. Type of Equipment Consist (single entry)				A. Spec. MoW Equip. Code	53. Was Equipment Attended? 1. Yes 2. No	Code	54. Train Number/Symbol
1. Freight train	4. Work train	7. Yard/switching					
2. Passenger train	5. Single car	8. Light loco(s).		N/A	N/A	N/A	N/A
3. Commuter train	6. Cut of cars	9. Maint./inspect.car					

55. Speed (recorded speed, if available)		Code	57. Method(s) of Operation (enter code(s) that apply)			57a. Remotely Controlled Locomotive?
R - Recorded			a. ATCS	g. Automatic block	m.Special instructions	0 = Not a remotely controlled
E - Estimated	0 MPH	N/A	b. Auto train control	h. Current of traffic	n. Other than main track	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)	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)	0	0	N/A		N/A	N/A
(2) Causing (if mechanical cause reported)	0	0	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	62. Cars	Loade a. Freight	Loade b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Train	0	0	0	0	0	(1) Total in Equipment Consist	0	0	0	0	0
(2) Total Derailed	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
0	0	N/A	N/A

Number of Crew Members				Length of Time on Duty	
67. Engineer/ Operators	68. Firemen	69. Conductors	70. Brakemen	71. Engineer/Operator	72. Conductor
0	0	0	0	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?	77. Was EOT Device Properly Armed?	78. Caboose Occupied by Crew?
1. Yes 2. No N/A	1. Yes 2. No N/A	1. Yes 2. No N/A

Highway User Involved

79. Type	Code
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)	C

80. Vehicle Speed (est. MPH at impact)	81. Direction geographical) 1.North 2.South 3.East 4.West	Code
0		3

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

86a. 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	4

Rail Equipment Involved

83. Equipment	Code
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)	1

84. Position of Car Unit in Train
1

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

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

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	88. Signaled Crossing Warning (See instructions for codes) Code	89. Whistle Ban 1. Yes 2. No 3. Unknown Code
Code(s)	01 02 03 05 06 07 N/A		2

90. Location of Warning	Code	91. Crossing Warning Interconnected with Highway Signals	Code	92. Crossing Illuminated by Street Lights or Special Lights	Code
1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach	1	1. Yes 2. No 3. Unknown	1	1. Yes 2. No 3. Unknown	1

93. Driver's Age	94. Driver's Gender 1. Male 2. Female	Code	95. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	Code	96. Driver 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)	Code
52		2		1		4

97. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown	Code	98. View of Track Obscured by (primary obstruction) 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	Code
	2		8

101. Casulties to Highway-Rail Crossing Users	Killed	Injured	99. Driver Was 1. Killed 2.Injured 3. Uninjured	Code	100. Was Driver in the Vehicle? 1. Yes 2. No	Code
	0	0	3		1	

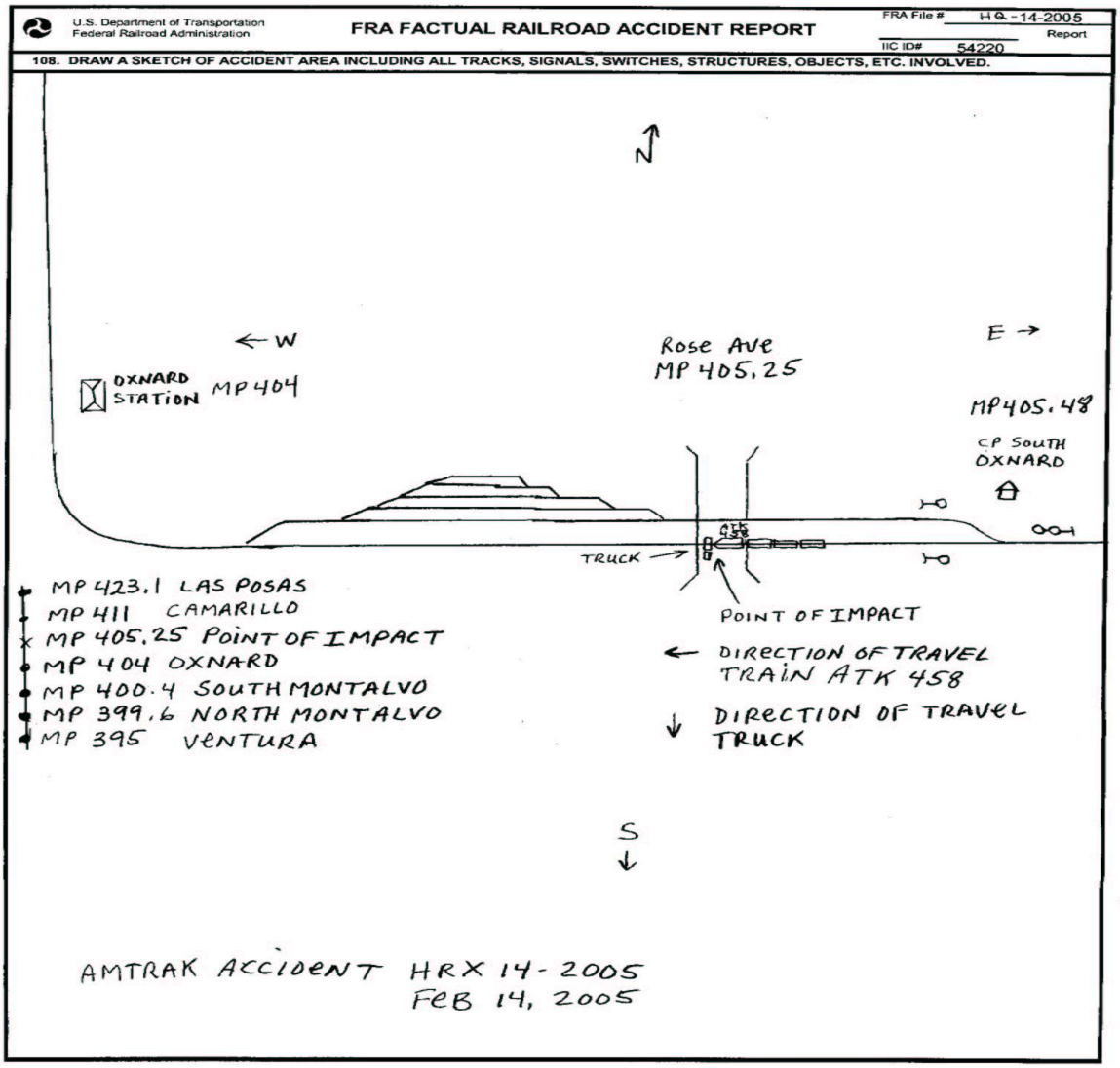
102. Highway Vehicle Property Damage (est. dollar damage)	103. Total Number of Highway-Rail Crossing Users (include driver)
0	1

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

106. Locomotive Headlight Illuminated? 1. Yes 2. No	Code	107. Locomotive Audible Warning Sounded? 1. Yes 2. No	Code
	1		1

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

HQ-14-2005.jpg



109. SYNOPSIS OF THE ACCIDENT

Synopsis of the Accident:

On Monday, February 14, 2005, at 4:30 p.m. PST, an Amtrak passenger train struck a tractor/semi-trailer at a highway-rail crossing in the City of Oxnard CA. The accident occurred at Rose Avenue, crossing no. DOT# 745854B, milepost 405.25 on UP's Los Angeles Area, Santa Barbara Subdivision.

The accident involved a northbound Amtrak train # 775 being pulled by lead locomotive no. 458 traveling at 79 mph, which impacted a tractor/semi-trailer carrying frozen strawberries and was stopped with the trailer across the tracks at the intersection of Rose Avenue and 5th St. No other vehicles were damaged in this incident.

Amtrak Timetable information states train # 775 originates at 12:00 p.m. in San Diego, CA., with final destination stop at 9:20 p.m. in Paso Robles, CA. Weather was partly cloudy skies prior to sunset and temperature was 65 degrees Fahrenheit.

Four Amtrak passengers complained of minor injuries; two were taken to area hospitals. The engineer sustained bruises on the upper part of both arms but did not request treatment. An unspecified next-day injury was claimed by the Assistant Conductor (February 15, 2005). The status of the injured passengers and Assistant Conductor are not known at this time. The driver of the tractor/semi-trailer was not injured.

The Rose Avenue accident site is a geographic north-south highway-rail grade crossing equipped with warning devices and pre-empted traffic signals at the adjacent intersection with 5th Street. Vehicular speed limit for Rose Avenue is 40 mph. Timetable track designation is north and south for railroad traffic but is geographic east-west at the site. The warning devices in service have light units mounted on cantilevers for northbound and southbound vehicle traffic. There are two warning light units with gate arms and gongs, each mounted on curbs and island sites for each direction of vehicle traffic. Rose Avenue has four southbound lanes and three northbound lanes approaching the grade crossing. Track structure approaching the grade crossing is tangent track for about four miles. It has a 0.20 percent descending grade for about a quarter mile to a 0.0 percent grade at the grade crossing/point of impact. A pre-empted circuit to the traffic signals comes off the break from the Crossing Relay (XR) operated by a Safetran Grade Crossing Predictor 3000D2 (GCP-3000) unit with a set warning time programed in the unit for 30 seconds. Traffic signals cue time allows seven seconds after warning device activation for a red signal to change to green to clear southbound vehicle traffic at Rose. At 15 seconds the traffic light changes from green to yellow to red clocked in 5 second intervals. The full cycle is 20 seconds. There is good visibility for both vehicle and trains in this area. Warning time down-loaded from the event recorder was 25 seconds. The investigation thus far concludes the warning systems operated as intended.

Damage estimates of the track and signal is $1,500; and equipment $8,574.00.

Probable cause: The driver of the tractor/semi-trailer stopped and failed to obey the warning signals and did not yield to the oncoming train.

110. NARRATIVE

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

Circumstances Prior to the Accident:

Amtrack passenger train symbol 775-14 originated in San Diego, with final destination at Paso Robles, CA. Train 775 was scheduled to arrive at Union Station in Los Angeles for a passenger stop and to make a crew change. After statutory rest time the conductor first went on duty at 1:55 pm and Engineer at 2:10 pm P.S.T. on February 14, 2005.

Locomotive number458 on train 775 was given an initial departure test in the Los Angeles Terminal Station at 3:00 am on February 14, 2005 and was symboled 566 earlier for a trip from Los Angeles to San Diego, CA. After a symbol change from 566 to 775 in San Diego, CA., the train returned to Los Angeles, CA. The crew then boarded train 775 and departed from Los Angeles Union Station on time at 2:55 pm.

The Accident:
Train 775
Train 775 was being operated at 79 mph approaching the accident area. The engineer had good visual sight of the crossing and saw that a large truck was fouling the track at the grade crossing. The engineer sounded the horn at the whistle sign when she saw a truck come to a rolling stop with the trailer end on the track. The engineer noticed the warning system lights were operating with the gates down. The engineer became aware of the impending collision ,1,000 feet in advance then placed the emergency brakes on the train and got behind the seat in a position with her hands behind her head and prepared for the impact.
Highway Vehicle
The semi-trailer truck with driver and had just been loaded with frozen strawberries en-route to a unknown destination and was headed geographical south on Rose Avenue to the accident area. The truck was stopped passed the marked limit lines at the grade crossing. The warning devices began operating and the truck pulled forward just as the warning gates had lowered on the truck. The truck continued slowly across the tracks, then stopped with the rear of the trailer on the tracks.
The train struck the trailer on the left side, separated it from the front cab and sent the commodities everywhere. The collision caused the passenger cars to separate from the lead locomotive and the train stopped 1/4 of a mile passed the accident site. The locomotive had extensive damage and had to be place at a nearby spur track.
As soon as the engineer found it was safe, she grabbed the radio and transmitted an emergency message to the dispatcher. Then she communicated with the conductor to see if every thing was "ok" and to check on passengers.
Emergency vehicles from the Oxnard Fire and Police Department arrived and started evacuation of passengers and treated injured at the scene. Four passengers complained about minor injuries, two were taken to a local hospital.
Analysis and Conclusions
Analysis
The driver of the truck was a 52 year old female. There were no other persons in the truck. The driver was employed by Action Carriers, Sioux Falls, South Dakota.
The highway-rail grade crossing is equipped with warning lights, gates, bell, and circuit for pre-emption of adjacent traffic signals.
Video showed the truck driver had stopped beyond the Double white limit line for a red traffic signal at the adjacent intersection of Rose Avenue and Fifth St. The warning system began to activate and the gates began to lower. The truck driver got confused with the activation and the cued green traffic signal and pulled her truck with the gate lowered on it. After 15 seconds minimum cue time for the clear out green traffic signal, the signal cycled to red and did not allow time for the large truck to clear the tracks. There is no advance warning sign for southbound vehicular traffic in advance of this grade crossing. Pavement markings are clearly visible. This area is maintain by the City of Oxnard.
The active warning system was tested after the accident and in the present of an FRA signal and train control inspector. The warning system function as intended.
The lead locomotive was equipped with headlight, the auxiliary lights, and the audible warning device required by Federal regulations.

The locomotive was also equipped with a speed indicator and an event recorder as required. The train engineer, and a crew member from a nearby work train were the only witness to the accident, and they have no information that could determine why the truck stopped on the tracks. The truck driver was issued a citation for failure to yield at a grade crossing.

In review of the Oxnard Police Report, the investigating officer issued a notice to arrear citation # 388567 for violation of California Vehicle Code 22451 (a)(1) Railroad crossing, failure to stop for signal device or closely approaching train.
Probable Cause & Contributing Factors
The accident occurred because the truck driver failed to stop before the marked white limit line on a paved street in advance of the highway-rail crossing at grade, and yield to an oncoming train. Driver confusion with near-by traffic signals minimum green clear out cue time may have been a contributing factor.

The FRA determined that the contributing cause was (M304). Highway user cited for violation of highway-rail grade crossing traffic laws.

Probable Cause (M302) Highway user inattentiveness.