

Federal Railroad Administration Office of Safety Headquarters Assigned Accident Investigation Report HQ-2005-16

> Union Pacific (UP) Fulton, Arkansas February 19, 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	Ε ΤΡ ΔΝ	NSPORT		)N									_							
FEDERAL RAILRO	AD AD	MINIST	RATI	ON	FRAFA	ACTUA	LRA	ILR	OAD A	CCI	DENT R	EPOR	Г	]	FRA Fi	le #	HQ-200	)5-16	<u>5</u>	
1.Name of Railroad On	1a. Alphabetic Code 1b.					1b. I	<ul> <li>Railroad Accident/Incident No.</li> </ul>													
UNION PACIFIC RA		UP						0205LK026												
2.Name of Railroad Ope		2a.	2a. Alphabetic Code 2					b. Railroad Accident/Incident												
N/A	-	N/A					N/A													
3.Name of Railroad Res	3a. Alphabetic Code   3						Railroad A	ccident	/Incic	lent No.										
Union Pacific RR Co	UP						0205LK026													
4. 0.3. DOI_AAK 01a	5. Date of Accident/Incident 6.						Time of Accident/Incident													
426309E									02		19		01:30: AM 🖌 PM							
7. Type of Accident/Inc		4. Side collision				7. Hwy-rail crossing 10. Explosi					n-detonation 13. Other									
(single entry in code	box)	2. Head o	on colli	sion	ion 5. Raking collision				8. RR grade crossing 11. Fire/violent rupture (descrit								1			
		3. Rear e	nd colli	ision	sion 6. Broken Train collision				9. Obstruction 12. Other in					pacts					07	
8. Cars Carrying	9. D	9. HAZMAT Cars				10. Cars Releasing HAZMAT				g 11. People Evacuated				12. Division						
56 fi 1	56 Damaged/Derailed			0 AAZMA			.1	0			Evacuated			0	North Little Rock			le		
13. Nearest City/Town					14. Milepost					15. S	State Abbr Code 1			16. County			ROCK			
		Fult	on		(to nearest to				68.45		N/A	AR			HEMPSTEAD					
17. Temperature (F)		18. Visit	oility	(sing	(single entry) Code   1			Weather (single er			entry) Cod			20. Tvp	ne of Track				Code	
(specify if minus)	(specify if minus) 1. Dawn			3.Dusk			1	1. Clear 3. Ra			in 5.Sleet			1. N		Aain 3. Siding			coue	
46	F	2.1	Day	4.D	4.Dark 2 2				udy 4. Fo	og	6.Snow 3			2. Y	ard 4. Industry				1	
21. Track Name/Number					22. FRA Track				Code 23. Annual Tr			k Density		24. Time Table Direction			ction Fact	(	Code	
	e Main	ain (gross tons in millions) 6						60	)	1. North 3. East					1					
							OPER	ATI	NG TRA	I AIN #	1									
25. Type of Equipment	t 1. F	Freight tra	ain	4. Wo	rk train 7.	Yard/swi	itching	A.	Spec. Mo	W Eq	uip. Code	26. Was	Equip	ment (	Code	27. 1	Train Nu	nber/	/Symbol	
Consist (single entr		Att					nded?													
3. Commuter train 6. Cut of cars 9. Maint/inspect.car 1 1. Yes 2. No 1 QAGN												GN 8								
28. Speed (recorded speed, if available) Code 30. Method(s) of Operation (enter code(s) that apply) 30a. Remotely Controlled L2-18 (Controlled L2-18) 30a. Remotely C0-18 (Controlled L2-18) 30a. Remotely 30a. Remotely C0-18 (Controlled L2-18) 30a. Remotely 30a. Rem														ive?						
R - Recorded	and t	raffic	n. Ot	her than ma	in track		U = Not aromotely controlled 1 = Remote control portable													
E - Esumated	able/ti	arain orders o. Positive train control $2 = $ Remote control tow							wer											
29. Trailing Tons (gross tonnage, d. Cab j.Track									nt control	p. O	ther (Specif	y in narra	tive) 3 = Remote control							
e. Traffic k. Dire								traffi	c control	I	Code(s	s)	remote control transmitter							
	12333 f. Interlocking 1. Yard limits e N/A N/A N/A N/A or remote control transmitter 0																			
31. Principal Car/Unit		a. Initial	and Nu	mber	b. Positic	on in Trair	1 c. l	Loade	ed(yes/no)	32.	If railroad e	mployee(	s) teste	ed for drug	g/alcoho	ol use,				
(1) First involved (derailed struck etc.		1				N/A		the approp	umber tha riate box.	t were	positive i	n		Alcohol	1	Drugs				
(defailed, silder, etc	anical								33	Was this c	oneist tra	enorti	ng passan	gars? (		0		0		
cause reported) 0					0			N	N/A	5.	5. was uns c	.0115151 11 41	isporu	ing passen	geis: (	1/1 <b>N</b> )			Ν	
34. Locomotive Units a. Head			Mid T	rain	Re	ar End		35. Car	s			Lo	ade		Emp	ty				
	_	End	b. Ma	nual	c. Remote	d. Manua	l c. Rei	mote				a. Fi	reight	b. Pass.	c. Frei	ight	d. Pass.	e. C	Caboose	
(1) Total in Train		5		0	0	0	0		(1) Total	l in Eq	uipment Co	nsist	96	0	3		0		0	
(2) Total Derailed		0		0	0	0	0		(2) Total	l Derai	iled		0	0	0	,	0		0	
36. Equipment Damage	e		3	37 Tra	ck Signal V	Vav			38 Prim	arv Ca	ause			39 Cont	 ributing	r Caus	se			
This Consist	1	15000		& S	& Structure Damage 0				Code M302					Code N/A						
Number of Crew Members									Length of Time on Duty											
0. Engineer/ 41. Firemen 4			42. Conductors 43. Brakemen					44. Engineer/Operator					45. Con	ductor						
N/A	Operators N/A 0			1			0		Hrs 5		Mi 30			Н	rs	5	Mi	30		
Casualties to: 46	6. Railro	ad Emplo	yees 4	7. Trai	n Passenger	s 48. C	48. Other		49. EOT Device?					50. Was EOT Device Properly Armed?					ned?	
Fatal		0			0		3		1. Yes 2. No 1						1. Yes 2. No 1					
					-				51. Caboose Occupied I			Crew?		1						
Nonfatal		N/A			0		1		1. Yes			2	2. No						2	
I						0	PERAT	ΓINC	G TRAIN	N #2										
52 Tupe of Equipment 1. Freight train 4. Work train 7. Yard/switching A Spec Mow Equipment Code 53 Was Equipment Code 54 Train Number/Granted																				
Consist (single entry	y) 2. P	assenger	train	5. Sing	gle car 8.	Light loc	o(s).	11.	Spec. MO	., եզւ	p. couc	Atten	ided?		Juc	57.1	. ani i vuli		, moor	
	3. C	Commuter	train	6. Cut	of cars 9.	Maint./in	spect.ca	r			N/A	1.	Yes	2. No N	I/A		N/2	4		
55. Speed (recorded sp	eed, if a	vailable)	Code	57.	Method(s)	of Operati	on (	enter	r code(s)	that a	apply)			57a. Remotely Controlled Locomotive?						
K - Recorded a. ATCS g. Aut F - Estimated 0 MDH N/A								atic block m.Special instructions n. Other than main track						0 = Not a remotely controlled 1 = Remote control portable						
E - Esumated 0	•	MILU	. 1/ / 1	b.	Auto train o	control h	. Curren	t of ti	rame					$1 = \kappa em$	ore con	uoi po	ortable			

DEPARTMEN FEDERAL RAI	T OF TRA	ANSPOI ADMINI:	RTATI STRAT	ION FION	FRA FA	ACTUAI	LRAILR	.OAD AC	CII	DENT I	REPO	ORT	F	RA File #	<u>HQ-200</u>	<u>5-16</u>	
56. Trailing Tons (gross tonnage, excluding power units)					. Auto traiı . Cab . Traffic	ain orders o. Positive train control t control p. Other (Specify in narrative) c control Code(s)					2 = Remo 3 = Remo transmit						
0					Interlocking	g 1.Y	ard limits		N/A	N/A 1	N/A 1	N/A N/A	remote c	N/A			
58. Principal Car/Unit a. Initial and Nu					b. Positi	ion in Train	c. Load	led(yes/no)	59.	If railroad	emplo	oyee(s) teste	ed for drug	/alcohol us	e,		
(1) First involved 0 (derailed struck etc)						0		N/A	the appropriate box.					Alcohol			
(2) Causing (if mechanical								NT / A	60 Was this consist transporting passengers? (V/N)							10/11	
cause reported)						0		N/A								N/A	
61. Locomotive Ur	nits	a. Head End b. Mar			Mid Train anual c. Remote		r End c. Remote	62. Cars	62. Cars			Loa a. Freight	ade b. Pass.	Em c. Freight	pty d. Pass.	e. Caboose	
(1) Total in T	tal in Train 0		0 0		0	0	(1) Total in	) Total in Equipment Consist			0	0	0	0	0		
(2) Total Dera	ailed	0	0 0		0	0	0	(2) Total Derailed				0	0	0	0	0	
63. Equipment Damage 6 This Consist 0					ack, Signal, Structure Da	Way, amage	0	65. Primar Code	i5. Primary Cause 66. Contributing Cause Code N/A Code					use	N/A		
		Num	ber of C	Crew Me	embers	•						Length of 7	Time on D	uty			
67. Engineer/	68. Fi	remen		69. Co	onductors	70. Bra	kemen	71. Engin	71. Engineer/Operator 72. Conductor						0	Mi o	
Operators 0	Operators 0 0				0		0		Hrs	0	Mi	0		Hrs	0	0	
Casualties to:	73. Rail	Iroad Em	oloyees	74. Tra	in Passenge	rs 75. Oth	er	1  Ves 2  No  1  N/A					77. Was 1	Armed?			
Fatal		0			0		0	78. Caboo	ise O	ccupied b	 v Crew	1N/A /?		IN/A			
Nonfatal		0			0		0		1. Yes 2. No								
	olved						Rail I	Equipment	Involved	ł							
79. Type C. Truc	icle	Code	Code 83. Equipment 3. Train (standing) 6. Light Loco(s) (moving)														
A. Auto D. Pick		1.Train(units pulling)     4.Car(s) (moving)     7.Light(s) (standing)       2.Train(units pushing)     5.Car(s) (standing)     8.Other (spacific in parameter)								g)	1						
80. Vehicle Speed	ical)	Code 84. Position of Car Unit in Train															
(est. MPH at	4.West	3	1														
82. Position	а ·	Code 85. Circumstance 1. Rail Equipment Struck Highway User								Code							
<ol> <li>statled on Crossing 2.Stopped on Crossing 3.Moving Over Crossin</li> <li>Trapped</li> </ol>							2	2. Rail Ec	luibu	ient Struc	k by H	ighway Use	er			1	
86a. Was the high		Code	86b. Was t	here a	a hazardo	us mat	erials releas	e by			Code						
in the impact	terials?	4 Naithar		1 2	1. High	way I	User 2.	Rail E	quipment	3. Both	4. Neither	r	4				
1. Highway User       2. Rail Equipment       3. Both       4. Neither       2       1. Highway User       2. Rail Equipment       5. Both       4. Neither       4         86c. State here the name and quantity of the hazardous materials released, if any.       2       1. Highway User       2. Rail Equipment       5. Both       4. Neither       4																	
							N/A										
87. Type of 1.0 Crossing 2.0 Warning 2.6	bucks 10. signs 11.	.Flagged by .Other (spec	crew . in narr.)	88. S (S	Signaled C See instru	ctions	g Warning for codes)	Code	89. Whis 1. Ye 2. No	tle Ban s	Code						
Code(s)	e(s) 07 08 N/A			A	N/A	N/A	N/A	N/A						3. Un	known	2	
90. Location of Wa	arning		1	<u> </u>	Code	91. Crossir	Crossing Warning Interconnected Code 92. Crossing Illuminated by Street							Code			
1. Both Sides	with I	Highway Sig Ves	gnals		Lights o			pecial Ligl	hts								
3. Opposite Side of Vehicle Approach 1							No	3				2. No					
93. Driver's 94. Driver's Gender Code 9					iver Drove I	3. Behind or ir	ain Code	ain Code 96. Driver							Code		
Age			an	d Struck or	was Struck	by Second 7	Frain	1. Drove around or thru the Gate         4. 9           2. Steamed and then Presended         5. 6						Stopped on Crossing			
37 2. Female 1				1.	Yes 2	2 3. Did not Stop narrative)							4				
97. Driver Passed	cured by (	(primary obstruction)									Code						
1. Yes 2. No 3.	cie Unknown	2		1. Peri 2. Stai	nanent Strue iding Railro	cture ad Equipme	ent 4. Topography 6. Highway Vehicle 8. Not obstructed									8	
101. Casulties to Highway-Rail Killed Injured 99. D						99. Driver	r Was Code 100. Was Driver in the Vehicle?							Code			
Crossing Users Killed					mjurou	1. Killed	2.Injured 3.	Uninjured	1 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.				S Number (	1 ng Usar-			
3 1 102. H							dollar damage) 2500   105. Total Number of Highway-Rail (include driver)							Kan Cross	ng Users		
104. Locomotive A	Auxiliary Li	ghts?	_				Code	105. Locoi	notiv	e Auxilia	ry Ligł	nts Operatio	nal?			Code	
1. Yes	Jeadlight III	2. I	No 12				1	1         1. Yes         2. No           Code         107 Locomotive Audible Warning Sounded?							1		
1. Yes 2. No							Lode 1	1. Yes 2. No							Code		
1. 1 55							1.	1. 100 2. 110									





# 109. SYNOPSIS OF THE ACCIDENT

A northbound UP freight train collided with an ambulance at a highway-rail grade crossing on February 19, 2005, at approximately 1:30 PM. The accident occurred near Fulton, AR at MP 468.45, on the UP Little Rock Subdivision. The crossing is identified as DOT # 426309E in the FRA grade crossing inventory.

The motor vehicle driver and two passengers were killed. A third passenger, who was a patient being transported by the ambulance, was taken to an area hospital with unknown injuries. There were no injuries to the train crew. The leading locomotive sustained slight damage of about \$5,000 and there was no derailment.

At the time of the accident it was daylight and raining. The temperature was 46 F.

According to the Arkansas State Police Collision report, the accident was caused by the failure of the vehicle operator to yield the right of way to the train.

# 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 the UP QAGNL-18 included a locomotive engineer and a conductor. They first went on duty at 8:00 A.M., CDT, February 19, 2005, at the Longview, TX yard after receiving a statutory off duty period.

Their assigned freight train consisted of five locomotives, 95 loaded, and 3 empty cars of several varieties. It was 6,126 feet long, and weighed 12,333 tons. The train originated in Angleton, TX and was destined to Little Rock, AR. The train received an initial terminal train air brake test prior to departure on February 18, 2005. The EOT device was certified to be armed and working also at the time of departure.

As the northbound train approached the accident area, the locomotive engineer, seated at the controls, and the conductor were in the cab in the leading locomotive.

In this area of the railroad there is 1.5 miles of tangent track to the point of the accident followed by a .5 degree curve to the left for approximately 2,500 feet following the point of the accident. There is a .46 percent ascending grade. County Road 189 curves to the right slightly several hundred feet before it becomes perpendicular to the track approximately fifty feet east of and prior to the point of the accident. It intersects with U.S. Highway 67 immediately after crossing the tracks at the point of the accident. Traveling west to east on the county road the grade is practically level. After crossing the tracks, there is a substantial descending grade to the point that the county road runs into Highway 67.

The railroad timetable direction of the train was north. Timetable directions are used throughout this report.

#### The Accident

# Train UP QAGNL - 18 North

The train was being operated at 48 mph approaching the accident area. The train engineer said he observed the emergency vehicle approaching the crossing at mile post 468.8. He immediately initiated an emergency air brake application when he determined the ambulance was not going to stop short of the crossing. The train was traveling at 48 mph at the time of the collision as recorded by the event recorder on the lead locomotive. The maximum authorized speed for the train was 60 mph as designated in the current UP timetable.

#### **Highway Vehicle**

The vehicle involved was a 2003 Ford ambulance. It was traveling west to east. The engineer said it appeared the vehicle was not going to stop, but did stop with the front of the vehicle fouling the track. A deputy sheriff who had just helped put a patient into the ambulance, witnessed the collision. He stated the driver received clearance to take the patient to Texarkana instead of Hope and backed out of the drive at the patient's residence onto County Road 189. He stated he heard the train horn as the ambulance proceeded the several hundred feet to the crossing. He said the ambulance driver hit the brakes just as the vehicle entered the crossing and was stopped when struck by the train.

The train struck the vehicle at the front of the vehicle on the passenger side. The impact knocked the vehicle approximately fifty feet north and eight feet west of the crossing. The train came to a stop approximately 4,000 feet north of the crossing. The vehicle driver and two occupants were ejected from the vehicle. The driver and one occupant ejected died at the scene. The other ejected occupant died a short time later at the hospital. The fourth vehicle occupant, the patient being

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transported, remained in the vehicle and was taken by relatives to the hospital by personal vehicle.

#### Analysis and Conclusions

Analysis

The driver of the ambulance was a 37 year old male. The other three passengers were two males, both 23, and a female 68 years old. The female passenger was a patient being transported by the ambulance and had just been placed in the vehicle prior to the collision. The two male passengers were attending to the patient in the back of the ambulance at the time of the collision. A Hempstead County Deputy Coroner performed toxicological testing on the remains of the driver, and the results were negative.

The highway-rail grade crossing has cross bucks signs and stop signs at the crossing. The road being traveled on by the vehicle was a gravel/dirt road. There were trees and vegetation along the railroad right of way on a fence line until approximately four hundred feet prior to the crossing. After that point there was no vegetation to obscure the view of the oncoming train.

The railroad whistle post was in place approximately 1,350 south of the crossing. The horn was sounded from the whistle board until the point of collision as witnessed by several individuals besides the train crew. A playback of onboard video equipment documenting the incident was observed by an FRA inspector. It also verified the locomotive horn was sounded.

An Arkansas State Police officer investigated the accident and took statements from several witnesses and the locomotive engineer. The officer stated that he conducted an inspection of the train's lights, bell, and horn and that all were found to be operational. The leading locomotive was equipped with a headlight, the auxiliary lights, and the audible warning device required by federal regulations.

In addition to onboard video equipment, the locomotive was equipped with a speed indicator and an event recorder as required. The relevant event recorder data was downloaded and analyzed. The analysis showed the engineer was in compliance with applicable railroad operating rules.

### Conclusions

The railroad was in full compliance with their own, and all applicable Federal standards. The various witness statements indicated they had no information as to why the motor vehicle failed to stop before it was on the crossing. The driver had been in radio conversation to get clearance to take the patient to Texarkana instead of Hope. The ambulance had traveled only a short distance with the patient onboard. The patient's daughter was seen to be running after the vehicle. Each of these events could have been a distraction for the driver.

# Probable Cause

After analysis of the physical evidence, the investigating officer determined only that the driver of the motor vehicle failed to yield the right of way to the train. The FRA concurs with the findings