

Federal Railroad Administration Office of Safety Headquarters Assigned Accident Investigation Report HQ-2008-87

> Union Pacific (UP) Spring, TX November 13, 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.

r																		
DEPARTMENT FEDERAL RAILF	OF TRA ROAD A	ANSPORT DMINIST	TATIO RATI	ON ON	FRAFA	ACTU	AL RA	ILF	ROAD A	CCII	DENT R	EPORT	Γ	I	FRA Fi	le #	<u>HQ-200</u>	8-87
1.Name of Railroad Operating Train #1									1a. Alphabetic Code				1b. 1	1b. Railroad Accident/Incident No.				
Union Pacific RR Co. [UP] 2 Name of Railroad Operating Train #2									Alababatia	UP			21- 1	1108HO021				
N/A									. Alphabetic	N/A			20. г	N/A				
3.Name of Railroad (N/A	3a	. Alphabetic	Code N/A			3b. 1	3b. Railroad Accident/Incident No. N/A											
4.Name of Railroad I	4a	. Alphabetic	c Code			4b. 1	4b. Railroad Accident/Incident No.											
Union Pacific RR (Co. [UP]	ificatio	n Nur	nhar			6	Data of Acc	UP ident/	Incident		7 1	1108HO021 7. Time of Accident/Incident				
5. 0.5. DOI_AAR C	M	onth 11	Da	y 13 Ye	ar 2008		07:10:00 🗸 AM 🗌 P				PM							
8. Type of Accident/Indicent 1. Derailment 4. Side collision									7. Hwy-rail crossing 10. Explosion-detonation 13. Other							Code		
(single entry in code box) 2. Head on collision 5. Raking collision								8. RR grade crossing 11. Fire/violent					t rupt	narrative) 12				
9. Cars Carrying		3. Rear er 10. HAZ	nd coll MAT (ision Cars	6. Broke	$\frac{1}{1}$	Cars Re	leasi			12. Other impact				13. Div	ision		
HAZMAT	0	Damaged	0	HA	ZMAT	loubli	0		Evacuated			0			Houston			
14. Nearest City/Tow	<u> </u>					15. Milepost			16. State		<i>a</i> 1	17. County						
- · · · · · · · · · · · · · · · · · · ·		Spring				(to nearest t) Abbr 7 N/A		TX		HARRIS			IS		
18. Temperature (F)		19. Visit	oility	(sing	gle entry)	Code 20. V			Veather (single (entry) Code			21. Type of Track				Code
(specify if minus) E	1.1	Dawn	3.D	usk		1	1. Cle	ear 3. Ra	in S	5.Sleet			1. Main 3. Si			ng	1 1
60 22 T 1 N 1) Г	Ζ.	Day	4.1	Jark		2 A T	2. Clo	oudy 4. Fo	y 4. Fog 6.Snow 4			2. Yard 4. In			stry		
22. Track Name/Nu	mber					23. FR	FRA Track Code 24. Annual Track Density Class (1-9, X), (gross tons in							1. North 3. East				Code
			ma	un I					4	n	tillions)	25.	2		2. South	h 4.	West	2
							OPER	RAT	ING TRA	IN #1	[
26. Type of Equipme	ent 1.	. Freight tra	un tuoin	4. Wo	ork train 7	. Yard/sv	vitching	А	. Spec. MoV	W Equ	ip. Code	27. Was Atter	Equip ded?	ment C	ode	28. 1	Frain Nur	nber/Symbol
Consist (single entry) 2. Passenger train 5. Single car 8. Light loco(s). 3. Commuter train 6. Cut of care 9. Maint /increast care											A	1.	Yes	2. No 1 N/A				
29. Speed (recorded	speed, if	available)	Code	31.	Method(s)	of Opera	tion	(ente	er code(s) i	that a	pply)			31a. Rem	otely C	ontro	lled Loco	motive?
R - Recorded a. ATCS g. Auton									block	m.Spe	cial instruc	tions		0 = Not a remotely controlled				
E - Estimated 0 MPH N/A b. Auto train control h. Current									traffic	o. Pos	sitive train o	control		1 = Remo 2 = Remo	ote cont	rol po rol to	ortable	
30. Trailing Tons (gross tonnage, d. Cab i. Track									nt control	p. Otł	ner (Specify	in narra	tive)	3 = Rem	ote cont	trol	WCI	
excluding power units) e. Traffic k. Direc									ic control		Code(s)		transmi	tter - m	ore th	nan one	
		N/A		f.	. Interlocking	3	l.Yard lii	mits		g	N/A N/.	A N/A	N/A	Temote	Jointion	u ansi	lintter	0
32. Principal Car/Unit a. Initial and Number b. Position in Train c. Loaded(yes/no) 33. If railroad employee(s) tested for drug/alcohol use,										, Alaohal	Druge							
(1) First involved (derailed, struck, a	5		0			N/A		the appropri	riate box.	, were	positive			2	N/A			
(2) Causing (<i>if mechanical</i>						0			N/A	34.	. Was this c	onsist trar	isporti	ing passen	gers? (Y	(/N)		
cause reported)					Train	F	lear End		36 Care				Lo	aded		Emp	oty	IV/A
		End	b. Ma	nual	c. Remote	d. Manu	al c. Re	mote	50. Cars	,		a. Fr	reight	b. Pass.	c. Frei	ght	d. Pass.	e. Caboose
(1) Total in Train	n	0		0	0	0	0)	(1) Total	in Equ	ipment Cor	nsist	0	0	0		0	0
(2) Total Deraile	d	0		0	0	0	C)	(2) Total	Derail	ed		0	0	0		0	0
37. Equipment Dama	age		3	38. Tra	ick, Signal, V	Way,	¢0.00		39. Prima	ary Cat	ıse			40. Cont	ributing	Cau	se	
This Consist		\$0.00		& Stru	acture Dama	ge	\$0.00)	Code			H402	1 0	Code			H	1212
41 Engineer/	42 Fin	remen		rew Members					Le 45 Engineer/Operator			Leng	th of	46. Conductor				
Operators 0	.2.11	0			0	0			Hrs Mi 0			Mi 0			Н	rs	0	Mi 0
Casualties to:	47. Railı	road Emplo	yees 4	8. Tra	0 0 in Passengers 49 Other				50. EOT Device?					51. Was EOT Device Properly Armee				Armed?
Fatal		0	-		0	0							1. Yes 2. No N/A					
ı aıdı							0		52. Caboose Occupied by Crew?								1	
Nonfatal	tal 0 0 0						0		1. Yes 2. No N/A							N/A		
						()PERA	TIN	G TRAIN	#2								
53. Type of Equipme	ent 1.	Freight tra	in train	4. Wo	ork train $\overline{7}$.	Yard/sv	vitching	А	. Spec. MoV	V Equi	p. Code	54. Was I	Equip	ment C	ode	55. T	Train Nun	nber/Symbol
Consist (single en	<i>utry</i>) 2. 3.	Commuter	train	5. Sin 6. Cm	t of cars 9	Maint /	nspect ca	ur			1	Atten	ueu? Yes	x 2 No 1 MHOSH-13				
56. Speed (recorded	speed, if	available)	Code	58.	. Method(s)	of Opera	tion	(ente	er code(s) i	that a	pply)	1.		58a. Rem	otely C	ontro	lled Loco	motive?
R - Recorded	_ , j	í	_	a.	ATCS		g. Auton	natic	block	m.Spe	cial instruc	tions		0 = Not a remotely controlled				
E - Estimated	29	MPH	R	b	. Auto train	control	h. Currei	nt of	trattic	n. Oth	er than mai	n track		1 = Rem	ote cont	trol p	ortable	

DEPARTMENT FEDERAL RAILF	OF TRA ROAD AI	NSPOR DMINIS	FATIO FRATI	ON ION	FRA FA	CTUAL	RAILR	OAD AC	CIDENT REP	ORT	F	RA File	e# <u>HQ-200</u>	<u>8-87</u>		
57. Trailing Tons (gross tonnage, excluding power units) 1678					c. Auto train stop i. Time table/tr. d. Cab j.Track warrant e. Traffic k. Direct traffic				b. Positive train contr b. Other (<i>Specify in r</i> Code(s)	ol arrative)	2 = Remo 3 = Remo transmit remote c					
		10/0		f.	Interlocking	1.Y	ard limits		e N/A N/A	N/A N/A				0		
59. Principal Car/Unit a. Initial and Nut			lumber	b. Positio	n in Train	c. Load	ed(yes/no)	60. If railroad emp	loyee(s) tes er that were	ted for drug/alcohol use,			Druge			
(derailed, struck, etc) UP 9630)	1		N	J/A	the appropriate	box.	N/A			N/A			
(2) Causing (if mechanical cause reported) 0				0]	N/A 61. Was this consist transpo			ting passengers? (Y/N)			N				
62. Locomotive Units a. Head End b. Mar			Mid T anual	rain c. Remote	Rear 1. Manual	End c. Remote	63. Cars		Lo a. Freight	aded b. Pass.	l c. Freig	Empty tht d. Pass.	e. Caboose			
(1) Total in Train		2		0	0	0 0		(1) Total in Equipment Consist		8	0	20	0	0		
(2) Total Deraile	ed	0		0 0		0	0	(2) Total D	Derailed 0		0	0	0	0		
64. Equipment Dama	age		.	65. Tra	5. Track, Signal, Way,			66. Primary Cause			67. Contributing Cause					
This Consist \$0.00			& S rew Me	& Structure Damage \$0.00 w Members				Lode N/A				Code N/A				
68. Engineer/	69. Fire	emen		70. Co	onductors	71. Brak	emen	72. Engin	eer/Operator		73. Conductor					
Operators 1		0			1		0		Hrs 4 Mi 10			Hrs 4 Mi				
Casualties to:	74. Railro	oad Empl	oyees ′	75. Tra	in Passengers	76. Othe	76. Other		Device?	1	78. Was EOT Device Properly			Armed?		
Fatal		0			0		0		1. Yes 2. No 1			1. Yes 2. No				
Nonfatal		0			0		0		1. Yes 2. No				I			
						OI	PERATIN	G TRAIN	#3					·		
80. Type of Equipme Consist <i>(single en</i>	80. Type of Equipment 1. Freight train 4. Work train 7. Yard/switching A. Consist (single entry) 2. Passenger train 5. Single car 8. Light loco(s). 2 Construction 5. Single car 8. Light loco(s).									Spec. MoW Equip. Code 81. Was Equipment Code 82. Train Number/Symbol Attended? 1. Yes 2. No N/A N/A						
83. Speed (recorded	speed, if a	vailable)	Code	e 85.	Method(s) of	Operation	(enter	r code(s) th	nat apply)		85a. Remo	otely Cor	ntrolled Loco	motive?		
R - Recorded	N/A		0	a.	ATCS	g. /	Automatic b	olock n	 Special instructions Other than main tra 	ck	0 = Not a	remotely	y controlled			
E - Estimated	IN/A	MPH	0	b. - c.	Auto train co Auto train	stop i. T	urrent of ti ime table/ti	an orders	o. Positive train contr	ol	1 = Remo 2 = Remo	te contro	ol tower			
84. Irailing Ions excluding powe	(gross ton r units)	nage,		d.	Cab Traffic	j.Ti k J	rack warran Direct traffi	t control I	D. Other (Specify in r Code(s)	arrative)	3 = Remo transmit	ote contro ter - mor	ol re than one			
N/A					Interlocking	1.Y	ard limits	·	N/A N/A N/A	N/A N/A	remote c	ontrol tr	ansmitter	N/A		
86. Principal Car/Un	and N	lumber	mber b. Position in Train c. Load				ded(yes/no) 87. If railroad employee(s) tested for drug/alcohol use,									
(1) First involved 0				()		N/A	enter the numb	er that were	positive i	n	Alcohol	Drugs			
(aerailea, struck, (2) Causing (if me	etc) chanical	!						88. Was this consist transpor			ing passen	gers? (Y	N/A (/N)	N/A		
cause reported	l)		0)		N/A		or dunsport	ing pubben		(11)	N/A		
89. Locomotive Uni	its	a. Head End	h M	Mid T	rain	Rear 1. Manual	End	90. Cars		Lo a. Freight	aded b. Pass.	c. Freig	Empty ht d. Pass.	e. Caboose		
(1) Total in Train	n	0		0	0	0	0	(1) Total in	Equipment Consist	0	0	0	0	0		
(2) Total Deraile	ed	0		0	0	0	0	(2) Total E	erailed	0	0	0	0	0		
91. Equipment Dama	age		<u> </u>	92. Tra	ck, Signal, W	⁷ ay,		93. Primar	y Cause Code		94. Conti	l ributing (Cause			
This Consist		& St	& Structure Damage \$0.00				N/A Code N/A									
95 Engineer/	96 Fire	Numbe	er of Ci	197. C	w Members				eer/Operator	Length of	Time on Duty					
Operators 0	90. Phe	0			0 98. Braken		0	yyı Elişin	Hrs 0 M	i 0	100. Conductor Hrs 0 Mi					
Casualties to:	101. Railroad Employees			102.	Train	103. Oth	103. Other		104. EOT 105. Was EOT De					у		
Fatal		0			0		0		1. Yes 2. No N/A 1. Yes 2. No							
Nonfatal 0				0		0	106. Cabo	106. Caboose Occupied by Crew? 1. Yes 2. No					N/A			
	1	Highw	ay Us	er Inv	olved	1			Rail	Equipmen	t Involved	1				
107.	Frailer -				Motor V-1	1.	Code	111. Equipment								
A. Auto D. Pick-Up Truck G. School Bus K. Pedestrian							N/A	1.Train(units pulling) 4.Car(s)(moving) 7.Light(s) (standing)								
B. Iruck E. Van 108. Vehicle Speed	vi. Othe	geographic	ırratıve) al)	Code	2. Iram(<i>units pushing</i>) 5. Car(s) (<i>standing</i>) 8. Other (<i>specify in narrative</i>) 10/A 112. Position of Car Unit in											
(est. MPH at impact) N/A 1.North 2.South 3.East 4.West N/A								0								

DEPARTMENT OF TRANSPORTATION FRA FACTUAL RAILROAD ACCIDENT REPORT FRA File # HQ-2008-87 FEDERAL RAILROAD ADMINISTRATION FRA FACTUAL RAILROAD ACCIDENT REPORT FRA File # HQ-2008-87												<u>.87</u>	
110. Position	110. Position Code 113. Circumstance												Code
1. Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing 1. Rail Equipment Struck Highway User 4. Trapped N/A												N/A	
114a. Was the	114a. Was the highway user and/or rail equipment involved Code 114b. Was there a hazardous materials release												Code
in the impact transporting hazardous materials?												N/A	
1. Highway User 2. Rail Equipment 3. Both 4. Neither 1977 1. Highway Oser 2. Rail Equipment 5. Both 4. Neither													
114c. State here the name and quantity of the hazardous materials released, if any. N/A													
115. Type 1.Gates 4 Wig Wags 7. Crossbucks 10. Flagged by crew 116. Signaled Crossing Code 117 Whistle Ban												Code	
Crossing 2.Cantilever FLS 5.Hwy. traffic signals 8.Stop signs 10.the geo of control of the signal of the si													
Code(s)	N/A	N/A	N/A N/A N/A N/A N/A 3. Unknown							3. Unknown	N/A		
118. Location of Warning Code 119. Crossing Warning Code 120. Crossing Illuminated by Street 1. Both Sides with Highway Signals Lights or Special Lights											Code		
2. Side of					1. Yes			1. Y	es				
3. Opposit	e Side of Vehic	ele Appro	ach		N/A		2. No 3. Unknown N/A 2. No 3. Unknown					N/A	
121.	122. Driver's	Gender	Code	123.	Driver Drov	ve Behind o	or in Front of	Code	124. Driv	er			Code
Age	1. Male				and Struck o	r was Struc	k by Second	Frain	1. Drov	e around or thr	the Gate	4. Stopped on Crossing	
0	0 2. Female 1. Yes 2. No 3. Unknown 2. Stopped and then Proceeded 5. Other (specify in narrative) 0 N/A 3. Did not Stop narrative)									5. Other (specify in narrative)	N/A		
125. Driver Pa	ssed	Cod	e 12	6. Viev	w of Track C	bscured by	(primary ob	struction)	-				Code
Highway V	ehicle			1. Pe	ermanent Str	ucture	Passi	ng Train 5. '	Vegetation	7. Other	(specify in	narrative)	1
1. Yes 2. No	3. Unknown	N/	4	2. St	tanding Railı	oad Equipr	ment 4. Topo	graphy 6. l	Highway Veh	cle 8. Not ob	structed		N/A
Casualties to: Killed Injured 127. I							ver	Uniniverd	Cod	e 128. Wa	s Driver in t	he Vehicle?	Code
						1. Kille 130. Hig	hway Vehicle	Property Damage		131. To	1. Yes 2. No 131. Total Number of Highway-Rail Crossi		
129. Highway-Rail Crossing Users 0 0						(est.	(est. dollar damage) 0 (include d					0	
132. Locomotive Auxiliary Lights? Code 133. Locomotive Auxiliary Lights Operational?												Code	
1. Yes 2. No							N/A 1. Yes 2. No				N/A		
134. Locomot	ive Headlight I	lluminat	ed?				Code	135. Locor	notive Audibl	e Warning Sour	nded?		Code
1. Y	es	2.	No				N/A	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 November 13, 2008 at 7:10 a. m. CST, Union Pacific Railroad (UP), northbound freight train MHOSH-13 collided with a standing UP hi-rail vehicle at milepost 218.7, at a recorded speed of 29 mph. The signal maintainer operating the hi-rail vehicle occupied the Main Track without authority. The collision occurred 20 feet south of Rankin Road crossing in Spring, Texas, on the Palestine Subdivision, Houston Service Unit.

There were no reportable injuries to the train crew or signal maintainer. The hi-rail vehicle was totally destroyed and had an estimated value of \$75,000.00. The lead locomotive sustained minor damage.

The accident was caused by the signal maintainer improperly repeating Track and Time limits of Authority to the train dispatcher. Also a factor was the train dispatcher's failure to listen and correct the signal maintainer's incorrect read back.

At the time of the collision, it was dawn, heavy fog, with 5 mph winds from the northeast. The temperature was 60° F.

Probable Cause:

The collision occurred because the train dispatcher failed to listen to the job briefing from the signal maintainer requesting limits. The signal maintainer failed to listen to the repeat on the limits from the third shift train dispatcher was going to grant. The train dispatcher failed to listen to the improper limits repeated by the signal maintainer before granting Authority to occupy the Main Track with Track and Time.

138. NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

HI-RAIL VEHICLE:

After receiving more than the required statutory off duty rest period, the Union Pacific (UP) signal maintainer went on duty at 4 a.m. CST on November 13, 2008. The signal maintainer departed his residence and proceeded to Rankin Road, milepost 218.7 arriving at 5:15 a.m. The signal maintainer contacted the UP Spring Dispatcher Position DS 42 via radio to obtain Track and Time authority to place his hi-rail vehicle on the Main Track for the purposes of performing repairs to a wayside signal. The method of operation is Centralized Traffic Control (CTC).

The third shift train dispatcher DS 42 went on duty at the UP Spring Dispatch Center at 10:20 p.m. on November 12, 2008. UP Train dispatcher DS 42 received more than the required statutory off duty rest period. At 5:23 a.m., the signal maintainer contacted the train dispatcher via radio to request Track and Time from location CPH 215 switch to CPH 225 switch. The train dispatcher asked the signal maintainer during the job briefing if he was requesting Track and Time from CPH 220 to CPH 225. The signal maintainer stated that was correct. The train dispatcher issued Track and Time permit number 4019 on Main Track Number One from CPH 220 switch to CPH 225 switch. The signal maintainer repeated Track and Time permit number 4019 to affirm limits of authority from CPH 215 Main Track One switch, to CPH 225 Main Track One switch, blocked until 6:00 a.m. At 5:25 a.m. the train dispatcher granted Track and Time permit number 4019 from CPH 220 switch, to CPH 225 switch. UP Train dispatcher DS-42 conducted a transfer job briefing with his relief, the first shift dispatcher, and went off duty at 6:40 a.m.

Shortly after receiving Track and Time Authority, the signal maintainer placed his hi-rail vehicle on Main Track One at Rankin Road crossing, milepost 218.7, which was outside the limits of his authorized Track and Time authority. The signal maintainer operated his hi-rail vehicle to CPH 221.6 on Main Track One and effected repairs to a wayside signal. After completing repairs the signal maintainer operated his hi-rail vehicle south on Main Track One to MP 218.7. At 6:45 a.m. the signal maintainer stopped his hi-rail vehicle south of Rankin Road crossing to let highway vehicular traffic clear up. The track that crosses Rankin Road is tangent and essentially flat in both directions. Visibility from the railroad right-of-way in both directions approaching Rankin Road is about one mile north and south on a clear day.

UP TRAIN MHOSH-13:

The train crew of UP Train MHOSH-13 consisted of a locomotive engineer and conductor. Both crewmembers went on duty on November 13, 2008 at 3 a.m. at UP Englewood Yard in Houston, TX. Both crewmembers received more than the required statutory off duty rest period. The train crew was transported by limousine from Englewood Yard to Settegast Yard and arrived at their train at approximately 5:15 a.m. UP Train MHOSH-13 consisted of two locomotives, eight loads, and 20 empty freight cars. At 6 a.m. UP Yard Mechanical forces completed a Class I brake test on UP Train MHOSH-13. The railroad timetable direction of the train was north. Timetable directions are used throughout this report.

At 6:07 a.m. UP Train MHOSH-13 departed Settegast Yard en route to Palestine, TX. The train crew passed yard limits at 6:30 a.m. on Main Track Two. After arriving at Control Point (CP) 220, the train crew had a diversion clear signal indication at 7:04 a.m. and proceeded to Main Track One with a maximum authorized speed through the turn at 30 mph. After the train cleared the turnout from Main Track Two to Main Track One at less than 30 mph, the engineer began to increase the train speed to 41 mph. The engineer was seated at the control stand on the right side of the locomotive. The conductor was seated on the fireman's side looking out the front window. Approaching the accident site the track is tangent and essentially flat. Both crew members observed a headlight on the Main Track at which time the engineer placed the train in emergency. The train was approximately 2,400 feet from the standing hi-rail vehicle when the engineer placed the train in emergency.

THE ACCIDENT

HI-RAIL VEHICLE:

UP Train MHOSH-13 collided with the standing hi-rail vehicle at 7:10 a.m. at a recorded speed of 29 mph. The hi-rail vehicle was standing outside the legal authorized limits of Track and Time authority at the time of collision. The signal maintainer's view was limited due to dense fog. Visibility at the time of the collision was approximately 1 tenth of a mile. The maximum authorized speed for this segment of track is 60 mph for freight trains and 70 mph for passenger trains, as designated in the current UP Houston Area Timetable No. 4. When the signal maintainer noticed the headlight of the approaching train he exited the vehicle and got clear. The train struck the hi-rail vehicle head on and moved the vehicle approximately 240 feet north of Rankin Road.

UP TRAIN MHOSH-13:

UP Train MHOSH-13 was moving at 41 mph approximately 2,400 feet south of the point of the impact. The train crew stated they noticed the headlights from the hi-rail vehicle about one half mile in the distance, but initially thought it was a highway motor vehicle near Rankin Road crossing. Due to the heavy fog, the train crew could not clearly distinguish the hi-rail vehicle or assess the impending collision until seconds later. Once the engineer and conductor realized the hi-rail vehicle was facing them and on the Main Track the engineer initiated an emergency application of the train air brakes. The train was traveling at a recorded speed of 29 mph at the point of impact. The maximum authorized speed for this segment of track is 60 mph. The train came to a stop approximately 240 feet north of Rankin Road.

ANALYSIS AND CONCLUSIONS

ANALYSIS-TOXICOLOGICAL TESTING:

Post accident toxicological testing performed under railroad authority was negative for the signal maintainer and third trick train dispatcher. No toxicological testing was performed on the locomotive engineer or conductor assigned to UP Train MHOSH-13 or the first trick train dispatcher.

CONCLUSION:

Intoxication was not a factor.

ANALYSIS-FATIGUE:

FRA concluded fatigue was not probable cause for the following employees; first trick train dispatcher, locomotive engineer, or the signal maintainer.

FRA concluded fatigue was probable for cause for the following employees, first trick train dispatcher and conductor assigned to UP Train MHOSH-13.

ANALYSIS-DISPATCHER

Voice recording of third trick train dispatcher issuance of Track and Time Authority to the signal maintainer revealed the train dispatcher failed to listen to the job briefing of requested Track and Time from the signal maintainer. The UP Train dispatcher failed to listen to the repeat of Track and Time from the signal maintainer before issuing Authority. Track and Time documentation obtained from the dispatching center and the signal maintainer validates the findings.

Analysis of training records obtained from Spring Dispatching Center indicate that the third trick train dispatcher was trained and qualified in the proper procedures on issuance of Track and Time Authority and radio procedures.

CONCLUSION:

The Third trick train dispatcher was not in compliance of Union Pacific's Dispatching rules 20.8.1 requirements for granting and releasing authority, dispatching rule 20.8.2 confirmation of limits prior to granting authority and Federal requirements for radio transmission of mandatory directives under 49 CFR 220.61.B4.

ANALYSIS-SIGNAL MAINTAINER

Voice recordings of the conversation between the third trick train dispatcher and signal maintainer obtained from Union Pacific's dispatching center revealed the signal maintainer failed to listen to the train dispatchers read back request of Track and Time Authority. Signal maintainer failed to repeat the Track and Time issued by the train dispatcher. Track and Time documentation obtained from the signal maintainer indicated Track and Time granted by the train dispatcher was not written down and indicated the wrong location.

Training records and discipline records for the signal maintainer was obtained from the Union Pacific Railroad and analyzed for meeting training requirements and compliance.

CONCLUSION:

The Signal maintainer was trained and qualified in proper radio communications for requesting Track and Time Authority. The Signal maintainer failed on equipment condition, clean up procedures. The Signal maintainer was tested and passed on personal protection equipment, work procedures, fire prevention, tool condition, in track safety during the 2008 period.

The UP Signal maintainer failed to comply with GCOR 2.14 mandatory directives, maintenance of way rule 42.4.1 requesting Track and Time Authority, Federal Regulations 49 CFR 220.61A and 220.61B4. The Signal maintainer, while performing his duties on November 13, 2008, was outside his authority twice while on the Main Track.

ANALYSIS-LOCOMOTIVE ENGINEER OPERATING PERFORMANCE:

The locomotive was equipped with a speed indicator and an event recorder as required. The relevant event recorder data was down loaded by the Manager of Operating Practice and analyzed at the accident site.

CONCLUSION:

The locomotive engineer was in compliance with all applicable railroad and train handling requirements.

OVERALL CONCLUSIONS:

The signal maintainer and third trick train dispatcher failed to comply with applicable railroad operating rules, dispatcher rules and Federal standards.

The train crew and first trick dispatcher were in full compliance with their own and all applicable Federal standards.

PROBABLE CAUSE & CONTRIBUTING FACTORS:

The collision occurred because the train dispatcher failed to listen to the job briefing from the signal maintainer requesting limits. The signal maintainer failed to listen to the repeat on the limits from the third trick train dispatcher. The train dispatcher failed to listen to the improper limits repeated by the signal maintainer before granting authority of Track and Time