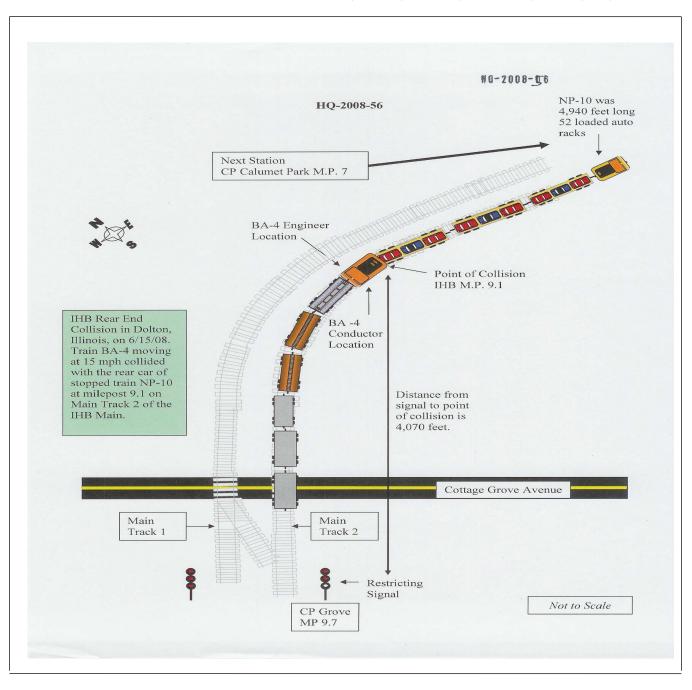
DEPARTMENT FEDERAL RAILF	-				FRA FA	<b>ACTU</b>	AL RA	ILR	OAD A	C	CIDENT	REPO	ORT	_	Η	FRA Fi	le #	HQ-200	8-56	<u>6</u>	
1.Name of Railroad (	Ta. Alphabetic Code						1b. Railroad Accident/Incident No.														
Indiana Harbor Be									IHB						3814						
2.Name of Railroad C Indiana Harbor Be	elt RR C	o. [IHB ]						2a	IHB						2b. Railroad Accident/Incident No. 3887						
3.Name of Railroad 0 N/A	Operating	g Train #3						3a. Alphabetic Code 3 N/A						3b. Railroad Accident/Incident No. N/A							
4.Name of Railroad H	4a. Alphabetic Code 4 IHB						4b. Railroad Accident/Incident No.														
Indiana Harbor Be			tificat	ion Nu	mber			<u>б</u> Г	Date of Ac		Bent/Incident			3814 7. Time of Accident/Incident							
5. 0.5. DOI_AAR C		Joshing Tuen	uncat	ion ivu	liibei				nth 06		Day 15				07:55			<b>A</b> M		РМ	
8. Type of Accident/I		1. Derail			4. Side c	ollision		7. Hwy-rail crossing 10. Explosion-						(1						Code	
(single entry in co	de box)	2. Head of 3. Rear e				g collisio		8. RR grade crossing 11. Fire/violent						rupture (describe in narrative) 03							
9. Cars Carrying	n Train c			Obstructio	on		2. Other i	impacts							0.5						
HAZMAT		10. HAZ Damageo					Cars Rel ZMAT	leasing	0		12. Pe Evacu						3. Division				
	13	U			00	15. Mi	lamost		00					0			SYSTEM				
14. Nearest City/Tow	'n					1	nearest t	enth)		16	. State Abb	or Cod	le	17. (	County						
	D	OLTON				,		9.1			N/A IL		L		COOL			ЭК			
18. Temperature (F)		19. Visit	oility		gle entry)	Code	20. V	Veathe	er (singl	e en	entry) Co		ode		21. Type of Track			k		Code	
(specify if minus)	) ) F		Dawn Day		Dusk Dark	2		l. Clea						1. Main 3.					1	1	
		2.	Day	4.	Dark			2. Clou			6.Snow	1.5	2			ard 4. Industry					
22. Track Name/Nu	mber						A Track ss (1-9, 3		Code 2		Annual Tr. (gross tor		sity		25. Time Table Di 1. North					Code	
		IHE	8 MAI	N TRA	ACK 2				1		millions)		64.9			2. South				3	
						1	OPER	RATI	NG TRA	AIN	<b>1 #1</b>										
26. Type of Equipme	ent 1	. Freight tra	ain	4. W	ork train 7	. Yard/sw	itching	A.	Spec. Mo	W I	Equip. Cod	le   27. V	Vas Eq	uipm	ient (	Code	28. T	rain Nur	nber	/Symbol	
Consist (single en		. Passenger		5. Si		. Light lo			1				Attende	d?						2	
	3	. Commute	r train	6. Ci	ut of cars 9	. Maint./i	nspect.ca	ır			1		1. Yes	s 2	. No	1		KB54	BA4	1	
29. Speed (recorded	speed, if	`available)	Cod	e 31	. Method(s)	of Operat	ion (	(enter	code(s)					3	1a. Rem	otely C	ontrol	lled Loco	moti	ive?	
R - Recorded				a	. ATCS		g. Autom				Special inst Other than 1		ŀ		= Not a						
E - Estimated	9	MPH	R		. Auto train	control	h. Curren				Positive tra				l = Remo 2 = Remo		•				
30. Trailing Tons	(gross t	onnage,			c. Auto traiı 1. Cab	P	j.Track w				Other (Spe				3 = Rem			wei			
excluding powe	er units)				. Traffic		, k. Direct					le(s)		´	transmi	tter - m	ore th	an one			
		4929		1	. Interlocking	g	l.Yard lir	mits			e N/A	N/A N	/A N/.	A	remote of	control	transr	nitter		0	
32. Principal Car/Uni	t	a. Initial	and N	umber	b. Positio	on in Trai	in c. l	Loade	d(ves/no)	3	3. If railroa	d employ	vee(s) te	ested	for drug	/alcoho	l use.		1		
(1) First involved										-		e number						Alcohol		Drugs	
(derailed, struck, e	etc)	IH	B 401	.3		1		N	I/A		the appr	opriate b	ox.					0		0	
(2) Causing (if med		l	0			0		N	/ <b>A</b>		34. Was thi	is consist	transp	ortin	g passen	gers? (Y	(/N)		1	N	
cause reported 35. Locomotive Uni		a. Head		Mid	Train		ear End		36. Car	rs				Loa			Empty				
		End	b. M	anual		d. Manu					-				b. Pass.		-	d. Pass.	e. (	Caboose	
(1) Total in Train		1		0	0	0	0	)			Equipment	Consist	34	_	0	23	3	0		0	
(2) Total Deraile 37. Equipment Dama		0		0	0	0	0	)	(2) Total	l De	railed		0		0	0		0		0	
	age .	***		38. Tr	ack, Signal, V	Way,	¢1 007 (		39. Prim	nary	Cause				40. Cont	ributing	Caus	se			
This Consist		\$0.00			Structure Damage \$1,806.0				H605					Code N/A							
41 5 /	40 F	Numbe	r of C		onductors	144 P	rakemen		45 5		10	I	Length	h of Time on Duty							
Operators 1 0						44. D			45. Engineer/Operator			м			46. Conductor Hrs 3 Mi				Mi	25	
					1		0		Hrs 3 Mi 25												
Casualties to:	48. Tra	ain Passenger	:s 49.	Other		50. EOT Device?					51. Was EOT Device Properly Armed?										
Fatal 0					0		0	1. Yes 2. No 1						1. Yes 2. No 1							
Nonfatal		0			0		0		52. Caboose Occupied by Crew? 1. Yes 2. No						2						
							PERA	TING	TRAIN					-							
52 Tune of Family	t 1	Freight tra	un	4. W	ork train 7.	Yard/sw						o 54 W	Vas Equ	linm	ent o	ode	55 7	roir N	ah a r	Cymal 1	
53. Type of Equipme Consist (single en		Passenger				Light loo	-	A. 1	spec. MO	W E	Equip. Cod	-	ttended	-	-m ()	ode	55. I	rain Nun	iver/	Symbol	
Consist (single en	ury)	0			t of cars 9.	0		r			1		1. Yes	2.	No	1		NP	10		
56. Speed (recorded					. Method(s)				· code(s)	tha	t apply)	1				otely C	ontrol	lled Loco	moti	ive?	
R - Recorded	5				. ATCS		g. Autom				Special inst				0 = Not a remotely controlled						
E - Estimated	0	MPH	R	1	o. Auto train	control	h. Curren	nt of tr	affic	n.	Other than 1	main trac	k		1 = Rem	ote cont	rol po	ortable			

DEPARTMENT FEDERAL RAILF					FRA FA	CTUAL	RAILR	OAD AC	CID	ENT	REP	ORT	F	RA Fil	e # ]	HQ-200	<u>8-56</u>		
57. Trailing Tons <sub>(gro</sub> excluding powe				d.	Auto train Cab Traffic	rain orders o. Positive train control t control p. Other ( <i>Specify in narrative</i> ) c control Code(s)					2 = Remote control tower 3 = Remote control transmitter - more than one remote control transmitter								
		3839		f. 1	Interlocking	e N/A N/A N/A N/A					remote c	0							
59. Principal Car/Un	it	a. Initial	and N	umber	b. Positio	c. Load	ed(yes/no) 60. If railroad employee(s) to												
(1) First involved (derailed, struck, etc) TTGX97834			42	54			yes	enter the number that we the appropriate box.								Drugs			
(2) Causing ( <i>if mechanical</i> )										rting passengers? (Y/N)				N/A					
cause reported) 0				0			N/A	A /A					ing passengers: (1/14)						
62. Locomotive Units a. Head End b. Ma			Mid Ti mual	rain c. Remote		End c. Remote	63. Cars				Lo a. Freight	aded b. Pass.	c. Frei	Emp ght	-	e. Caboos			
(1) Total in Train	2		0	0	0	0	(1) Total in Equipment Consist 52		52	0	0		0	0					
(2) Total Derailed 0			0	0	0	0	(2) Total Derailed 0				0	0	0		0	0			
64. Equipment Dama	age				ck, Signal, W		1 007 00	66. Primary Cause					67. Cont	ributing	Cau	se			
This Consist		\$40.00 Numbe	r of Cr		ructure Dama	age	1,806.00	Code H605					Code Time on D	hity			N/A		
68. Engineer/	69. Fire				nductors	71. Brak	emen	72. Engin	eer/Or	berator		Lengur or	73. Con						
Operators 1		0			1		0	Hrs 9 Mi 55						H		,	Mi 55		
Casualties to:	74. Railro	oad Emplo	oyees 7	75. Trai	5. Train Passengers 76. Othe			77. EOT I				1	78. Was	EOT De Yes		Properly 2. No	Armed?		
Fatal		0			0	0	79. Caboo			 bv Crev			100			1 -			
Nonfatal		2			0 0			/// 04000	1. Y		0, 010,	2. No					2		
						OI	PERATIN	G TRAIN	#3										
80. Type of Equipment       1. Freight train       4. Work train       7. Yard/switching       A. Spec. MoW Equip. Code       81. Was Equipment       Code       82. Train Number/St         Consist (single entry)       2. Passenger train       5. Single car       8. Light loco(s).       N/A       1. Yard/switching       N/A       N/A																			
3. Commuter train     6. Cut of cars     9. Maint./inspect.car     N/A     1. Yes     2. No     N/A       83. Speed (recorded speed, if available)     Code     85. Method(s) of Operation     (enter code(s) that apply)     85a. Remotely Controlled Locomotive										motive?									
R - Recorded									•		ructions		0 = Not a	remote	ly coi	ntrolled			
E - Estimated	N/A	MPH	N/A		Auto train co	·		rame			nain tra in contr		1 = Remo 2 = Remo		-				
84. Trailing Tons         (gross tonnage, j.Track warrar								un orders				arrative)	3 = Remo			wei			
excluding powe	excluding power units) e. Traffic k. Direct traff									Cod	. ,		transmit remote c				1		
		N/A			Interlocking		ard limits		N/A	N/A	N/A	N/A N/A	Temote e	ontion	ransn	intter	N/A		
86. Principal Car/Un	a. Initial	and N	umber	b. Positio	led(yes/no)         87. If railroad employee(s) tes           enter the number that we						-	ol use							
(1) First involved (derailed, struck, etc) N/A				N/	A		N/A	1		ropriate		positive i	11		Alcohol N/A	Drugs N/A			
(2) Causing (if mechanical cause reported) N/A					N/	A	N/A	ist transport	ting passengers? (Y/N) N/A										
89. Locomotive Uni	its	a. Head		Mid Ti			End	90. Cars				Lo	aded		Emp	ty			
		End	b. Ma	inual	c. Remote	l. Manual	c. Remote					a. Freight	b. Pass.	c. Frei	ght	d. Pass.	e. Caboose		
(1) Total in Train	n	N/A	N	/A	N/A	N/A	N/A	(1) Total in	Equip	pment (	Consist	N/A	N/A	N/A		N/A	N/A		
(2) Total Deraile	ed	N/A	N	/A	N/A	N/A	N/A	(2) Total E	eraile	d		N/A	N/A	N/A		N/A	N/A		
91. Equipment Dam	age				ck, Signal, W			93. Primar	y Cau	se Code			94. Cont	ributing	Cau	se			
This Consist		N/A Numbe	r of Cr	& Str	ructure Dama	ige	N/A	N/A Code N/A Length of Time on Duty							N/A				
95. Engineer/	96. Fire		1 01 01		onductors	98. Brak	emen	99. Engineer/Operator   100. Conductor											
Operators N/A		N/A			N/A	N	/ <b>A</b>	о .				i N/A							
Casualties to:	sualties to: 101. Railroad Employees				Гrain	103. Oth	er	104. EOT					105. Was				У		
Fatal	N/A				N/A	N	N/A .		1. Yes     2. No     N/A       106. Caboose Occupied by Crew?						1. Yes 2. No				
Nonfatal N/A				1	N/A	ľ	J/A	1. Yes 2. No N/A											
Highway User Involved								Rail Equipment Involved											
107. C. Truck-7	Frailer -	Bue	т	Other	Motor Vehic	le	Code	111. Equipment 3.Train (standing) 6.Light Loco(s) (moving) Code											
A. Auto D. Pick-Uj B. Truck E. Van	p Truck C	3. School	Bus K	K. Pedes	strian		N/A	1.Train(units pulling) 4.Car(s)(moving) 7.Light(s) (standing)											
B. Truck E. Van 108. Vehicle Speed	F		109.	a. Othe	r (spec. in na geographic	, 1	2.Train( <i>units pushing</i> ) 5.Car(s)( <i>standing</i> ) 8.Other ( <i>specify in narrative</i> ) 112. Position of Car Unit in												
108. Vehicle Speed109.geographical)Code112. Position of Car Unit in(est. MPH at impact)N/A1.North 2.South 3.East 4.WestN/AN/A																			

DEPARTMENT OF TRANSPORTATION         FRA FACTUAL RAILROAD ACCIDENT REPORT         FRA File # HQ-2008-56           FEDERAL RAILROAD ADMINISTRATION         FRA FACTUAL RAILROAD ACCIDENT REPORT         FRA File # HQ-2008-56												<u>56</u>		
110. Position						Code	113. Circu					Code		
	1. Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing       N/A       1. Rail Equipment Struck Highway User         2. Rail Equipment Struck by Highway User													
	114a. Was the highway user and/or rail equipment involved Code 114b. Was there a hazardous materials release													
in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither   N/A 1. Highway User 2. Rail Equipment 3. Both 4. Neither												N/A		
1. Fighway Oser 2. Kan Equipment 5. Boun 4. Neurer 114c. State here the name and quantity of the hazardous materials released, if any.												1		
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       11.Other (spec. in narr.)       (See instructions for codes)       1. Yes         Warning       3.Standard FLS       6.Audible       9.Watchman       12.None       2. No														
Code(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A		3. Unknown	N/A				
	Code(s)       N/A       N/A       N/A       N/A       N/A       N/A       N/A         118. Location of Warning       Code       119. Crossing Warning       Code       120. Crossing Illuminated by Street										1 by Street	Code		
1. Both Sic	0			Code		n Highway Si	0	Code		Lights or Special Lights				
2. Side of	Vehicle Appro	bach					1. Y	es						
3. Opposite	bach	N/A	-	2. No 3. Unknown		N/A	N/A 2. No 3. Unknown							
121.	122. Driver's	Gender	Code 1	23. Driver Drov			Cod	124. Driv		IIKIIOWII		Code		
Age	1. Male			and Struck of	r was Struch	Struck by Second Train 1. Drove around or thru the Gate 4. Stopped								
N/A	2. Fema	le	N/A	1. Yes	2. No	3. Unknow								
							<b>N/</b> 4	3. Did f	iot Stop		narranvej	N/A		
125. Driver Pa		Coc	-	view of Track O				**	5.01			Code		
Highway V 1. Yes 2. No		N/		. Permanent Str . Standing Railr			ing Train 5.	0		(specify in a	narrative)	N/A		
1. Tes 2. No	5. Ulikilowii				127. Driv		igraphy 0.	Cod		as Driver in t	he Vehicle?	Code		
Casualties to: Killed Injured						d 2.Injured 3.	Uninjured	N/4	.	. Yes	2. No	N/A		
129 Highway Pail Crossing Users N/A N/A 130. Hi						hway Vehicle		mage N/A		otal Number o aclude driver)	er of Highway-Rail Crossing			
122 Locomot	ivo Auvilioru	Lighto?			(est.	dollar dama, Code								
132. Locomotive Auxiliary Lights?     Code     133. Locomotive Auxiliary Lights Operational?       1. Yes     2. No     N/A     1. Yes     2. No											Code			
						Code	135. Locomotive Audible Warning Sounded?							
	134. Locomotive Headlight Illuminated?     Code     135. Locomotive Audible Warning Sounded?       1. Yes     2. No     N/A     1. Yes     2. No											Code N/A		



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

#### 137. SYNOPSIS OF THE ACCIDENT

Eastbound Indiana Harbor Belt (IHB) Freight Train KB54-BA-4 (BA-4) collided with the rear end of stopped IHB Freight Train NP-10 (NP-10) on June 15, 2008, at 7:55 a.m. CDT. The accident occurred in Dolton, Illinois, at IHB Milepost 9.1 on Main Track 2. There were no injuries to the crew of IHB train BA-4. Both crewmembers on IHB Train NP-10 sustained reportable non-life threatening injuries. No equipment derailed as a result of the collision. There was no damage to the locomotive of IHB Train BA-4. The rear end of IHB Train NP-10 had minor damage of \$40. There was \$1,806 in track damage.

At the time of the accident it was daylight, overcast, and windy. The temperature was 80 °F.

The accident was caused by the failure of the crew of IHB Train BA-4's to comply with the requirements of a restricting signal indication. The crew did not operate their train at a speed that would allow them to stop within one half the range of vision short of a train occupying the track ahead. The conductor's fatigue may have been a contributing factor.

#### 138. NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

**IHB TRAIN BA-4** 

The two man crew of IHB train BA-4 consisted of a locomotive engineer and a conductor. They went on duty at 4:30 a.m., on June 15, 2008, at IHB's Blue Island Yard Office, in Blue Island, Illinois. This is the home terminal for both crew members. They both worked 12 hours during their previous tour of duty, and both received more than the required statutory off duty period of 10 hours, prior to reporting for duty.

The assigned freight train consisted of one locomotive, 57 rail cars (34 loaded rail cars and 23 empty cars) of several varieties. It was 3,241 feet long and weighed 4,929 tons. The train was to be taken from Blue Island Yard to Burnham Yard with cars to be set out at one location en route.

The crew received their paperwork, and instructions from the yardmaster about the location of their train. The crew held a job briefing prior to leaving the yard office discussing the work they were to perform. Following the job briefing the crew attached the locomotive to their train and received a Class 1 air brake test from a mechanical department employee. They departed Blue Island Yard at approximately 7:25 a.m.

The crew entered Main Track 2 at School Street, milepost 11.3 and proceeded east. They observed an approach signal at Dolton Junction, milepost 10.5, allowing them to operate east on Main Track 2. The crew could see that the signal at CP Grove, milepost 9.7, was a red signal displaying a stop indication. As the engineer prepared to stop for the signal, the signal changed to a lunar aspect. The crew verbally acknowledged the restricting signal in the cab of the locomotive.

As the train approached the accident location, the locomotive engineer was seated at the controls on the north side of the locomotive. The conductor was seated on the south side of the locomotive. The locomotive was being operated long hood forward and this placed the conductor on the inside of the right hand curve.

### FRA FACTUAL RAILROAD ACCIDENT REPORT

The location of the accident was in the middle of a 4-degree 15 minute curve to the right. There is a 0.067 percent descending grade at this location. There was no restriction to the visibility of the conductor to the inside of the curve.

The railroad timetable direction of the train was east.

**IHB TRAIN NP-10** 

The crew of IHB train NP-10 consisted of a locomotive engineer and a conductor. The crew went on duty at 10:00 p.m., June 14, 2008, at IHB's Norpaul Yard in Franklin Park, Illinois. This is the home terminal for both crew members. They both worked 12 hours during their previous tour of duty, and both received more than the required statutory off duty period of 10 hours, prior to reporting for duty.

The train consisted of two locomotives, 52 loaded auto rack rail cars, was 4,940 feet long and weighed 3,839 tons. The train was scheduled to go from Broadview, Illinois, to IHB's Gibson Yard in Hammond, Indiana, setting out cars at one location en route. The IHB received the train in interchange from the Union Pacific (UP) Railroad where it had already received a Class 1 air brake test.

The crew operated the train from Broadview to Blue Island Yard where they set out cars from the train. They departed Blue Island eastbound on Main Track 2 en route to Gibson Yard. The train crew observed an approach signal at Paxton Avenue, milepost 8.1 where they contacted the IHB East Dispatcher as required by IHB Timetable Rule 138-8. The dispatcher instructed the crew to stop short of Paxton Avenue until he was ready for them to continue east. The crew stopped their train short of signal 82 E. This is the standard procedure for trains in excess of 5,095 feet, because the train would not clear the Paxton Avenue Road Crossing if they pulled up to the next signal.

IHB train NP-10 was stopped at the time of the accident with the rear car in a 4-degree 15 minute right hand curve. The engineer was seated at the control stand on the south side of the leading locomotive. The conductor was seated in the seat on the north side of the locomotive.

THE ACCIDENT

IHB TRAIN BA-4:

Approaching the accident area, IHB train BA-4 was operating on a restricting signal indication at a speed of 15.7 mph. The locomotive engineer's view of the track ahead was obstructed by the long hood of the locomotive as the train entered the right hand curve. The engineer asked the conductor three times if he could see anything in front of them. The conductor answered him the third time and told him to stop; there was a train in front of them. IHB train BA-4's locomotive was approximately four car lengths from the rear car of IHB train NP-10 when the engineer took action to stop the train. The engineer induced an emergency application of the train air brake system by use of the automatic brake, and braced himself for impact. The train had slowed to 9.2 mph at the time of impact. The event recorder on IHB train BA-4's locomotive, IHB 4013, recorded the speed of 9 mph at the time of impact.

The maximum authorized speed for this section of track, per IHB Timetable #1, effective April 6, 2008, is 30 mph. IHB Daily Operating Bulletin number 6-15 dated 0600 Sunday, June 15, 2008, reduced the speed at the accident location to 10 mph.

After the collision, the engineer and conductor asked each other if they were injured, and neither one of them indicated that they were. The conductor transmitted "emergency, emergency, emergency" on the radio to inform the dispatcher of the collision. The dispatcher answered the radio transmission and the crew told him they had just collided with the train ahead.

The conductor inspected the locomotive and the rail car they struck to assess the damage. He determined nothing derailed and the damage to the equipment was minimal. He did notice an automobile in the rail car they struck had severely shifted and was partially protruding through the doors of the rail car. A more detailed inspection of the struck train revealed 27 rail cars contained shifted automobiles.

### IHB TRAIN NP-10:

IHB Train NP-10 was stopped at the time of the accident. The lead locomotive of IHB Train NP-10 was on IHB Main Track No. 2, at milepost 8.2, and the rear end was at milepost 9.1. The crew was waiting for instructions from the dispatcher to proceed east.

The crew members were both seated at the time of the collision. They were talking to each other and felt the engine lunge forward, and heard the train air brakes go into an emergency application. They did not get knocked to the floor but were jostled around in their seats.

The crew transmitted an emergency broadcast over the radio which the dispatcher answered. The crew told the dispatcher they had been struck and they were requesting an ambulance.

An IHB police officer heard the emergency transmission over the radio and proceeded to the accident site. The IHB police officer spoke with the crew on IHB Train NP-10 to check on their condition. He then went to Paxton Avenue to direct the ambulance to the crew's location.

The ambulance took the crew to Saint Margaret Hospital in Hammond, IN where the engineer received treatment for soreness in his back. The conductor received treatment for soreness in his left arm and lower back.

The IHB dispatched trainmasters to the scene to assess the situation. The trainmasters asked the crew of IHB Train BA-4 what happened and the crew told them they had a restricting signal at CP Grove and they ran into the rear car of IHB Train NP-10. The trainmasters took the crew to IHB's Blue Island Yard Office to conduct an interview. The IHB conducted reasonable cause drug testing on the crew of IHB BA-4 under company authority. The trainmasters obtained written statements from the crew members and released them from duty at 12:30 p.m.

### ANALYSIS AND CONCLUSIONS

ANALYSIS:

FRA obtained fatigue related information, for the 10-day period preceding this incident including the 10-day work history (on duty/off duty cycles) for all of the employees involved.

### CONCLUSION:

Upon analysis of that information FRA concluded that one or more of the employees may have been working at a diminished level of safety (effectiveness) due to mental and/or physical attributes associated with fatigue, which may have contributed to the cause of the accident.

ANALYSIS - TOXICOLOGICAL TESTING:

The crew of IHB Train BA-4 was given a Reasonable Suspicion/Cause Drug Test under company authority. The results for both employees were negative.

CONCLUSION:

Intoxication was not a causal factor.

ANALYSIS - LOCOMOTIVE ENGINEER OPERATING PERFORMANCE:

The locomotive on IHB Train BA-4 was equipped with an event recorder. The data from the event recorder was downloaded and analyzed by the IHB Senior Road Foreman. The engineer was operating the locomotive backward, with the long hood of the locomotive obstructing his view as the train entered the right hand curve. The maximum authorized speed for the section of track is 30 mph. The crew of IHB Train BA-4 was operating over the maximum allowable for a restricted speed per IHB Daily Operating Bulletin No. 6-15.

### CONCLUSION:

The locomotive engineer of IHB Train BA-4 did not operate in compliance with NORAC Rule 80 (Restricted Speed). The engineer was not operating at a speed that would allow him to stop short of a train occupying the track ahead. NORAC Rule 956 in part reads: "Engine service employees must regulate the speed of their train and exercise discretion, care, and vigilance in moving their train to avoid collisions." The engineer did not take sufficient measures to ascertain that the track was clear in front of him. The engineer should have operated into the curve at a slower speed if the crew was unable to determine the track in front of the train was clear of obstructions. The train crew of IHB BA-4 did not comply with the maximum speed for this section of track. The event recorder indicated the speed of the train had reached 15.7 mph. This was not in compliance with NORAC Rule 124, Maximum Authorized Speed.

ANALYSIS - CONDUCTOR PERFORMANCE:

The statements from IHB Train BA-4's crew indicated the conductor was in a position on the locomotive that should have allowed him to see the train in front of them.

# CONCLUSION:

The conductor failed to inform the engineer of the train ahead of them until they were four to five car lengths from it. The conductor did not ensure the train was being operated in compliance with NORAC Rule 80. The conductor's statement and interview with the FRA indicated he closed his eyes after he called out the restricting signal to his engineer. The conductor did not remember anything from the time he called the signal to the time he heard the engineer loudly asking him if he could see anything ahead of them.

## ANALYSIS - IHB NP-10 TRAIN CREW:

IHB Train NP-10 was stopped at Paxton Avenue at the time of the collision.

CONCLUSION:

The crew was in compliance with all railroad rules; and was not a contributing factor to the collision.

# OVERALL CONCLUSIONS:

The train crew of IHB Train BA-4 failed to comply with a signal requiring train movement at restricted speed. The train was not being operated at a speed that would allow it to stop in one-half the range of vision, short of a train occupying the track ahead. Operating the locomotive with the long hood forward created an operating condition requiring constant communication between the crew members in order to comply with the requirements of restricted speed. When the engineer was unable to see the track ahead was clear, and getting no response from the conductor, he should have immediately reduced the speed of the train, or stopped the train, until he could ascertain the track was clear of obstructions.

PROBABLE CAUSE AND CONTRIBUTING FACTORS:

The accident was caused by the failure of IHB Train BA-4's crew to comply with the requirements of a restricting signal indication. The crew did not operate their train at a speed that would allow them to stop within one half the range of vision short of a train occupying the track ahead. The conductor's fatigue may have been a contributing factor.

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