

Federal Railroad Administration Office of Safety Headquarters Assigned Accident Investigation Report HQ-2007-07

> Norfolk Southern (NS) Plainfield, New Jersey February 15, 2007

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.

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DEPARTMENT FEDERAL RAILI	OF TRA ROAD A	ANSPORT DMINIST	TATIO RATI	ON ON	FRA FA	ACTUA	AL RA	ILRO	AD AO	CCID	ENT R	EPOR	Т]	FRA Fi	le #	HQ-200	<u>17-7</u>
1.Name of Railroad	1a. Alphabetic Code					1b.	b. Railroad Accident/Incident No.											
2.Name of Railroad O N/A	2a. Alphabetic Code N/A						b. Railroad Accident/Incident No.											
3.Name of Railroad (3a. Al	phabetic	Code			3b.	b. Railroad Accident/Incident No.											
4.Name of Railroad I	4a. Alphabetic Code					4b.	b. Railroad Accident/Incident No.											
5. U.S. DOT_AAR C	Corp. [C Grade Cro	ssing Ident	ificatio	on Nu	mber			6. Dat	e of Acci	ident/In	cident	200	7.1	Time of Accident/Incident				
0 77 6 4 1 4 7	. 1	1 Derailt	nent		4 0:1	11		7 1		Day	14 10	Explosio	n datar	nation 13. Other				Code
 Type of Accident/I (single entry in co 	4. Side c 5. Rakin	ollision g collision	1	7. HV 8. RF	R grade c	rossing	10.	Explosio Fire/viol	ent rupture (describ			ribe ir	ı	Code				
(g)		3. Rear er	nd coll	ision	6. Broke	n Train co	ollision	9. Ot	ostruction	n	12 Other impac			ts narra				12
9. Cars Carrying		10. HAZ	MAT	Cars	0. Brone	11.	Cars Rel	Cars Releasing			12. People			13. Divisi				
HAZMAT	75	Damaged	/Derai	led	N/A	HA	HAZMAT		N/A		Evacuate	ed		0		North Jers		ev
14 Nooroot City/Tow		16 State					County				- ,							
14. Nearest City/10w	Sout	h Plainfield	1			(to a	nearest te	earest tenth) 6.92		Abbr Code N/A NJ			MI		DDLESEX			
18. Temperature (F)		19. Visib	ility	(sin	gle entry)	Code	20. W	Veather	(single	entry)		Cod	e	21. Type of		Track		Code
(specify if minus) . F	1.1	Dawn Dav	3.E)usk Dark	1 4	1	. Clear	3. Rai	in 5.5	Sleet	1	1	1. M	ain 3	Sidin	g	1 4
IS) I'	2.1	Day	4.1	Jaik	4	2	. Cloudy	/ 4. Fog	g 6.	Snow		1	2. Yard 4. In		Indus	iry	4
22. Track Name/Nu	imber					23. FRA	A Track ss (1-9, X	Co K).	de	24. Anr (gr	oss tons	k Densit	y	25. Tim	1. Nort	h 3.	East	Code
		V	Vhitta	ker Le	ead			-/	1	mil	lions)	(00		2. Sout	h 4.		3
							OPER	ATING	G TRA	IN #1				1				
26. Type of Equipme	ent 1	. Freight tra	uin	4. W	ork train 7.	. Yard/sw	itching	A. Sp	ec. MoV	V Equip	. Code	27. Wa	s Equip	oment (Code	28. T	'rain Nur	nber/Symbol
Consist (single en	ntry) 2	. Passenger	train	5. Si	ngle car 8.	Light loo	co(s).					Att	ended?	:d?				
	3	. Commute	r train	6. Ct	t of cars 9.	Maint./ii	ispect.ca	r			1	1	. Yes	3 2. No 1 NS68Q				
29. Speed (recorded	speed, if	available)	Code	31	. Method(s)	of Operati	ion (enter c	ode(s) t	hat app	ply)			31a. Rem	otely C	ontrol	led Loco	motive?
R - Recorded a. ATCS g. Autom									ck ¹	m.Speci	ial instruc than ma	in track		0 = Not a	a remote	ely co	ntrolled	
E - Estimated	26	MPH	к	b	. Auto train	control l	1. Curren	nt of traff	fic '	o Posit	ive train	control		1 = Rem	ote con	rol po	ortable	
30. Trailing Tons (gross tonnage, c. Auto train stop 1. Time								arrant co	ontrol	p. Othe	r (Specif	fv in nari	ative)	3 = Rem	ote con	trol	wei	
excluding power units) e. Traffic k. Direc								traffic co	ontrol		Code(s)		transmi	itter - m	ore th	an one	
9686 f. Interlocking 1. Yard limits n N/A N/A N/A remote control transmitter											0							
32. Principal Car/Uni	it	a. Initial a	and Nu	mber	b. Positio	on in Trai	n c. I	Loaded	ves/no)	33. If	railroad e	employee	(s) test	ed for drug	z/alcoho	ol use,		
(1) First involved			0.17							e	nter the n	umber th	hat were	e positive i	n		Alcohol	Drugs
(derailed, struck,	etc)	N	89476			1		no		tł	ne approp	priate box	ί.				N/A	N/A
(2) Causing (if me	chanica	1	0			0		N/A		34. V	Was this o	consist tr	ansport	ing passen	gers? (Y/N)		l n
35. Locomotive Uni	i) its	a. Head		Mid	Frain	Re	ear End		36. Cars				Lo	aded		Emp	ty	
(1) Total in Train	n	End	b. Ma	nual	c. Remote	d. Manua	l c. Rer	mote	1) Total i	in Equir	ment Co	a.	Freight	b. Pass.	c. Fre	ight o	1. Pass.	e. Caboose
(1) Total III Tian		2		0	0	0	0		1) Total I	ni Equip		lisist	75	0		2	0	0
(2) Total Defaile		0		0	0	0	0	(4	2) Total I	Derailed	1		0	0	1		0	0
57. Equipment Dama	age	13200	1	38. Tra	ack, Signal, V	Way,	0	3	9. Prima	ry Caus	e			40. Cont	ributing	g Caus	se	
This Consist				&	Structure Da	mage		C	Code			H702		Code N/A				
41 5 /	40 E	Number	r of Cr	$\frac{42}{12}$	embers	1 44 Dr	akaman		16 E -	10		Le	ngth of	of Time on Duty				
41. Engineer/ Operators	42. Fir	emen		43. U	bilductors	44. DI	akemen	4	45. Engineer/Operator			M		40. Con	uuctoi H	fre	7	Mi 40
0					1	_	0			nis	7	IVII 2	10		rifs /		40	
Casualties to:	8. Tra	in Passenger	s 49.	49. Other		50. EOT Device?				51. Was EOT Device Properly Arm				Armed?				
Fatal 0					0		0		1. Yes 2. No 1				1. Yes			2. No 1		
Nonfatal		0	0 0				0	52. Caboose Occupied by Crew? 1. Yes 2. No					2. No					N/A
						0	PERAT	LING 1	ſRAIN	#2								
53. Type of Equipme	ent 1.	Freight tra	in	4. Wo	ork train 7.	Yard/swi	itching	A Sp	ec. Mo ^W	/ Equip	Code	54. Wa	s Equin	ment C	lode	55 T	rain Nun	iber/Symbol
Consist (single er	ntry) 2.	Passenger	train	5. Sir	ngle car 8.	Light loc	o(s).	- . . 5P		_quip.	2000	Atte	ended?					
	3.	Commuter	train	6. Cu	t of cars 9.	Maint./ir	ispect.car	r			N/A	1	. Yes	2. No	N/A		N	A
56. Speed (recorded	speed, if	available)	Code	58	. Method(s)	of Operati	ion (enter c	ode(s) t	hat app	ply)			58a. Rem	otely C	ontrol	led Loco	motive?
R - Recorded	0		N/A	a h	. ATCS	control 1	g. Autom	atic bloc	ck 1 fic -	m.Speci	ial instruc	ctions		0 = Not a remotely controlled				
E - Estimated	0	MPH	1N/A		. Auto traill (i. Cuitell	n or trall	iic]	n. Otnei	uian ma	III ITACK		1 = Kem	ote con	uoi po	ntable	

77. Trailing Toos (grass namage, exclusion) C. At to train stop 1. Train Train stop	DEPARTMENT FEDERAL RAILF	OF TRAI ROAD AI	NSPORT DMINIST	TATI(RATI	ON ION	FRA FA	CTUAL	RAILR	OAD AC	CCIDENT REPO	ORT	F	RA File	e# <u>HQ-200</u>	<u>7-7</u>						
$ \begin{array}{ c c c c c c c c c c c c c$	57. Trailing Tons (gross tonnage, excluding power units)					c. Auto train stop i. Time table/tr d. Cab j.Track warrani e. Traffic k. Direct traffic				ain orders o. Positive train control t control p. Other (Specify in narrative) c control Code(s)				2 = Remote control tower 3 = Remote control transmitter - more than one							
Sp. Pensigned CarChini La Initial and Number II. Provide Market Speak (Market Speak) Of If adjand conject/sci costs of ading-location loss. Control Market Speak (Market Speak) Of If adjand conject/sci costs of ading-location loss. Control Market Speak (Market Speak) No.4 10: First involved (Market Speak) 0 0 NNA NNA Initial and Sumber II. NNA NNA 10: Carsing (ff mechanical Disol Internation (Market Speak) 0					f.	f. Interlocking 1. Yard limits				N/A N/A N/A 1	remote c	N/A									
(1) First ferrorbal dorailed, attack etc) 0 0 NA enter the number for the verge outrix in transporting possenger? (V/N) ARX602 Unspace of transporting possenger?? (V/N) (2) Casing (ff mechanical) 0 0 NA 61. Was this consist arrangering possenger?? (V/N) NA NA 61. Was this consist arrangering possenger?? (V/N) NA NA 61. Was this consist arrangering possenger?? (V/N) NA NA 61. Was this consist arrangering possenger?? (V/N) NA NA 61. Was this consist arrangering possenger?? (V/N) NA NA 61. Was this consist arrangering possenger?? (V/N) NA Casin Landed	59. Principal Car/Unit a. Initial and Nur				lumber	mber b. Position in Train c.			led(yes/no)	sted for drug/alcohol use,											
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	(1) First involved (derailed struck sta) 0				0			N/A	enter the numb	e positive in Alcohol			Drugs								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	(defailed, stituck,	chanical								61 Was this consi	ist transport	N/A			N/A						
62. Locendrive Units a. Head Minum I c. Remote Atmanu I c. Remote Remote Atmanu I c. Remote	cause reported) 0			0		1	N/A			ing passen	N/A										
(1) Total in Tanin 0	62. Locomotive Units		a. Head End	b. Ma	Mid T anual	rain c. Remote	rain Rear l c. Remote d. Manual		63. Cars	a. Freig		Loaded I It b. Pass. c. Freig		Empty ght d. Pass.	e. Caboos						
1/2) Total Decailed 0	(1) Total in Train		0		0	0	0	0	(1) Total in Equipment Consist		0	0	0	0	0						
64. Equipment Damage This Consist 0 65. Frinang Cause (See Structure Damage) 06. Frinang Cause Code N/A N/A 68. Engineer/ Operators 09. Frienen 70. Conductors 71. Brakemen 72. EngineerOperator 77. Controbuting Cause Code N/A 68. Engineer/ Operators 0 0 0 1. Ke 0 0 Mi 0 N/A Fatal 0 0 0 0 0 1. Yes 2. No N/A Nonfaul 0 0 0 0 0 1. Yes 2. No N/A 75. Consolve Compiled Dy Cere? 1. Yes 2. No N/A 1. Yes 2. No N/A 80. Type of Equipment 1. Freight train 4. Work train 7. Yard/watching A N/A 1. Yes 2. No N/A 83. Speed (recorded speed, fraulable) 0 0 0 N/A N/A 1. Yes 2. No N/A 84. Training Toos (gross tomage, excluting train stop. 1. Traine stop. 1. Traineed train stop. 1. Traine stop. 1. Tr	(2) Total Deraile	(2) Total Derailed 0			0	0	0	0	(2) Total E	Derailed 0		0	0	0	0						
Number of Crew Meakers Participation Partinanon Participation Partinanon Particip	64. Equipment Dam This Consist	age	0		65. Tra	ck, Signal, V Structure Day	Vay, nage	0	66. Primar Code	N/A	67. Cont Code	ributing	Cause	N/A							
68. Engineer/ Operators 69. Finemen 70. Conductors 71. Brakemen 72. Engineer/ 0 73. Conductor 73. Conductor Cassulties to: 74. Railtoad Employee; 75. Train Passengen 76. Other 1 1 75. Conductor 76. Conductor 75. Conductor		1	Numbe	r of Ci	rew Me	mbers					Length of	Time on D	uty								
Operators 0 Casualities to: 0 74. Ruito ad Employee 0 75. Train Passengers 76. Other 75. Other Tr. EOT Device? N/A 80. Type of Equipment Consist (angle entry) 1. Freight train 3. Commuter train 6. Cut of Coperation 4. Case 5. Single car 8. Light loo(s). N/A N/A </td <td>68. Engineer/</td> <td>69. Fire</td> <td>men</td> <td></td> <td>70. Co</td> <td>onductors</td> <td>71. Brak</td> <td>temen</td> <td>72. Engin</td> <td>eer/Operator</td> <td></td> <td>73. Con</td> <td>ductor</td> <td></td> <td></td>	68. Engineer/	69. Fire	men		70. Co	onductors	71. Brak	temen	72. Engin	eer/Operator		73. Con	ductor								
Classifies for Fatti 74. Bailroad Employeed 75. Train Passengers 76. Other 77. EOT Device? 77. BV Mas EOT Device Properly Armed? 78. Was EOT Device Properly Armed? Fatti 0 0 0 0 1. Yes 2. No N/A Norfatil 0 0 0 1. Yes 2. No N/A 70. Control Equipment 1. Freight train 4. Work train 7. Yardiswitching A. Spec. MW Equip. Code Attended? 81. Was Equipment Code Attended? 82. Train Number/Symbol Consult (single entry) 2. Passenger train 5. Single car 8. Light loco(s). N/A N/A N/A N/A N/A 83. Seeded (scecorded speed, if avaitable) 6. Stato train control (Entre code(s) that apply) SS. Remotely Controlled Locomotive? 3. Commuter trains. SS. Remotely Controlled Locomotive? 3. Event attrains. SS. Remotely Controlled Locomotive? 3. Event attrains. SS. Remotely Controlled Locomotive? 3. Event attrains. SS. Remotely Controlled Loco	Operators 0		0			0		0		Hrs 0 M	i 0	Hrs 0			Mi 0						
Fail 0	Casualties to:	74. Railro	oad Emplo	oyees '	75. Tra	in Passengers	5 76. Othe	76. Other		Device? Zes 2 No 1	N/A	78. Was EOT Device Properly			Armed?						
Nonfatal 0 0 0 1. Yes 2. No N/A OPERATING TRAIN #3 Consist (single entry) 2. Passenger train 5. Single car 8. Light loco(s). N/A N/A N/A N/A R. Recorded 6. Carl of carls 9. Minit /inspect.car N/A N/A N/A N/A N/A R. Recorded a. ATCS g. Autoranic block m. Special instructions a. Other than main track a. Benote control portable 2. Pase Remote Control lower 2. PaseRone Control lower 2. PaseRone Co	Fatal		0			0		0		79. Caboose Occupied by Crew?			105	2.110	10/11						
OPERATING TRAIN #3 80. Type of Equipment 1. Freight train 4. Work train 7. Yard/switching Costsit (single entry) 2. Passenger train 5. Single car 8. Light loco(s). A. Spec: MoW Equip. Code 81. Was Equipment Code Attended? Start in Mumber/Symbol Attended? 3. Commuter train 4. Cut of cars 9. Maint/inspectcar N/A N/A N/A Start and the analytic cut of the analyt	Nonfatal		0			0		0		1. Yes 2. No					N/A						
80. Type of Equipment Consist (single urt) 2. Passenger train 5. Single car 8. Light loco(s). A. Spec. MoW Equip. Code (Nature 1) 2. Passenger train 5. Single car 8. Light loco(s). N/A N/A N/A N/A N/A 83. Speed (recorded speed, if available) E - Estimated N/A O tot of cars 9. Maint_inspect_car N/A N/A N/A N/A N/A 84. Trailing Tons (gross tomage, excluding nower units) 0 ATCS g. Automatic block m.Special instructions n. Other than main track is the interaction of the Current of traffic control 0. Context is train control d. Cah 2. Remote control beer is the interaction of the Current of traffic control 0. Auto train strain control d. Cah 2. Remote control beer is transmitter 3. Remote control beer transmitter 2. Remote control beer is transmitter 3. Remote control beer is traffic transmitter 3. Remote cont							OI	PERATIN	IG TRAIN	1 #3											
83. Speed (recorded speed, if available) Code R - Recorded E - Estimated N/A 85. Method(s) of Operation (enter code(s) that apply) 85a. Remotely Controlled a. ATCS 85. Method(s) of Operation 0 0 0 1 = Remotely Controlled 1 = Remote control over 3 3 = Remote control over 3 a = Remote control	80. Type of Equipme Consist (single en	 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). 3. Commuter train 6. Cret of cars 0. Maint forward energy 								Spec. Mow Equip. Code of was Equipment Code Attended? N/A 1. Yes 2. No N/A N/A											
R - Recorded a. ATCS g. Automatic block m.Special instructions 0 = Not a remotely controlled B - Recorded b. Auto train control b. Current franting 0 = Not a remotely control ble S4. Trailing Toms (gross tomage, excluding power units) c. Auto Train Stop i. Time table/train orders o. Positive train control p. Other (Specify in nurrative) 2 = Remote control power S6. Principal CarUnit a. Initial and Number b. Position in Train c. Loaded/yes/no) R3. If riling and member the number that were positive in the appropriate box. MA N/A	83. Speed (recorded	83. Speed (recorded speed, if available) Code 85. Method(s) of Operation (enter								hat apply)		85a. Remo	otely Cor	ntrolled Loco	motive?						
10. Examinate 0 0. Auto train control 0. CAuto trains p. 2. Remote control 2. Remote control 84. Trailing Tons (gross tonnage, excludine nower units) 0 1. Trait elide/rain orders 0. OP. OP. (Specify in narrative) 3. Remote control 3	R - Recorded	N/A	MDH	0	a.	ATCS	g	Automatic b	olock ⁿ	n.Special instructions 1. Other than main tra	ck	0 = Not a 1 = Remo	remotely	y controlled							
84. Training Toos (gross tonnage, excluding nower units) d. Cab j.Track warrant control p. Other (Specify in narrative) 3 = Remote control Transmitter - more than one remote control 3 = Remote control 86. Principal Car/Unit a. Initial and Number b. Postion in Train c. Loaded(yes/no) N/A	E - Estimated		МРП	0	– b. – c.	Auto train c Auto train	stop i. T	Time table/ti	rain orders	o. Positive train contr	ol	2 = Remo	te contro	ol tower							
Code(S) <th cod(s)<="" colspan="6" td=""><td colspan="7">84. Trailing Tons (gross tonnage, excluding power units)</td><td>rack warran</td><td>it control 1</td><td>p. Other (Specify in r</td><td>narrative)</td><td>3 = Remo</td><td>ote contro</td><td>ol re than one</td><td></td></th>	<td colspan="7">84. Trailing Tons (gross tonnage, excluding power units)</td> <td>rack warran</td> <td>it control 1</td> <td>p. Other (Specify in r</td> <td>narrative)</td> <td>3 = Remo</td> <td>ote contro</td> <td>ol re than one</td> <td></td>						84. Trailing Tons (gross tonnage, excluding power units)							rack warran	it control 1	p. Other (Specify in r	narrative)	3 = Remo	ote contro	ol re than one	
8. Principal Car/Unit a. Initial and Number b. Position in Train c. Loaded(yes/no) 87. If rainoad employee(s) issed for drug/alcohol use. (1) First involved (derailed, struck, etc) 0 0 N/A 87. If rainoad employee(s) issed for drug/alcohol use. (2) Causing (if mechanical cause reported) 0 0 N/A 88. Was this consist transporting passengers? (Y/N) N/A 39. Locomotive Units a. Head End Mid Train b. Manual c. Remote Rear End d. Manual c. Remote 90. Cars Loaded a. Freight Empty b. Pass. c. Freight e. Caboose (1) Total in Train 0<	0					Interlocking	к. 1 1.Y	ard limits	c control	N/A N/A N/A I	N/A N/A	remote c	control tr	ansmitter	N/A						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	86. Principal Car/Un	it	a. Initial	and N	lumber	b. Positio	on in Train	c. Load	led(ves/no)	87 If railroad empl	ovee(s) test	ed for drug	v/alcohol	use							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	(1) First involved					0				enter the numb	er that were	e positive i	n	Alcohol	Drugs						
	(derailed, struck, etc) 0					0	-	N/A	the appropriate	box.		N/A									
89. Locomotive Units (1) Total in Train EndA. Head EndMidi Train c. RemoteRear End (d. Manual (c. Remote90. CarsLoaded a. FreightEmpty (a. Freight E_{R} c. Freight $d. Pass.(c. Freightd. Pass.(c. Freight$	(2) Causing (if mechanical 0 cause reported))]	N/A	88. Was this consi	ist transport	ing passen	gers? (Y	7/N)	N/A						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	89. Locomotive Uni	its	a. Head End	b. Ma	Mid T anual	Mid Train nual c. Remote d.		r End c. Remote	90. Cars		Lo a. Freight	aded b. Pass.	c. Freig	Empty zht d. Pass.	e. Caboose						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	(1) Total in Trai	n	0		0	0	0	0	(1) Total in	n Equipment Consist	0	0	0	0	0						
91. Equipment Damage This Consist 92. Track, Signal, Way, & Structure Damage 93. Primary Cause Code 94. Contributing Cause Code N/A 95. Engineer/ Operators 96. Firemen 0 97. Conductors 98. Brakemen 0 99. Engineer/Operator 100. Conductor 95. Engineer/ Operators 96. Firemen 0 97. Conductors 98. Brakemen 0 99. Engineer/Operator 100. Conductor 97. Casualties to: 101. Railroad Employees 102. Train 103. Other 104. EOT 105. Was EOT Device Properly Fatal 0 0 0 0 104. EOT 105. Was EOT Device Properly Nonfatal 0 0 0 0 1. Yes 2. No N/A 107. C. Truck-Trailer. F, Bus J. Other Motor Vehicle Code 3.Train (standing) 6.Light Loco(s) (moving) Code 107. C. Truck E. Van H. Motorcycle M.VA 111. Equipment 6.Light Loco(s) (moving) Code 108. Vehicle Speed (est. MPH at impact) N/A 109. geographical) Code Code 112. Position of Car Unit in N/A	(2) Total Deraile	ed	0		0	0	0	0	(2) Total E	Derailed	0	0	0	0	0						
Length of Time on Duty95. Engineer/ Operators 096. Firemen 097. Conductors 098. Brakemen 099. Engineer/Operator Hrs 0100. Conductor Hrs 0100. Conductor Hrs 0Casualties to:101. Railroad Employees 102. Train102. Train 0103. Other104. EOT105. Was EOT Device Properly 1. Yes105. Was EOT Device Properly 1. Yes105. Was EOT Device Properly 1. Yes106. Caboose Occupied by Crew?Nonfatal0000111. Equipment InvolvedN/A107. C. Truck-Trailer. B. Truck E. VanJ. Other Motor Vehicle M. Other (spec. in narrative)Code 1. N/A111. Equipment 3. Train (units pulling) 4. Car(s) (moving)6. Light Loco(s) (moving) 7. Light(s) (standing) 8. Other (specify in narrative)Code N/A108. Vehicle Speed (est. MPH at impact)109. N/ACode 1. North 2. South 3. East 4. WestCode N/A112. Position of Car Unit in N/AN/A	91. Equipment Damage 9 This Consist 0					2. Track, Signal, Way, & Structure Damage 0				93. Primary Cause Code 94. Contributing Cause N/A Code N/A											
95. Engineer/ Operators 096. Firemen 097. Conductors 098. Brakemen 98. Brakemen 099. Engineer/Operator Hrs100. ConductorOperators Casualties to:101. Railroad Employees102. Train103. Other104. EOT105. Was EOT Device ProperlyFatal00001. Yes2. NoN/A1. Yes2. NoN/ANonfatal00001. Yes2. NoN/AN/AN/A107. C. Truck-Trailer. B. Truck E. VanJ. Other Motor Vehicle H. MotorcycleCode M. Other (spec, in narrative)Code111. Equipment6.Light Loco(s) (moving) 7.Light(s) (standing) 8.Other (specify in narrative)Code108. Vehicle Speed (est. MPH at impact)109. N/A109. L. South 3.East 4.WestN/AN/AN/AN/A109. N/A1.North 2.South 3.East 4.WestN/AN/AN/A		I	Numbe	r of Ci	rew Me	mbers	100 10 1		Length of Time on Duty												
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	95. Engineer/ 96. Firemen Operators 0 0			97. C	97. Conductors 98. Brakeme 0 0			99. Engin	i 0	100. Conductor Hrs 0 Mi 0											
Fatal 0 0 0 1. Yes 2. No N/A 1. Yes 2. No N/A Nonfatal 0 0 0 0 106. Caboose Occupied by Crew? N/A N/A N/A N/A 106. Caboose Occupied by Crew? 106. Caboose Occupied by Crew? N/A N/A N/A 107. C. Truck-Trailer. F. Bus J. Other Motor Vehicle Code 111. Equipment S.Train (standing) 6.Light Loco(s) (moving) Code 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) Code 1.Train(units publing) 5.Car(s) (standing) 8.Other (specify in narrative) N/A 108. Vehicle Speed (est. MPH at impact) 109. geographical) Code 112. Position of Car Unit in N/A	Casualties to:	101. Rail	road Emp	loyees	s 102.	Train	103. Oth	103. Other		104. EOT 105. Was EOT Device Prope					ly						
Nonfatal 0 0 1. Yes 2. No N/A Highway User Involved Rail Equipment Involved Rail Equipment Involved N/A 107. C. Truck-Trailer. A. Auto D. Pick-Up Truck G. School Bus J. Other Motor Vehicle Code 111. Equipment 3.Train (standing) 6.Light Loco(s) (moving) Code B. Truck E. Van H. Motorcycle M. Other (spec. in narrative) N/A 1.Train(units publing) 4.Car(s)(moving) 7.Light(s) (standing) N/A 108. Vehicle Speed (est. MPH at impact) 109. N/A geographical) Code 112. Position of Car Unit in N/A	Fatal		0			0		0		1. Yes 2. No N/A 1. Yes 2. No 106. Caboose Occupied by Crew?											
Highway User Involved Rail Equipment Involved 107. C. Truck-Trailer. F. Bus J. Other Motor Vehicle Code 111. Equipment 3.Train (standing) 6.Light Loco(s) (moving) Code A. Auto D. Pick-Up Truck G. School Bus K. Pedestrian I.Train(units pulling) 4.Car(s) (moving) 7.Light(s) (standing) N/A B. Truck E. Van H. Motorcycle M. Other (spec. in narrative) N/A 2.Train(units pushing) 5.Car(s) (standing) 8.Other (specify in narrative) N/A 108. Vehicle Speed (est. MPH at impact) 109. geographical) Code 112. Position of Car Unit in N/A	Nonfatal 0					0		0	1. Yes 2. No N/A												
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108. Vehicle Speed 109. geographical) Code 112. Position of Car Unit in (est. MPH at impact) N/A 1.North 2.South 3.East 4.West N/A N/A	A. Auto D. Pick-Up Truck G. School Bus K B. Truck E. Van H. Motorcycle M					strian r (spec. in n	arrative)	N/A	1.Train(units pulling) 4.Car(s) (moving) 7.Light(s) (standing) 2.Train(units pushing) 5.Car(s) (standing) 8.Other (specify in narrative)						N/A						
	108. Vehicle Speed	mpact)	N/A	109. 1.Nor	rth 2.80	geographic outh 3.East	al) 4.West	Code N/A	112. Position of Car Unit in N/A												

DEPARTMENT OF TRANSPORTATION FRA FACTUAL RAILROAD ACCIDENT REPORT FRA File # HQ-2007-7 FEDERAL RAILROAD ADMINISTRATION FRA FACTUAL RAILROAD ACCIDENT REPORT FRA File # HQ-2007-7															
110. Position Code 113. Circumstance												Code			
1.Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing N/A 1. Rail Equipment Struck Highway User 4. Trapped N/A 2. Rail Equipment Struck by Highway User												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? 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. Highway User 2. Kall Equipment 3. Both 4. Neither 114c State here the name and quantity of the bazardous materials released if any															
11 iei blate ne		u quunu	, or u	e naza		and refetabeta	N/A								
115. Type	1.Gates	4.V	Vig Wa	ıgs	7.Cro	ssbucks 1	0.Flagged by	crew	116. Signaled	Crossing	Code	e 117. Whistle	Code		
Crossing 2.Cantilever FLS 5.Hwy. traffic signals 8.Stop signs 11.Other (spec. in narr.) (See instructions for codes) 1. Yes															
3. Unknown 3. Standard FLS 6. Audible 9. Watchman 12. None 3. Unknown 3. Unknown										3. Unknown	N/A				
Code(s)	Code(s) N/A N/A N/A N/A N/A N/A										IN/A				
118. Location of Warning Code 119. Crossing Warning Code										120. Cros	20. Crossing Illuminated by Street				
1. Both Sides with Highway Signals											Ves	igins			
2. Side of Vehicle Approach							2. No			2					
5. Opposite side of venicie Approach N/A 3							3. Unknown		N/A	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	Train	1. Drov	e around or	thru the Gate	4. Stopped on Crossing			
0	2. Female	e I	NI/A		1. Yes	2. No	3. Unknowi	¹	2. Stop	ped and then	Proceeded	5. Other (specify in narrative)			
			N/A					N/A	5. Dia 1	lot Stop		hurruuve)	N/A		
125. Driver Pa	ssed	Cod	e 12	26. Vie	w of Track C	Obscured by	(primary ob	struction)					Code		
Highway V	ehicle	N/		1. P	ermanent Str	ucture	3. Passi	ng Train 5.	Vegetation	7. Oth	er (specify ii	n narrative)			
1. Yes 2. No	3. Unknown	11/.	-	2. S	tanding Raili	oad Equipi	nent 4. Topo	graphy 6.	Highway Veh	cle 8. Not	obstructed		N/A		
Casualties to: Killed Injured 127. Dr 1. Killed Injured 1. Killed							ver			e 128.	Was Driver in	the Vehicle?			
							a 2.Injurea 3.	Uninjured		121	1. Yes 2. No				
129. Highway-Rail Crossing Users 0 0						(est.	dollar damag	ge)	0 (include driver) 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. Locomotive Headlight Illuminated? Code 135. Locomotive Audible Warning Sounded?											Code				
1. Y	es	2.	No				N/A	1.	Yes	2. 1	lo		N/A		



11 DEGREE CURVE

PORT READING SECONDARY

SOUTH PLAINFIELD, NJ

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

PS 0.0

MILE POST 6.92

137. SYNOPSIS OF THE ACCIDENT

A eastbound NS freight train was diverted from the main track by a switch improperly lined, on February 14, 2007, at 6:40 p.m. The train entered an industrial track, struck a brush cutter and proceeded into the industrial building. The accident occurred on a private industrial lead known as the Whittaker Lead in South Plainfield, New Jersey, adjacent to Milepost 6.92, Conrail Shared Assets (CRSH) Port Reading Secondary mainline.

There were no injuries to the train crew. The leading locomotive sustained estimated damage of \$24,000. The trailing locomotive sustained estimated damage of \$ 4,000 and the brush cutter was totaled (due to its age) at \$3,000. Damage to the building was estimated at \$250,000. Both locomotives and one end of a trailing car derailed when they ran out of running rail within the building.

At the time of the accident it was dark and clear. The temperature was 19° F.

The accident was caused by a track foreman who failed to comply with CRSH Timetable Special Instruction 405-1 procedure and the Federal Railroad Administration Emergency Order No. 24 [Docket No. FRA-2005-22796, Notice No. 1].

138. NARRATIVE

Circumstances Prior to the Accident:

A three man Maintenance of Way (M of W) Group consisting of a track foreman, class one machine operator, and a trackman were assigned to cut brush on the Port Reading Secondary main track between Block Station Center and CP Bound Brook. The group had worked normal assignments of 8 hours each day prior to this assignment.

The track foreman had permission at 8:58 AM from the South Jersey Dispatcher to occupy the Port Reading Secondary main track with an on track brush cutter number WC 2060 that was parked on the Whittaker-Clark and Daniels private industrial lead at Mile Post 6.92. The switch for the siding is facing east. The machine operator and the trackman operated the brush cutter east of the siding switch to Mile Post 7.2 to cut brush.

Due to inclement weather, the track supervisor reached the machine operator by cell phone at 11:42 a.m., informing him that he needed to prepare to tie up the brush cutter and report back to South Plainfield yard to remove snow from the switches.

The machine operator moved the brush cutter west of the switch of the private siding and stopped. He stated that he told the trackman to throw the switch, and after the machine goes by, throw it back normal and put the (M of W) lock on it. The trackman stated that the machine operator told him to throw the switch and lock it. The trackman threw the switch, locked the switch with a (M of W) lock without throwing the switch back to the normal position. The track foreman was standing near the switch, to the north of the trackman, but down a slight embankment at his vehicle.

The track foreman stated that he see the trackman throw the switch, when the machine passed, and lock the switch. He stated that he personally should have checked the switch.

There was no Switch Position Awareness Form (SPAF) completed by the track foreman, no Job Briefing at the completion of the work between the track foreman, machine operator and trackman. The track foreman canceled his Form D with the dispatcher at 12:17 p.m. and said the switches are lined and locked normal. The work group left the site.

The crew of train NS 68Q included a locomotive engineer and a conductor. They went on duty at 11:00 a.m., est, February 14, 2007, at the NS Harrisburg yard in Harrisburg, Pennsylvania. This was the home terminal for the train crew and both received more than the statutory off duty period, prior to reporting for duty.

Their assigned freight train consisted of two locomotives, 2 empty box cars and 75 loaded cars of Ethanol. It was 4,710 feet long, and weighed 9,686 tons. The train was scheduled to travel to Sewaren, New Jersey. The train received an initial terminal train air break test, and departed Harrisburg Yard at 12:30 p.m.

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

In this area of the railroad there are, in succession, a 2 degree curve to the right of about 2,000 feet, followed by a tangent of 3,880 feet to the industry switch, a 11degree curve to the left, 285 feet to the point of the accident, and 448 feet beyond into a industrial building.

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

The Accident:

Train NS 68Q East

The train was being operated east, on the Port Reading Secondary, approaching the accident area. Maximum authorized timetable speed for this train was 30 mph. The engineer noticed the switch target was red approximately 100 feet before entering the private track. He then applied an emergency break application to the rear of his train first and upon entering the siding he noticed a CRSH brush cutter and initiated a full emergency break application. The recorded train speed was 26 mph when the collision to the brush cutter occurred on the Whittaker Lead.

The train impacted the brush cutter and pushed it down the track to the industrial building door, where it derailed to the north, taking out two structural support beams of the northeast corner of the building. The train continued into the building striking a concrete barrier, where trackage ended, and continued to a stop at the east wall of the building.

Brush cutter CRSH WC2060

The brush cutter was parked 285 feet east of the main track switch, on the Whittaker Lead and was unattended. The brush cutter had been parked there by a CRSH machine operator.

Analysis and Conclusions:

Analysis:

The track foreman had seven years service with CRSH, and had been a foreman for only five months. He was book of rules qualified and had received instruction on EO-24. His last date of qualification was on March 14, 2006, and he attained a scoring grade of 90.

For four months, he was a foreman working out of the Oak Island yard headquarters, where he did not have the opportunity to take main track out of service. He was transferred to South Plainfield headquarters and had been a foreman there for about a month. He had only taken track out of service 2-3 times.

When he was in Oak Island yard, he did not have to make SPAF forms out when handling yard switches. It did not occur to him, until after being notified that the accident happened, that he should have made out the SPAF form and complied with EO-24. He was unaware that the trackman was not qualified in the book of rules.

The machine operator had 32 years service with CRSH. He was book of rules qualified, and had received instruction on EO-24. His last date of qualification was on March 16, 2006, and he attained a scoring grade of 100. He thought the trackman understood his instructions for handling the switch. He was unaware that the trackman was not qualified in the book of rules.

The trackman had only 8 months service with CRSH and was not book of rules qualified, and had received no instruction on EO-24. He did not know he was not to operate main track switches in non-signaled territory, without being qualified on the railroad's operating rules relating to their operation.

Conclusions:

The train crew was in full compliance with the operating rules of the railroad. The train crew members were the only witnesses to the accident, and had no information that could be used to determine why the switch was left in the wrong position.

The track foreman felt that he lacked experience in taking form D's and making out SPAF forms. But when he worked as a welder, he said that they used to take track out of service and at the end of the day they would make sure everything was correct.

Had he followed proper procedures that he had been trained on, made out a SPAF form and held a job briefing with his group, the accident would not have happened. His assuming the trackman had lined and locked the switch for the main track, failing to make out a SPAF form and hold a job briefing put the NS train crew in a position for serious injury or death.

The foreman, machine operator and trackman were terminated from service with CRSH.

The railroad concluded that the accident happened because of non-compliance to Timetable Special Instruction 405-1 and Emergency Order No. 24 procedures. I concur with their conclusion.

Probable Cause and Contributing Factors:

The track foreman's failure to complete the SPAF form and hold a job briefing with his work group to discuss the switch position was the primary contributing factor in this accident.

The FRA concluded that the accident occurred because the track foreman did not comply with CRSH Timetable Special Instruction 405-1 procedure and the Federal Railroad Administration Emergency Order No. 24 [Docket No. FRA-2005-22796, Notice No. 1].