

Federal Railroad Administration Office of Safety Headquarters Assigned Accident Investigation Report HQ-2006-36

CSX Transportation (CSX) Ozark, Alabama May 25, 2006

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

DEPARTMENT OF TRANSPOR' FEDERAL RAILROAD ADMINIS'	FATION FRATION	FRA FA	CTUA	L RAII	LROAD A	CCIDENT R	EPORT]	FRA File	e# <u>HQ-20</u>	06-36			
1.Name of Railroad Operating Train #1			1a. Alphabetic	Code	1b	Railroad Accident/Incident No.								
2.Name of Railroad Operating Train #2				2	2a. Alphabetic	Code	2b.	Railroad A	ccident/I	ncident				
CSX Transportation [CSX]				CSX			22837							
3.Name of Railroad Responsible for Trac	k Maintenance	e:		1	3a. Alphabetic	Code	3b	. Railroad A	ccident/	Incident No.				
CSX Transportation [CSX] 4 U.S. DOT AAR Grade Crossing Iden	ification Num	her			5 Date of Acc	CSX ident/Incident	6	Time of Ac	N/A cident/In	reident				
				-	Month	Day	Year	Thic of Ac	ciuciii/iii	leidein				
					05	25	2006	10:00: AM 🖌 PM						
7. Type of Accident/Indicent 1. Derail		7. Hwy-rail c	Hwy-rail crossing 10. Explosion-detonation 13. Other RR grade crossing 11 Eire/violent rupture (describe in											
(single chilly in code box) 2. Head 3. Rear e	nd collision	 Kaking Broken 	Train col	lision	9. Obstruction 12. Other impacts									
8. Cars Carrying 9. HAZM	AT Cars	Releasing		11. People	•		12 Divis	sion	04					
HAZMAT 8 Damaged/	Derailed	0	HAZMAT	Г	0	Evacuated		0	12. 011	Jacksonvi	ille			
13 Nearest City/Town			14. Mile	post		15 State	1	6 County	6 County					
Dill	ard		(to ne	earest tent	th) 816.9	Abbr	Code	to: county	DALE					
17. Temperature (F) 18 Visi	vility (singl	e entry)	Code	10 Wo	other (single	antry)		20 Tun	o of Troo	12	Codo			
(specify if minus) 1.	minus) 1. Dawn 3.Dusk				Clear 3. Ra	in 5.Sleet	Code	1. Main 3. Siding			Code			
80 F 2.	Day 4.Da	ark	4	2.0	Cloudy 4. Fo	g 6.Snow	1	2. Y	ard 4. I	ndustry	1			
21. Track Name/Number			22. FRA Class	Track (1-9, X)	Code	23. Annual Trac	k Density	24. Tim	e Table I	Direction 3 East	Code			
Main Track (12, A) (gross tons in 1, North 5, East Main Track 27.1														
				OPERA	TING TRA	IN #1		•						
25. Type of Equipment 1. Freight tr	ain 4. Wo	rk train 7.	Yard/swit	ching	A. Spec. MoV	W Equip. Code	26. Was Equ	ipment (Code 2	27. Train Nu	mber/Symbol			
Consist (single entry) 2. Passenge	train 5. Sing	gle car 8.	Light loco	o(s).		1	Attended	$\frac{1}{1} \sum_{n=1}^{\infty} \frac{1}{n} = 0.0000000000000000000000000000000000$						
28. Speed (recorded speed if available)	Code 30	of cars 9.	f Operatio	spect.car	ter code(s) t	hat apply)	1. 105	130a. Rem	otely Co	ntrolled Loc	omotive?			
R - Recorded	a.	ATCS	g.	Automati	ic block	m.Special instru	ctions	0 = Not a	12:05:00101	y d oi Wienled				
E - Estimated 39 MPH	R b.	Current o	of traffic	n. Other than ma	in track	1 = Remote control portable								
29. Trailing Tons (gross tonnage,	C. d.	Auto train Cab	stop 1. j.]	Time tabl	rant control	p. Other (Specie	control	2 = Remote control tower 3 = Remote control						
excluding power units)	Direct tra	affic control	Code(s)	transmitter - more than one									
300	2 f.1	Interlocking	1.	Yard limit	is	k N/A N	A N/A N/A	remote	control tr	ansmitter	0			
31. Principal Car/Unit a. Initial	and Number	b. Position	n in Train	c. Lo	aded(yes/no)	32. If railroad e	employee(s) tes	sted for drug	g/alcohol	use,	÷			
(1) First involved	N/A	1	1		no	enter the r	umber that we	re positive i	n	Alcohol	Drugs			
(derailed, struck, etc)							oriate box.		0.01	N/A	N/A			
cause reported)	N/A	N	/A		N/A	33. Was this	consist transpo	rting passen	gers? (Y	/N)	N			
34. Locomotive Units a. Head	Mid Tı	rain	Rea	ar End	35. Cars			Loade		Empty				
End	b. Manual	c. Remote	d. Manual	c. Remo	ote		a. Freigh	t b. Pass.	c. Freig	tht d. Pass.	e. Caboose			
(1) Total in Train 3	0	0	0	0	(1) Total	in Equipment Co	onsist 14	0	41	0	0			
(2) Total Derailed 0	0	0	0	0	(2) Total	Derailed	0	0	0	0	0			
36. Equipment Damage	37. Trac	ck, Signal, W	Vay,		38. Prima	ry Cause		39. Cont	ributing	Cause				
This Consist 10000	& S	tructure Dan	nage	1000	Code H302 Code N/A									
A0 Engineer/ 41 Eiremen	r of Crew Mer	nbers nductors	43 Bra	kemen	44 Engir	ear/Operator	Length o	of Time on E						
Operators N/A N/A	12. Col	1			44. Eligii	Hrs 7	Mi 15	-15. Con	Hrs	s 7	Mi 15			
Casualties to: 46 Railroad Empl	ovees 47 Train	n Dassangars	48.0	ther	49 EOT 1	Device?		50 Was	EOT De	vice Properly	v Armed?			
Estal			40.0		- 1. Ye	es 2. No	1	1. Yes 2. No 1						
ratai ()		0	0		51. Cabo	ose Occupied by	Crew?							
Nonfatal N/A		0		0		1. Yes	2. No				2			
OPERATING TRAIN #2														
52 Type of Equipment 1. Freight train 4. Work train 7. Yard/switching A Spec MoW Equip Code 53. Was Equipment Code 54 Train Number/Symbol														
1 ²¹ ¹¹ 2 ²							. 1							
Consist (single entry) 2. Passenger	train 5. Sing	gle car 8. l	Light loco	(s).	1		Attended	?		054	525			
Consist (single entry) 2. Passenger 3. Commute	train 5. Sing	gle car 8.1 of cars 9.1	Light loco Maint./ins	(s). pect.car		1	Attended 1. Yes	? 2. No 1	otaly C-	Q54	525			
Consist (single entry) 2. Passenger 3. Commute 55. Speed (recorded speed, if available) R - Recorded	train 5. Sing r train 6. Cut Code 57.	gle car 8. 1 of cars 9. 1 Method(s) o	Light loco Maint./ins f Operatio	o(s). pect.car on (er Automati	nter code(s) t	hat apply)	Attended 1. Yes	$\begin{array}{c c c} 2. \text{ No} & 1 \\ 57a. \text{ Rem} \\ 0 = \text{ Not } a \end{array}$	otely Co	Q54 ntrolled Loc y controlled	525 omotive?			

DEPARTMENT FEDERAL RAILF	OF TRA ROAD AI	NSPORT DMINIST	TATI RAT	ON ION	FRA FA	ACTUAI	LRAILR	OAD AC	CII	DENT I	REPO	ORT	F	RA File #	<u>HQ-200</u>	6-36	
56. Trailing Tons (gross tonnage, excluding power units)			с. d. е.	c. Auto train stop i. Time table/tr d. Cab j.Track warran e. Traffic k. Direct traffic				ain orders o. Positive train control control p. Other (Specify in narrative) c control					2 = Remote control tower 3 = Remote control transmitter - more than one remote control transmitter				
2045				f.	Interlocking	g 1.Y		k	k N/A N/A N/A N/A								
58. Principal Car/Un	58. Principal Car/Unit a. Initial and Nu			lumber	b. Posit	ion in Train	led(yes/no)	59.	If railroad	i emplo	oyee(s) teste er that were	ed for drug	g/alcohol us	se,	Druge		
(1) First involved EEC75: (derailed, struck, etc)			55	29			yes	the appropriate box.									
(2) Causing (if me cause reported	chanical 0					N/A]	N/A	A 60. Was this consist transportin					ing passengers? (Y/N)			
61. Locomotive Units	;	a. Head Mid End b. Manual			Train c. Remote	Rea d. Manual	r End c. Remote	62. Cars Loade Empty a. Freight b. Pass. c. Freight d. Pass.								e. Caboose	
(1) Total in Trai	n	3 0			0		0	(1) Total in	(1) Total in Equipment Consist 16 0 14 0						0		
(2) Total Deraile	ed	0) 0		0	0	0	(2) Total D	Total Derailed 2			2	0	0	0	0	
63. Equipment Dama This Consist	ge	8922 64. Track, Signal, Way, & Structure Damage					0 65. Primary Code			use	H3	02	66. Contr Code	N/A			
		Numbe	r of C	rew Me	mbers	•						Length of	lime on D	uty			
67. Engineer/ Operators 1	68. Fire	iremen 69			nductors 1	70. Bra	kemen 0	71. Engineer/Operator 72. Conductor Hrs 6 Mi 30 Hrs 6								Mi 30	
Casualties to:	73. Railr	oad Emplo	oyees	74. Tra	in Passengers 75. Other			76. EOT Device? 77. Was EOT Devi							ce Properly	Armed?	
Fatal		0 0					0	1. Yes 2. No 1 1. Yes 2. No 78. Gebeen Querrid be Querrid 2. No 1 1. Yes 2. No									
Nonfatal		0 0					0	70. Caboo	1.	Yes	y ciew	2. No				2	
	1	Highw	ay Us	ser Inv	olved						Rail I	Equipment	Involved	1		1	
79. Type C. Truck-	Frailer. F	7 Bue		I Other	Motor Veh	icle	Code	83. Equipt	nent	3	Train	(standing)	6.Light]	Loco(s) (m	oving)	Code	
A. Auto D. Pick-U B. Truck E. Van	narrative)	1.Train(units pulling) 4.Car(s) (moving) 7.Light(s) (standing) N/A 2.Train(units pushing) 5.Car(s) (standing) 8.Other (specify in narrative)									N/A						
80. Vehicle Speed			81. Di	irection	geograph	ical)	Code	84. Positio	n of C	Car Unit i	n Trair	1		(•F)			
(est. MPH at impact) N/A 1.North 2.South 3.East 4.West N/A N/A													~ .				
1.Stalled on Cros	r Crossing	Code	1. Rail Ec	luipm	nent Struc	k High	way User				Code						
4. Trapped		N/A	2. Rail Ec	2. Kail Equipment Struck by Highway User													
86a. Was the highw in the impact tr		Code	86b. Was t														
1. Highway User	2. Rail H	Equipment	3.	Both	4. Neither		N/A	1. High	way I	User 2.	Rail E	quipment	3. Both	4. Neithe	r	N/A	
86c. State here the na	me and qu	antity of t	he haz	zardous	materials re	eleased, if a	ny. N/A										
87. Type of Crossing 1.Gates 4.Wig Wags 7.Crossbucks 87. Type of Crossing 2.Cantilever FLS 5.Hwy. traffic signals 8.Stop signs						bucks 10. signs 11.	Flagged by Other (spec	crew . in narr.)	88. S	Signaled C See instru	Crossin ctions	g Warning for codes)	Code	89. Whis 1. Ye	tle Ban	Code	
Warning 3.Standard FLS 6.Audible					9.Wate	hman 12.	.None							2. No 3. Un) Iknown		
Code(s) N/A	A inc	N/A	N/A	A	N/A Code	N/A 91 Crossir	N/A	N/A Interconnect	ed	Code	92 0	rossing Ille	N/A minated b	v Street		N/A	
1. Both Sides 2. Side of Vehicle Approach							Highway Sig Yes	gnals	cu	Code	, , , , , , , , , , , , , , , , , , , ,	Lights or Special Lights 1. Yes					
3. Opposite Side of Vehicle Approach N/A						2. 3	No Unknown	N/A				2. No 3. Unkn	2. No 3. Unknown				
93. Driver's 94. Driver's Gender Code 95. Driver Dr						Behind or in	ain Code 96. Driver					~	Code				
Age 1. Male and Struck or was St N/A 2. Female N/A 1. Yes 2. No						was Struck	by Second 7 3. Unknown	rain 1. Drove around or turu the Gate 4. Stopped on Crossing 2. Stopped and then Proceeded 5. Other (specify in narrative)								ng N/A	
97. Driver Passed St	anding	Code	98.	View of	f Track Obs	cured by a	(primary ob)	struction)	·						,	Code	
Highway Vehicle	-			1. Perr	nanent Stru	cture	3. Passi	ng Train 5.	Vege	tation	7	Other (s	pecify in n	arrative)		NT/A	
1. Yes 2. No 3. Ur 101. Casulties to Hi	iknown 9hwav-Ra	nil IN/A		2. Stan	iding Railro	ad Equipme	ent 4. Topo	graphy 6.	Highv	way Vehi	cle 8	Not obstru	cted	e Vehiolo?	,	N/A Code	
Crossing Users Killed Killed Injured 99. Dr						1. Killed	d 2.Injured 3. Uninjured N/A 1. Yes 2. No						N/A				
N/A N/A 102.					102. Highv (est. d	way Vehicle ollar damas	Property Damage 103. Total Number of Highway-Rail Crossing e) N/A (include driver) N/A							ing Users			
104. Locomotive Aux	iliary Lig	hts?				(Code	105. Locoi	notiv	e Auxilia	ry Ligł	ts Operatio	nal?			Code	
1. Yes 2. No							N/A	A 1. Yes 2. No							N/A		
106. Locomotive Headlight Illuminated?						1	Code	107. Locomotive Audible Warning Sounded?							Code		
1. Yes			11/74	1.	1. Yes 2. No							N/A					



108. DRAW A SKETCH OF ACCIDENT AREA INCLUDING ALL TRACKS, SIGNALS, SWITCHES, STRUCTURES, OBJECTS, ETC., INVOLVED. HQ-36-2006

109. SYNOPSIS OF THE ACCIDENT

On May 25, 2006, at 10 p.m. Central Standard Time (CST), a northbound CSX Train Q65825 collided with the rear two cars of CSX southbound Train Q54525. The accident occurred near Ozark, Alabama (AL) at milepost (MP) AN 816.9 on the Jacksonville Division's Dothan Subdivision. The method of operation on this subdivision is Direct Traffic Control (DTC).

The crew of both trains consisted of an engineer, conductor, and engineer trainee. Both trainees were operating under the supervision of the engineer when the accident occurred. The crew for Train Q65825 reported for duty on May 25, 2006, in Dothan, AL at 2:45 p.m. Train Q65825 consisted of three locomotives, 14 loads, and 41 empties was 3,002 tons and was 3,333 ft. in length and was carrying three loaded hazardous material cars and five empties.

The crew for Train Q54525 reported for duty at 3:30 p.m. in Montgomery, AL. The train consisted of three locomotives, 16 loads, and 13 empties, weighed 2,045 tons and was 1,962 ft. in length. This train was destined for Waycross, Georgia (GA) with a crew change in Dothan. Train Q54525 was carrying no hazardous material cars.

CSX southbound Train Q54525 was instructed to take the Dillard Siding and clear up for northbound Train Q65825. The conductor of Train Q54525 dismounted at the north end of Dillard Siding and lined the switch from the main track to the siding. After Train Q54525 entered the siding, the conductor stopped the train and lined the Dillard Siding switch for main track movement. The conductor advised the engineer and engineer trainee that the train was in the clear. The conductor reported the time the main track switch was placed in the reverse position and the switch was re-aligned for main track movement. The conductor walked toward the locomotives while the engineer traineer reported this information to the train dispatcher and relinquished the direct traffic control (DTC) blocks to the dispatcher.

The train dispatcher issued a DTC order to northbound Train Q65825. Train Q65825 was operating on the main track on the Dothan Subdivision at a recorded speed of 39 miles per hour (mph) when locomotive CSXT 710 side swiped the last two cars of Train Q54525 that were fouling the main track on Dillard Siding MP AN 816.9.

After the collision, the crew of Train Q65825 was taken for medical treatment. The engineer trainee suffered a contusion to the left shoulder and the conductor was diagnosed with a contusion to his right knee. The engineer did not report any physical injuries, however, it was reported that he was experiencing some emotional stress as a result of the accident.

Track damage was estimated at \$1,000. Equipment damage for Locomotive CSXT 710 on Train Q65825 is \$10,000. Equipment damage for rail cars FURX 818674 and EEC 755 is \$8,922. There were no hazardous material leaks or evacuations.

It was dark with clear skies and the temperature was reported to be 80 degrees F.

The accident was caused by the failure of the conductor of CSX Train Q54525 to ensure that his train was in the clear on Dillard Siding.

110. NARRATIVE

Circumstances Prior To The Accident

Train Q65825

The crew of CSX Train Q65825 reported for duty at 2:45 p.m. on May 25th, in Dothan, MP AN 785.9. They consisted of an engineer, conductor, and an engineer trainee. The train consisted of 3 locomotives, 14 loads, 41 empties, weighing 3,002 tons and was 3,333 feet long. The timetable direction for this movement is south to north, and the geographical direction is the same. The train was destined for Montgomery, MP AN 902. Prior to reporting for duty, each crew member received more than the statutory off duty period. Train Q65825 departed Dothan at 8 p.m. and stopped at Collier Road, MP AN 814.9, at 8:54 p.m. holding for Local J737 and Train Q54525 to clear-up in Dillard Siding.

Train Q54525

The crew of Train Q54525 reported for duty at 3:30 p.m. on May 25th, in Montgomery, MP AN 902. They consisted of an engineer, conductor, and an engineer trainee. The train consisted of three locomotives, 16 loads, and 13 empties, weighing 2,045 tons and was 1,962 feet long. The timetable direction for this movement is north to south, and the geographical direction is the same. The train was destined for Dothan MP AN 785.9. Prior to reporting for duty, each crew member received more than the statutory off duty period.

Before departing Montgomery crew members conducted a job briefing with the AB train dispatcher and the Montgomery yardmaster. The crew made up their train and departed Montgomery with three locomotives and 29 cars. Working ahead of them in a southward direction was CSXT Local J737, which was switching industries between Dothan and Montgomery on a daily basis. Movement authority to operate on the Dothan Subdivision is DTC.

Local J737 was operating in a southward direction with two locomotives and nine cars. The train dispatcher instructed Local J737 to enter the siding at Dillard, MP AN 816.9, which is 6,019 feet in length, and hold for Train Q65825. The dispatcher determined that Train Q65825 had not departed Dothan. The crew of Train Q54525 requested the train dispatcher allow them to continue to Dillard and enter the siding behind Local J737. The dispatcher advised each train how the move was to be made. Train Q65425 arrived at the north end of Dillard siding; they stopped and the conductor aligned the switch from the main track to the siding and pulled south with the locomotive stopping near the next road crossing, County Road 108 located at MP AN 816.47. The conductor radioed the engineer racorded this time on the SPAF and immediately reported this to the train dispatcher. After Train Q54525 reported in the clear, the dispatcher authorized Train Q65825 to operate northbound.

Train Q65825 was approaching the north end of Dillard siding, MP AN 816.9. The maximum authorized speed is 40 mph. Beginning at MP AN 818.0 the track is tangent and level with a 0.00 grade for two-tenths mile. It descends on a 0.78 grade for two-tenths mile while entering a 5.29 degree left hand curve. Tangent track for three-tenths mile on a 0.26 ascending grade before entering a 4.30 degree right hand curve. The track is tangent for two-tenths mile on a 0.18 descending grade at the point of impact.

The Accident

The engineer trainee was operating from the East side of lead Locomotive CSXT 710 as the train entered a right hand curve near the north end of the Dillard siding.

FRA FACTUAL RAILROAD ACCIDENT REPORT

The engineer said he could not see the reflection from the switch banner at Dillard siding as they entered the curve and knew that the rear end of Train Q54525 was not in the clear. The engineer told his crew to get down quickly because they were going to hit Train Q54525. The engineer trainee initiated an emergency brake application and the three crew members dove to the floor of the locomotive.

Lead Locomotive CSXT 710 impacted the north (rear) set of trucks on the second rear car EEC 755, derailing the north end of that car. It also impacted the rear car, FURX 818674, derailing all wheels. These were the last two cars of Train Q54525. The left front of Locomotive CSXT 710 was damaged, but no other cars or locomotives were derailed.

The crew of Train Q65825 was transported to Southeast Alabama Medical Center in Dothan for medical treatment. The conductor was diagnosed with a contusion to his right knee and the engineer trainee suffered a bruised shoulder. The engineer was not injured, but said he was emotionally upset.

The crew of Train Q54525 was also transported to Southeast Alabama Medical Center for alcohol and drug testing. Test results were negative for each employee.

Analysis and conclusion

Analysis

Crew members of CSX Train Q54525 said that a job briefing was conducted after the train arrived at the switch for Dillard siding located at MP AN816.9. The conductor questioned the engineer regarding whether he should mount the rear car after realigning the Dillard siding switch for main track movement and pull in the clear or if the conductor should walk to the head end. It was determined that the conductor would walk to the head end.

The method of operation on the Dothan Subdivision is DTC and is not supplemented by an Automatic Block Signal System (ABS). This means that Emergency Order 24 is in effect on this subdivision.

The track in this location was last inspected on May 25, 2006, with the CSX Engineering Department Daily Track Inspection Report (Form N-474 RE) indicating no defects found.

The conductor used a portable (hand set) radio to communicate to the engineer that Train Q54525 was in the clear on the siding. The conductor also reported the time the main track switch was placed in the reverse position (9:47 p.m), and the time the switch was lined for the main track (9:53 p.m). This information was reported to the train dispatcher by the engineer from the lead locomotive. Train Q54525 immediately released all of their DTC blocks, which was also recorded at 9:53 p.m. Train Q65825 authority to occupy these blocks were recorded at 9:54 p.m.

CSX officials conducted an alcohol and drug test of Train Q54525 crew. The result of the alcohol and drug test was negative for the crew of Train Q54525.

The maximum authorized speed at the point of impact is 40 mph. The event recorder on Locomotive CSXT 710 indicated that Train Q65825 was operating at 39 mph when the engineer trainee initiated an emergency brake application at 10:00 p.m.

Conclusion

The engineer and engineer trainee were charged with violating CSX Operating Rule 165, GR-55 and Safeway Rule GS-3.

The FRA investigation revealed that northbound Train Q65825 was operating below the maximum authorized speed established for this track and the crew had proper authorization (DTC authority) to occupy the main track at this location and Train Q54525 train was not in the clear at Dillard Siding.

The accident was caused by the failure of the conductor of CSX Train Q54525 to ensure that his train was in the clear on Dillard Siding.