



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - State of Florida

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
535	11/17/1995	FEC			ATC	426	Not Determined	Espanola, Florida	N
<p>Scenario Reenacted, Unable to Duplicate, No Defects Found</p> <p>On November 17, 1995 at approximately 19:28 hours train no. 117 engine no. 426 reported cab signal remained at APPROACH HOME Y/R when engine 426 entered the approach code change block located at 1500 feet in advance to home signal 1S at CP South Dorena located at Milepost MJ 28.8. The cab signal should of changed to STOP R/Dark when entering this block. After thorough investigation on 11/17, 11/18, 11/22, 11/27 and 11/28 the events that occurred on the evening of 11/17 could not be duplicated. Extensive testing was performed on the locomotive equipment [at] the field location. A grounded track wire on the 1NBRB east rail and a ground on the N12 battery buss measuring 6 amps at the time of the incident were the only exceptions noted with the normal functioning of the system. The N12 ground was cleared on 11/17 and the track wire on 11/18. With duplications of these grounds during testing no devices failed that would of caused the incident. A recorder board has been installed on the 1NB Electrocode unit and the locomotive CSR unit has been forwarded to the factory for further testing.</p>									
93	11/13/1996	CSXT	CTC				Relay	Grand Junction, Jacksonville, FL	N
<p>Human Error - Field Wiring Error, Inadequate Service Testing</p> <p>On October 28, 1996, Train Crew reported receiving a MEDIUM APPROACH signal at Grand Junction for movement from Mildale Lead to #2 track, as they approached the switch it was lined for a normal move from #2 to #2.</p> <p>The signal system was removed from service. Signal department personnel and FRA Inspector investigated the incident. It was determined that a modification was made to the system and a test was inadvertently missed. Corrections were made, operational tests performed and the signals functioned as intended.</p> <p>Signal system was placed back in service.</p>									

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445	10/9/1998	CSXT	CTC			Q44009	None	NE Cherry, Plant City, FL	N
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Human Error - Field Wiring Error, Inadequate Service Testing

On October 9, CSX train Q44009 was traveling northbound on the main line of the Lakeland Subdivision approaching NAS Cherry. The train crew observed Green aspect on the main line NAS and a Red over Green aspect on the siding NAS. The signals were removed from service and train control personnel dispatched.

Train control personnel responded and verified the aspects viewed by the train crew. After investigation, it was determined the root cause of the false clear was caused by wire changes made recently in conjunction with replacing the searchlight with a color light signal. The operational tests were not performed correctly after the wiring changes were completed. The RAHDGR contact in the circuit the the NAS main line had been replaced with a contact from the RHDPR. The effect of this change was to remove the checks on switch position, detector circuit, and opposing routes when lining a signal. Therefore, both signals were lit when a northbound signal was requested. The wiring was corrected and the signals were returned to service after operational tests were completed.

616	6/9/1999	FEC		Manual		420	1NDR Relay	Pompano, Florida	N
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Failed Equipment or Device - Relay

On June 9, 1999 at approximately 8:43 PM FEC train 21609 engine 420 reported signal 1N displayed a Red over Green aspect DIVERGING ROUTE CLEAR at Pompano North Interlocking with train 9809 occupying the block in advance. Signal 1N should have displayed Red over Red STOP under these conditions. Both trains were stacked in Pompano siding and train 21609 was following train 9809 in a northward direction after meeting southbound train 10509. The cab signal on train 21609 went to single Red and remained at this condition immediately after entering the OS track and no incidents occurred as a result of the wayside signal failure. After arrival at the scene FEC personnel were able to simulate the conditions and duplicate the failure.

The cause of the failure was determined to be the 1ND relay that was observed mechanically stuck in the energized position by FEC signal personnel. Contacts of the 1ND relay operate the clear control on the searchlight mechanism for the 1N signal that caused the B head of the 1N signal to display a Green aspect. The relay was removed from service and replaced in kind. Operational tests were made and the signals restored back to service.

The 1ND relay is a Type B plug in relay serial number H76-96N, Drawing Number 56001-925 manufactured in 1976 by General Railway Signal Co. Rochester NY. The relay will be sent to the manufacturer for inspection by an independent lab to determine the cause of the failure. Test results are forthcoming.

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240	4/21/2000	CSXT	CTC			Y16221	#27 Track Circuit	Baldwin, Baldwin, FL	N
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Human Error - Field Wiring Error, Inadequate Service Testing

At approximately 1558 hours on April 21, 2000, northbound single engine Y16221 passed the northbound signal at Baldwin on the main track. The engine had previously indicated occupancy on two separate track circuits at Baldwin, but then indicated clear of the Baldwin circuits upon passing the northbound signal. When the track circuits indicated clear, a previously stored request began automatically lining signals. The switch at Baldwin subsequently reversed and a southbound route lined through Baldwin while Y16221 still occupied the track. The signals were removed from service and Signal personnel were dispatched.

Further investigation revealed that the track circuit had been altered by Signal employees attempting to resolve a previous track circuit problem. The employees believed that the existing track wires were faulty, disconnected the existing track wires, and replaced them with temporary wire. In re-wiring the track circuit, the employees failed to recognize the track circuit as a series fouling circuit, and inadvertently eliminated a short portion of the main track from the circuit.

The wiring errors were corrected, and signals were returned to service following operational testing.

The cause was found to be improper operational testing following field wiring changes.

253	12/12/2000	CSXT	CTC			M742-11	#6 Dwarf Signal	N.E. Live Oak, Live Oak, FL	N
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Human Error - Improper Circuit Jumper in Place

At approximately 0040 on December 12, 2000, Train M742-11 backed southward into the siding at the North End of Live Oak MP SP 713.4 on the Tallahassee Subdivision. When the switch into the siding was restored to normal, the crew observed that the dwarf signal governing movement out of the siding displayed a Red over Yellow (MEDIUM APPROACH) signal. The signal was removed from service and Train Control personnel were dispatched.

The cause was found to be a jumper which had been installed the previous day to set the lamp voltage on the Yellow aspect after replacing the dwarf signal, which had been damaged by track equipment. This jumper caused the Yellow aspect to be continuously illuminated. The jumper was removed, signal tests were made with no exceptions, and the signals were returned to service.

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			Cause							
			Narrative							
254	12/21/2000	CSXT	CTC			K996-20	None	Mango, FL	N	
			Failed Equipment or Device - Relay							
			<p>On December 21, 2000, K996-20 while traveling SB reported the SAS at NE Mango displaying an alleged CLEAR indication. K996-20 reported a STOP indication at the SAS SE Mango coming to a controlled stop beyond the limits of the SE Mango. Signals were immediately removed from service at the NE and SE Mango. Additionally the train dispatcher reported an inability to control the signal at the NE Mango prior to the arrival of K996-20. K996-20 was instructed to handle the switch NE Mango from motor to hand lining the switch reverse and restore the switch to motor position. K996-20 failed to perform this instruction. Subsequent investigation revealed no exceptions. Additional field investigation was performed by CSX and the signal mechanism apparently operated slower than normal. The signal mechanism was replaced and after full operational testing the signal was restored to service. On January 4th FRA performed a field investigation and made an assumption alleging that the signal mechanism was slow on December 21, 2000. We are reporting this but we do not consider this to be a false proceed.</p>							
695	6/15/2002	FEC	CTC			415, Train #10115	Grounded Cable	Delray Beach, Florida	N	
			Failed Equipment or Device - Aerial or Underground Cable, Shorted or Grounded (not due to vandalism or digging)							
			See attached report dated June 21, 2002. [no report attached]							
433	1/2/2004	CSXT	CTC			071502	Relay	North End of Indiantown, Indiantown, FL	N	
			Failed Equipment or Device - Relay							
			<p>At 1430 hours on January 2, 2004, train crew report on O71502 while operating southbound on signal main track into signal siding over reverse switch, observed and reported a MEDIUM APPROACH (Red over Yellow) into the siding with a set of cars setting in siding. The signals were removed from service at 1645 hours and a team was dispatched to the site to investigate this event. Investigation revealed that the RBCTPR relay, a Track Coding Relay, had bridge contacts, allowing the Code Following Relay (RBTR) to be energized. Further investigation revealed that the RBCTPR relay contacts were allowed to become bridged from the constant shunting of the track from the train cars left in the signaled siding for a long period of time. The constant coding at a high current value caused the contacts to become pitted and bridged. The cars were stored in the siding three weeks prior to the incident.</p> <p>The RBCTPR relay was replaced and a circuit design to open the negative coil path through the RBCTPR relay coding contact. Signals were restored to service at 1400 hours on 1/9/04.</p>							

No. of Reports Shown in this Listing: 9