Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Cause: Failed Equipment or Device - Interior Wiring

Report #	Date	Reporting Carrier	Block System / Interlocking / Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
17	6/30/1995	CSXT	CTC	Train Q31728	Signal 2001	Keyser Station, WV	N

Narrative

On June 30, 1995, Train Q-31728 reported receiving two Yellows and a marker at Signal 2001 with crossover at Keyser Station line from #1 to #2.

The signal system was removed from service. Signal personnel performed all operational tests and discovered the RE circuit was lodged with the YE circuit. Repairs and additional operational checks were made.

Signal system is not functioning as intended and is returned to service.

508	8/25/1995	SP	CTC	Amtrak No. 6	Signal 7274	East Riverton, UT	N

On August 25, 1995 at approximately 7:00 AM, Engineer operating Amtrak train no. 6 traveling east, reported that signal 7274 at the East End of Riverton displayed Green over Yellow on the same signal head, when signal should have been Green.

The Signal Maintainer inspected the signal system and found that behind the cable board, in the junction box, the HG and DG wires were pinched together and shorted, thus causing the signal to display Green and Yellow at the same time.

The wires were separated and insulated. The signal system was tested and found to be working as intended with no exceptions.

The signal system was returned to service on August 25, 1995 at 10:00 AM.

541	12/20/1995	SP	AB	1BSMFF19 West	Wire Eyelet	West Missler, Kansas	N

On Dec. 20, 1995 at 7:55 PM Engineer operating the 1BSMFF-19 reported that the westward signal 3977 on the main track was Green with the switch reversed at West Missler, Kansas. The Signal Supervisor tested the signal system and verified that signal 3977 was Green with the switch reversed. He found that the insulation on the ring eyelet or terminal had failed causing the number 4 front contact post to be connected falsely to the number 4 back contact of the 2NWPR relay thus allowing the 3977 HPR relay to remain energized when the switch was reversed.

The defective eyelet was replaced and the signals were tested and found to be working properly. The signal system was restored to service at 1:00 AM on December 21, 1995.

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Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
87	8/12/1996	CSXT	CTC			Train D773	Insulation	Conboy, PA	N

Narrative

Train D773 traveling west on #1 track reported a Red over Green aspect and that a Green aspect was displayed on #2 track. Signals were removed from service. Signal department personnel investigated the incident and determined that the LCHR relay control wires were environmentally damaged causing a short which allowed current to flow improperly to the relay coil.

Signal personnel replace the wires and performed all operational test. Signal system functioned as intended and were placed back in service.

72	9/26/1996	BNSF	CTC			Westbound BN Trai	Intermediate Signal 244.6 (A Head)	Springfield, MO	N

Westbound train 91817-26 looked back and observed eastbound signal 244.6 Yellow over Red as they were passing. Train crew stopped train and advised Dispatcher. Dispatcher held 91817-26 until Maintainer, Inspectors, General Construction Supervisor, and Trainmaster arrived at location. With all Signal personnel present the Yellow over Red aspect was verified with train 91817-26 setting on main track with cars setting east and west of signal. Upon investigation it was found the control circuit for the A head H2 mechanism had foreign battery on it holding the top signal Yellow. A ground and cross test was performed on the wires going to the H2 and revealed crossed wires but no current flow to ground. The source of foreign battery was found to be coming from the negative light battery (-B) and positive battery from the +B circuit for the mechanism. Further inspection revealed all wires from the case to the mechanism were bare (insulation wore off) where the wires were routed from the mast into the flexible conduit going to the H2 unit. Wires were replaced to the A and B signal mechanisms and tests performed. Signal OK for normal use at 7:06 PM.

250	10/20/2000	CSXT	CTC			U833-17	#14 Dwarf CPL Signal	Mexico Tower, Cumberland, MD	N

At approximately 0113 hours on October 20, 2000, two engines (power for U833-17) were making an eastbound move from the Cumberland Terminal 4 East Lead to the PPG Lead. As the engines passed the #14 westbound signal on the PPG Lead, the crew looked back and observed the #14 signal displaying a RESTRICTED PROCEED (two reds over a "B" marker light) instead of STOP (two red lights) while one engine still occupied the track circuit behind the signal. The signals were removed from service, and Train Control personnel were dispatched.

The cause was found to be worn insulation on the cable for the "B" marker light, which had made contact with the energized Red aspect terminal buss. The cable was repaired, signal checks were made with no exceptions, and the signals were returned to service.

321	4/11/2001	UP		Manual		BNSF 9788	None	Wagoner, OK	N

On April 11, 2001 at 16:30 CDT, at Wagoner, OK on the Cherokee Subdivision, southbound CGDRO 10, on the main track at MP 486.3, reported the southbound approach signal to the Wagoner Interlocker displayed an APPROACH DIVERGING (Yellow over Yellow) into a Red southbound home signal.

An investigation revealed that lightning had melted two wires together, which applied voltage to the bottom aspect of the southbound approach signal.

The signal system was restored to proper operation, and all applicable tests were performed.

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			Narrative						
680	9/6/2001	CP	CTC			CP6055E	45L Sig.	Buffalo, MN	N

On 9/6/01 at 1933 hrs. train CP6055 East with Conductor and Engineer was moving thru Buffalo East Control Point, Conductor looked back at the westbound absolute signal and observed signal 45L displaying a Red over Yellow aspect. This signal shound have been Red. Through investigation by Signal Supv and Signal Mtr, it was found to have the yellow light wire pinched under the nuts and washers of the red light wire in the jct. box of the color light head. The yellow wire was replaced and the balance of the other wires were inspected in all the signals at this control point. Signal 45L is a 4-position colorlight signal.

Corrective Action: Mtrs to inspect all stackable colorlight heads to assure proper spacing and placement of wires. Review incident with all Suprv. And with construction crews review the proper procedures and practices when doing wiring in close confined areas.

358	2/17/2002	NS	CTC			NS 9003	Relay Circuit	Matewan, WV	N

At 12:42 a.m. on 2/17/02, train U72U616 received a westbound APPROACH aspect on the 8LR signal at Control Point Ought-One, MP N445.5 on the Pocahontas Division, when the 8LR signal located at MP D0.6 should have displayed a STOP aspect.

The problem was duplicated during testing and found to be a foreign voltage on the LC08H relay, falsely energizing the relay which allowed the Yellow aspect to be displayed on the "A" signal head. Signal 8LR is a color light signal. The short was found in the LC08H circuit in the main shelter at CP Ought-One. This is a TC Green wired bungalow and a TC Green wire had shorted to local battery. The defective wire was replaced in the circuit, eliminating the foreign voltage. In addition, the location is scheduled to be upgraded to new electronic equipment in March, 2002.

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716	8/22/2003	LI		Manual		N/A	Signal Control Relay (16RBHB)	Jay Interlocking, Jamaica, New York	N

Sequence of Events:

On August 22, 2003 at 10:20am the Block Operator at Jay Tower reported that the indication for 16R signal at Jay Interlocking remained lit after the passage of eastbound train #4308 into #1 layup track. Block Operator restored 16R lever to the center position and was able to cancel signal. The signal was removed from service immediately and a block was placed on the affected track and route. There were no trains following the first train. Signal personnel were immediately dispatched to the interlocking.

Failure Cause:

Upon arrival at the location, Signal personnel simulated the route. The route was 16R to 14L with 7, 9, & 13 switches reverse and 11 switch noraml (see Attachment A). They displayed 16R signal and they shunted the tripping track circuit (7TR) and observed a RESTRICTING signal aspect displayed on 16R signal. In addition, they observed the 16RBHB relay energized with the 7TS (track stick) deenergized. This resulted in a RESTRICTING signal being displayed when it was not intended. The cause of the 16RBHB relay remaining energized was found to be grounded positive energy wires between switch lever bands in the Model 14 Interlocking Machine. The circuit was meggered and found to be grounded. The wires are old style TC Green. The 16RBHB circuit is not a true double broken circuit (see Attachment B), only the 16R band breaks the common energy, and in this case the 16R band was made making the circuit effectively single broken. In addition, the grounded wires were further proven to be the cause by trying an alternate route from the same signal. This resulted in the circuit working properly.

Repair & Testing:

All of the wires in the route for the 16RBHB were replaced and the ground was removed. We field tested all applicable relays, meggered, cross meggered and circuit meggered all applicable wires and cables, and tested the 7TR track circuit. The train move/route was re-simulated and found to be working properly.

Recommendations:

We have continued rewiring all the single broken circuits at our last few TC Green interlockings. It is a painstaking task because every wire you replace in a bundle of hundreds of wires could cause an adjacent wire to fail. The Jay Interlocking Model 14 machine is scheduled to be replaced entirely by the end of 2004. This will eliminate all TC Green at Jay. We will continue replacing wires until the new system is cutover.

427	11/15/2003	UP	CTC			UP 3934	Case Wiring	Niland, CA	N

On November 15, 2003 at 22:14 PST, in Niland, CA on the Yuma Subdivision, eastbound MWCFW-13, on the main track at MP 665.63, reported the eastbound absolute signal at CPSP665 (West Niland) was Yellow over Dark for a move into the siding.

An investigation revealed that case wiring had deteriorated, which allowed false battery to keep the 84RAHPR relay energized.

The wire was replaced, and all applicable tests were performed.

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No. of Reports Shown in this Listing: **11**