Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Cause: Human Error - Improper Equipment Installed

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Narrative						
27	4/25/1995	NS	AB			UP2532-4261-3151	Human Error	Rossville, TN	N

At approximately 2:00 PM, Train No. 391, running westbound, observed the westward signal at the east end of Rossville siding display CLEAR. The next signal which was at the west end of Rossville displayed STOP as it should have because an eastbound train, No. 364, was approaching on the single track ahead. Train No. 391 was expecting to stop short of the switch at the west end of Rossville in order to meet No. 364, so a normal stop was made.

The false proceed was reported to the dispatcher, and signal personnel were called to investigate. The incident was recreated and was discovered to be caused by the improper presence of a full wave rectifier between the polar output of the electronic track device and the polar HD relay for the involved signal. This device, an HP-1, caused the polar HD relay to be picked in the "normal" position with either positive or negative polarity feeding out of the ElectroCode HD terminals. The HP-1 was removed, proper testing performed, and the signal system was returned to service.

The HP-1 was intended to provide neutral polarity from a polar HD source on another ElectroCode cabinet. The HP-1 had been removed by the maintainer while troubleshooting a problem about two weeks prior to this incident. Following the troubleshooting the HP-1 was installed on the wrong Electrocode cabinet by mistake and the error was not detected until the incident in question.

509	8/24/1995	IC	CTC			GNOCH24, WC174	Signal 2LB	Skip, LA	N

Signal LB displayed a SLOW CLEAR indication for trailing route through turnout reverse, when switch points were normal. Two engines split switch. This incident was called in per FRA 233.5 at 11:40 CDST, 8-24, FRA Rpt#305107.

Investigation found that the pin attaching the throw bar to the throw rod broke. When the switch was called reverse the points remained normal. The point detector circuit had voltage of normal polarity, and the KP relay was reverse connecting the RWCR to this normal voltage. Since the RWCR was a neutral relay, it energized.

During a previous cutover the original relay (600 ohm biased-neutral) was changed to a 900 ohm neutral relay with more contacts. The tests did not detect the error since the tests did not include mechanical failures, or simulations which disconnect the motor, which prevented the switch points from moving.

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Report #	Date	Reporting Carrier	Block System / Interlocking / Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
53	12/8/1995	UP	CTC	SP8353	None	Menard Junction, IL	N

Narrative

On December 8, 1995, at 10:00 (CST) on the Chester Subdivision, northbound FHOCH-06 had a Green signal at CP D061 with intermediate northbound signal 58.3 displaying Red and the track north of Signal 58.3 occupied.

An investigation revealed a neutral relay was installed in lieu of a biased relay in the "D" circuit at CP D061.

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

570	9/13/1996	CR		Train STPI, Eng. #3	Cab Signal	Columbiana, OH	N

Cab signal on STPI upgraded from RESTRICTING to APPROACH MEDIUM with home signal ahead at STOP. Cause was non-insulated lose on rail greaser located between Tracks 1 and 2 coupling rails together and allowing cab signal from Track 2 to couple to Track 1. Hose was replaced with an insulated hose and a nylon coupler was installed.

160	7/24/1997	UP	CTC	SP 8280	None	Luling, LA	N

On July 24, 1997 at 15:30 CDST, on the Alexandria Subdivision at Luling, LA, northbound FINOLB-23 observed northbound signal 23.7 Green with the next northbound signal at CP L027 Red and a train occupying the track north of L027.

An investigation revealed the D biased relay at signal 23.7 had been changed out earlier due to lightning damage with a neutral relay.

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

183	2/10/1998	BNSF	CTC	BN9669E	Signal 142.8	Electra, TX	N

Engineer on BN9669E reported that Signal 142.8 was Green in approach to a Red signal at Signal 138.8 at 10:01 PM. The trick dispatcher held trains until the related signals could be turned to their most restrictive aspect (Red). We released the trains from the area, so that testing could be initiated. Signal Supervisor, Signal Inspector, and Signal Maintainer began testing at approximately 1:15 AM. After testing the signal at 142.8 it was discovered that following some wiring changes made by two Signal Inspectors on 12/8/98; a polar adapter module had been left on an Electrocode 2 unit. The adapter would not allow the SA mechanism to pole change to a Yellow signal. After the module was removed the signal system was tested and all OK'd. The signal system was returned to service and the dispatcher at 1:45 AM. Formal investigation is scheduled.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
289	4/8/2001	BNSF	CTC			ID# MLAULIN1-05A	Human Error	Yuma, CO	N

Narrative

The BNSF 8063 was an eastward train sitting in the siding at East Siding Switch Yuma. Eastward train ID# ZDENCHI9-08A, Engine # 4372 passed them on the main track. After the train had passed the dispatcher requested the switch reverse and an eastbound signal out of the siding. The train crew on the 8063 reported that their signal went from a STOP indication to a CLEAR indication. They communicated with the 4372 and determined that they were between the first and second intermediate signals to the east of Yuma. They realized that they should have had an APPROACH indication, stopped their train and reported this to the dispatcher. Signal personnel notified. The investigation revealed that the 40 BD relay should have been a biased relay (GRS A65-120) and was in fact a neutral relay (A65-345). The relay was replaced and the signal system tested with no other problems found. It could not be determined who or when this relay was installed.

722	1/24/2004	INOX		Automatic		40024 Southbound	DN22 B Relay A21HDPR	Quincy, Ohio	N

On 01/24/04, Indiana & Ohio Railroad train 40024 Southbound reported a CLEAR aspect displayed on the southbound distant signal to the Quincy Interlocking. After proceeding by the CLEAR signal at Milepost 162.8, train 40024 approached the home signal, Milepost 164.1, and encountered a STOP aspect displayed on the southbound home signal with a conflicting CSX train proceeding through the interlocking. Train 40024 was able to stop in approach of the home signal. Train 40024 advised the INOH dispatcher of the improper aspect displayed on the distant signal. At this point, both distant signals were taken out of service, the southbound being at milepost 162.8 and the northbound being at milepost 166.2 with all train movements being made prepared to stop at the Quincy Interlocking home signals. Notification was made to their independent signal contractor, Railroad Controls Limited (RCL). RCL then dispatched a signal maintainer and two managers to the scene. It was determined that 3 days prior to this incident a biased relay, the A21HDPR, had been replaced at the southbound home signal, milepost 164.1 and replaced with a neutral relay. The coil wires were removed from the A21HDPR to ensure that the signal in question remained at APPROACH. INOH then notified the Rail America Director of Signals & Communications who then directed that all signal cases be secured by a railroad official until the incident could be confirmed. On 01-26-04 RCL and Director of Signals & Communications recreated the incident, and verified the improper relay was the cause of the signal failure. On 01-27-04, RCL completed testing of all relays and cable, completed operational testing, and then returned the signal system back to regular operation at 16:53. At this time, the signal system was operating as intended.

Attached are the circuit plans pertinent to this incident. Note the A21HDPR on sheet 12 of 21. Walter Fithian, Rail America Director Signals can be contacted at 561-245-1506 if additional information is required.

No. of Reports Shown in this Listing: **8**