



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Atchison, Topeka & Santa Fe Railway Company

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
450	1/26/1995	ATSF	CTC			N/A	Relay	Kansas City, KS	N
Failed Equipment or Device - Relay									
At approximately 8:45PM, January 26, 1995 dispatcher reported signal 2W at CP 148 had cleared without being requested. Signal Department investigated the reported incident and determined the 2WBHR relay failed to de-energize allowing signal 2W to reclear after the train passed 2W signal. The 2WBHR relay was removed from service and signal system tested to verify proper operation. Defective relay has been taken to Topeka for further testing to determine cause of failure.									
462	2/21/1995	ATSF	CTC			829	Relay	Winslow, AZ	N
Vandalism - Instrument Case, Cable, or Junction Box Damaged									
Approximately 4:20PM, February 21, 1995 train crew on the H-KCBA1-20 reported westbound intermediate signal 2861 displayed Green over Green aspect for their train as they were departing Winslow. Signal Department was notified and on arrival found signal 2861 displaying a Yellow over Green aspect with the next westbound signal at West Winslow Red. The investigation determined that a vehicle had hit the signal instrument house causing the 1ALGR relay to lay on its side allowing the 2861 signal to display Yellow over Green instead of Yellow. The relay was returned to its normal position and the signal system was tested to prove proper operation.									
466	3/11/1995	ATSF	CTC			79	Trap Ckt	Kansas City, MO	N
Human Error - Signal Circuit Design Error, Inadequate Service-Testing									
Approximately 9:30 PM, March 11, 1995, Traffic Control Operator tried to clear westbound signal (54R) BN crossing over the 63 switch reverse. Then stacked a route to clear the eastbound signal (54LA) over the 63 switch normal. Signal (54R) would not clear and the GWRR switch engine was authorized to flag the Red (54R) signal. While the GWRR switch engine was flagging over dead section of the BN crossing frog, the 63 switch moved to normal position. Investigation by Signal Department determined the 53 trap circuit is not effective unless signal is cleared over the crossing frog dead section. As a temporary measure of protection, instructions were issued to the Traffic Control Operators to provide manual protection for similar type switching moves until circuit design changes can be installed that will provide route locking over the crossing frog regardless of position of the control signal.									

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			Cause						
			Narrative						
467	3/12/1995	ATSF	CTC			876	Circuit Design Error	Barstow, CA	N
			Human Error - Signal Circuit Design Error, Inadequate Service-Testing						
			Approximately 10:20AM, March 12, 1995, train crew on the S-LB NY5-11 reported eastbound control signal (2RA) West D yard was Green and next signal eastbound control signal (2RA) East D yard was Red. Signal Department was notified of condition reported and since all information of routes that were established at time of reported incident was not made available to the investigating team, the first effort to find reported problem was inconclusive. Further review of circuit plans and with additional information of exact routes established at reported time of incident, the reported signal condition was reproduced. Investigation revealed that a circuit design error was the cause of the reported incident. Recent circuit design change to provide compliance with FRA Rule 236.23 created the false proceed signal condition. Normal in service testing would not detect this condition, because it involved a route not under test. Circuit design error was corrected and signal system was tested to prove proper operation.						
469	3/14/1995	ATSF	CTC			5156	None	Bandini, CA	N
			Phantom Signal - Due to Sun Angle						
			Approximately 8:45AM, March 14, 1995, crew on the M-BALA1-12 reported their train was sitting on North track waiting for eastbound train that was crossing over from North track to South track and observed the westbound control signal (4L) was changing from Red to Yellow and Red to White while the eastbound train was passing under the signal bridge where the (4L) signal is mounted. Signal Department was notified and made inspection and operational test of signal system in question. All signal tests concluded signal system operating properly. The signal supervisor interviewed the conductor on the M-BALA1-13 train, conductor stated the signal aspects appeared to be more like a reflection or phantom signal condition than a true signal aspect. As a temporary preventative measure the clear outer signal lense were removed from both westbound signals until non-reflective outer lenses are received from the supplier. This is being reported as a phantom signal incident.						
473	4/5/1995	ATSF	AB			3850	Wiring Error	Athos, AZ	N
			Human Error - Field Wiring Error, Inadequate Service Testing						
			Approximately 6:20AM, April 5, 1995, crew on the Q-R1AL1-03 reported as they were on the Athos siding approaching the leave siding signal at the east end of Athos to wait for Amtrak No. 4 to pass on the south main track, the leave siding signal displayed a Green aspect. Signal Department personnel were notified and their investigation of the reported incident verified the condition as reported. Further investigation determined that a wiring error had been made while changing a two-point relay to a four-point relay the day before and proper tests were not conducted to prove correct operation of the signal system. The wiring error was corrected and tests were conducted to prove proper operation of the signal system. Responsibility for the wiring error has been determined and discipline will be assessed.						

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			Cause						
			Narrative						
482	5/4/1995	ATSF	CTC			526	Underground Cable	Near Lucy, NM	N
			Vandalism - Instrument Case, Cable, or Junction Box Damaged						
			Approximately 5:11 AM, May 4, 1995, crew on the S-KCLB5-03 reported they were lined westbound into the siding at the east end of Lucy with a Red over Green aspect at control signal (L) and the approach signal 8261 displayed Green instead of Flashing Yellow for their train. Signal personnel were notified and their investigation of the reported incident verified the condition reported. Further investigation determined that a contractor installing an antenna tower for radio control of the CCT control point, had driven a ground rod through the underground cable that runs from the instrument house to the westbound control signal (L) at the east end of Lucy. This condition provided a cross path for the B10 battery conductor and the LAHDP conductor. The LAHDP is the pole change circuit for approach signal 8261. The underground cable was repaired temporarily and signal system tested to prove proper operation. Later the same day (5/4/95) the damaged underground cable was replaced and signal system retested.						
488	6/17/1995	ATSF	CTC			UP 5055	Track Relay	Near Keenbrook, CA	N
			Failed Equipment or Device - Relay						
			Approximately 8:19 PM, June 17, 1995, crew on the (UP) F-CNYR1-17 reported intermediate signal 672 was Yellow as they passed signal and upon approach of next intermediate signal 642 they observed an eastbound train with approximately six or seven cars in their block. Signal personnel were notified and their investigation of the reported incident verified the condition reported. Further investigation determined that with standard .06 ohm shunt (2ATR) track relay would de-energize but signal control circuit stayed energized. The track relay was found to have moisture on the contacts allowing signal control circuit to be energized with track relay in the de-energized position. The track relay was replaced and signal system tested to prove proper operation. All other relays in the instrument case were inspected and found to be moisture free. The defective track relay will be returned to US&S for their investigation to determine how the moisture was allowed to enter the sealed relay						
495	7/7/1995	ATSF	CTC			608W	None	Argentine, Kansas	N
			Phantom Signal - Due to Object in Foreground or Background						
			At approximately 9:53 AM, July 7, 1995, crew on H-SRBA1-07 reported their train sitting on 2 track waiting for an eastbound train that was crossing over from 2 track to 1 track. Crew observed the 4W control signal flash between R/R and Y/Y while the eastbound train was passing under signal. Signal Department was notified and made inspection and operational test of the system in question. All signal tests concluded signal system was operating properly. Subsequent investigation revealed that the signal aspects looked like a reflection or phantom aspect. Special signal hoods are being installed on the bottom side of these signals. This is being reported as a phantom aspect signal incident.						

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			Cause							
			Narrative							
497	7/12/1995	ATSF	CTC			7161	Circuit Design Error	Mykawa, Texas	N	
			Human Error - Signal Circuit Design Error, Inadequate Service-Testing							
			Approximately 10:19 PM, July 12, 1995, train crew on the F-01756-12 reported eastbound control signal (2R) West End Mykawa was CLEAR and the next signal 2RA at East End Mykawa was Red. Signal Department was notified of condition reported and were able to reproduce the condition. Investigation revealed that a circuit design error was the cause of the reported incident. The circuit design error was corrected and the signal system was tested to prove proper operation.							
500	7/19/1995	ATSF	CTC			3448	Human Error	Kansas City, KS	N	
			Human Error - Signal, Improper Lenses Installed							
			Approximately 12:20 PM, July 19, 1995, train crew on the work train reported signal 176 was displaying a Yellow aspect for their route, and felt it should have been a lunar aspect. Signal Department was notified and their investigation of the reported incident verified the condition reported. Further investigation determined that the H2 head relay of signal 176 had the wrong color roundel in the left position. The H2 head relay was replaced to provide a lunar roundel instead of a yellow roundel. The signal system was tested to prove proper operation. Person responsible for condition found is under investigation so discipline can be assessed.							
516	9/11/1995	ATSF	AB			811	Unknown	Colmor, NM	N	
			Scenario Reenacted, Unable to Duplicate, No Defects Found							
			Approximately 6:10PM, September 11, 1995 Amtrak engineer reported signal 7102 at the west switch of Colmor Red and approach signal 7112 was Green for his train. Signal Department was notified and made operation test of the signal system in question, with no exceptions taken. The control relay for signal 7112 was replaced (22HDR) as a precautionary measure. The signal control relay (22HDR) has been sent to our signal repair shop for more extensive tests and inspections.							

No. of Reports Shown in this Listing: **12**