



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Cause: Human Error - Signal Equipment Improperly Installed

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
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137	7/31/1997	CSXT	CTC			Q579-31	Signal Mechanism	S.E. Hardy, Hardy, AL	N
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On 7/31/97, Q579-31 received a CLEAR indication at the approach signal to the SAS Hardy. The SAS Hardy indicated STOP at the time and no signal had been requested. At 1301 hours, Q579-31 overran the Red aspect at SAS Hardy.

The SAS Hardy was removed from service and subsequently investigated by signal personnel. The Yellow Green Repeater Relay (YGPR) for the SAS Hardy signal mechanism was found energized due to a bent connector pin in the plug coupler assembly. The pin was bent following testing of the signal mechanism by maintenance personnel on the morning of 7/31/97. Voltage on the YGPR sends code back to the approach signal, thereby upgrading the approach signal to display a Green aspect while the SAS was at STOP. The voltage being applied to the YGPR had no effect on the operation of the SAS Hardy.

The signal mechanism and coupler were replaced and signals inspected, tested, and returned to service on 8/1/97.

140	9/7/1997	CSXT	CTC			U141-05	None	Sessoms, GA	Y
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On September 7, at approximately 0950 hours, train U141-05 was traveling southbound over the switch at the north end of Sessoms. The dispatcher, desiring to line a follow-up movement, called for a reverse switch at the north end of Sessoms. The switch began to move to the reverse position while U141-05 was still over the switch, causing the derailment of four cars.

Upon investigation, signal personnel found the TPSR relay hanging by its wires off the front of the shelf in a horizontal position. In this position, the front contacts were on the verge of being closed. The position of the relay and the vibration due to the passing train caused the contacts to close intermittently and the OS track circuit to indicate clear under the train. The OS track circuit falsely indicated CLEAR, thereby allowing the switch to reverse while the train was still over the switch.

The relay had been installed as part of a timing circuit in late June. The relay was not in a cradle or placed on matting. The relay was repositioned and secured. The location was tested in accordance with all FRA and CSX guidelines with no exceptions taken. The location was returned to service upon completion of repairs.

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
604	7/9/1998	CR		Remote		Amtrak 286	Home Signal 1WB	Albany, NY	N
<p>Westbound Amtrak 286 reported CLEAR signal with the switch normal on 1WA signal at CP 146 and he observed a Red, Red, Green SLOW CLEAR signal on 1WB signal out of the siding. Investigation revealed that the contacts on the 3RWCR B2 plug in relay were shorting together allowing energy to pick the 1WBCHR. It was determined that the relay had been removed from the plug board 2 days earlier to be tested and that the contacts were bent when the relay was reinserted into the plugboard.</p> <p>Relay was replaced, all tests performed and the interlocking was returned to service. Discipline will be assessed to involved employees.</p>									
641	7/24/2000	KCS	CTC			KCS 6602	Pt. Det. Rod	Beaumont, TX	N
<p>At 11:50 hrs on 07/24/00 train #016423 North with engines KCS 6202 and KCS 729 with Engineer and Conductor and a consist of 48 loads, 29 empties, 6633 tons and 4370 feet, was traveling north bound at Mile Post 766, Neches River Bridge, where he reported receiving a Yellow aspect with the derail in the derailling position. The signals were immediately removed from service with the Control Operator until investigation could be made. Upon arrival at the location myself, Signal Engineer [redacted], Signal Supervisor [redacted], and Signal Maintainer [redacted] investigated the report and was able to reproduce the reported failure. The first finding was that the point detector rod was broken where the threads (for connection to the external rod) and the shoulder of the external rod come together. The second finding was that the Lock Rod Arm (clips) were installed reverse therefore not insuring that the lock rod and point detector rods were moving concurrently as described in the General Railway Signal Pamphlet #1293 Rev. February 1987, page 45. The corrective action was to install the lock rod arm (clips) properly and replace the broken point detector rod. We have checked every affected switch machine on the KCS property to insure that this condition doesn't exist anywhere else.</p>									
672	6/21/2001	AMTK		Remote		Engine #552	42EA Signal	Sunnyside Yard "R" Interlocking, Queens, Ne	Y
<p>Switching engine #552 (operating as switching crew 53A with 1 car) was operating east at signal 42EA with RESTRICTING signal aspect being displayed for a move from track #30 to Lead #3 thru #35 crossover to Lead #4. When engine #552 physically entered Lead #4, car #48981 of Amtrak train #102 was struck account being in foul of #35 crossover. Upon investigation, insulated rail joint separating 402 and 403 track circuits on Lead #4 was incorrectly installed too close to the west of east end of #35 switch. Insulated rail joint has been relocated 47' west of the existing joint location allowing proper clearance. Further investigation into determining responsibility is being conducted.</p>									
693	6/20/2002	KCS	CTC			KCS 685		Monticello, TX	N
<p>At approximately 11:45hrs on 06/20/02, train #060819 (INSATLA), with Engineer and Conductor and a consist of 24 loads, 0 empties, 6233 tons and 5685 feet, with engines ATSF 0693 and BNSF 4885 was traveling westward on the main track at East Monticello, Mile Post 101.0 on the Greenville Subdivision, Transcontinental Division, where he received a CLEAR (Green) aspect to proceed westward. As the train approached West Monticello, Mile Post 102.4, the crew reported that the westbound main line signal was Dark. Upon investigation of the report by the Signal Inspector, who also witnessed the Dark signal, it was discovered that there was a back nut behind the EN battery strap that was loose. [redacted] had been wiring in a recorder at this location when he was notified to give up his track authority and clear for a train.</p> <p>Please see attached Call Desk trouble ticket, and a Train report for the train affected.</p>									

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
697	7/2/2002	CP		Manual		730 Transfer	Sig. 5EA/5EB	Milwaukee, WI	N
<p>Switch engine (730 Transfer) with Engineer [redacted] and Conductor [redacted] sitting on #3 track at Merrill Park just west of the EB absolute signal (5EB) governing movement into Cutoff Interlocking. The crew requested the signal (5EB) to proceed east from Merrill Park #3 track with the hand throw switch lined for their route into Cutoff Interlocking. The signal (5EA) governing movement from Merrill Park #2 track into Cutoff Interlocking cleared which is not correct. When the hand throw switch is lined reverse, the signal (5EA) governing movement from Merrill Park #2 should clear when requested. When the hand throw switch is lined normal, the signal (5EB) governing movement off Merrill Park #3 should clear when requested.</p> <p>It was found that the switch circuit controller on the hand throw switch for Merrill Park #2 and #3 tracks was adjusted incorrectly causing the wrong signal to clear.</p> <p>A formal investigation is scheduled to determine facts and place responsibility for this incident.</p>									
351	8/14/2002	CSXT		CTC		K650-13	Relay	St. Stephen, NC	N
<p>At 0630 on August 14, 2002, train crew report on K65013 while operating northbound on the single main track to #2 track over a reversed switch, observed and reported a CLEAR indication (Green) at the intermediate signal MP A355 and a LIMITED CLEAR (Red over Flashing Green) at South St. Stephen when the intermediate signal should have displayed an APPROACH LIMITED (Yellow over Flashing Green). The signals were removed from service at 0645 and a team was dispatched to the site to investigate this event. Investigation revealed that the RHHR relay, a DN-11 style shelf relay, had vibrated off the shelf and was found inverted, hanging by the wires in the equipment house at St. Stephen which caused a signal to be displayed at the intermediate signal indicating better than conditions warranted. The relay was up righted and an anti-vibration assembly was installed. Complete operational tests were performed with no exceptions taken. Signals were restored to service at 1100 on 8/14/02.</p>									
379	4/24/2003	BNSF		Remote		G HURINB 1 19, B	2EA Signals (SA Mech)	River Street Control Point, Tacoma, WA	N
<p>At about 2:30 PST the train BTACTAC in the Tacoma, WA, yard observed an EB signal on Main 2 that they felt did not go Red when the OS was occupied by EB train GHURINB at the River Street Control Point. The BTACTAC made the next move in the same direction and the same signal and took the time to observe the signal and it did not go Red while they were still in the OS section. The signal did not slot off to Red until the train hit the first track circuit east of the control point. Signal personnel found a bent contact in the plugboard of the 2EA searchlight mechanism that caused an intermittent circuit path to the mech coil. This particular signal was hit by a hanging boxcar door in November of 2002. The signal was replaced at that time, and believe the contact was bent at that time.</p> <p>2EA Signal SA Mech was changed and tests made to correct the problem.</p>									

No. of Reports Shown in this Listing: 9