



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Cause: Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
9	2/6/1995	CSXT	AB				Signal 122.3	Social Circle, GA	N
<p>On February 6, 1995, Signal Maintainer was dispatched to signal trouble at M.P. YYG-122.3. Upon investigation, he determined that the home signal at M.P. YYG-120.1 displayed a CLEAR indication while the intermediate signal in advance (122.3) displayed a Red indication. Signal system was removed from service. Upon further investigation, it was discovered that the signal control wires were wrapped, causing improper polarity to be applied to control relay.</p> <p>Control wires were unwrapped, and situation corrected. Operational test was performed; and signal system was returned to service.</p>									
463	3/1/1995	SP	CTC			1EUC1Q-K28	Signal 3111	E. Sims, CA	N
<p>On March 1, 1995 at approximately 12:53 PM, Engineer operating train no. 1EUC1Q-K28 traveling west, reported that signal 3111 at East Sims displayed Red over Yellow; the correct aspect under the existing conditions should have been Red over Dark.</p> <p>Under the direction of the Signal Supervisor, the signal system was placed at STOP. Signal personnel inspected the system and found that the improper aspect was caused by a line wire wrap which occurred during a heavy rain storm. Tests showed that the slide fence repeater relay failed to slot the 3111B head thus causing signal 3111 to display Red over Yellow.</p> <p>The wrapped line wire was cleared, and the circuit was corrected to slot the head of signal 3111B thru the slide fence repeater. The signal system was tested and found to be working as intended with no exceptions.</p> <p>The signal system was restored to service on March 1, 1995 at 2:00 PM.</p>									
474	4/5/1995	SP	AB			1LBDAT1-03 East	Signal 538	E.E. Winchester	N
<p>On April 5, 1995 at approximately 2:50 PM Engineer operating train 1LBDAT1-03 traveling east, was in siding to meet train 1MBSMF2-04. Engineer reported that signal 538 was Green instead of Red after the 1MBSMF2-04 entered the block for signal 538 at MP 66.7 west of Giddings.</p> <p>Under the direction of the Signal Supervisor, the signal system was placed at STOP. It was discovered that a tree branch, broken by high winds, had fallen on the line wires, causing the 20H and 38H wires to wrap, thus making signal 538 indicate Green instead of Red with the block occupied.</p> <p>The tree branch was removed. The signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on April 5, 1995 at 7:45 PM.</p>									

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
476	4/10/1995	SEPA	CTC				Open wire - pole line	100' N of Sig. 501, MP 1.0 Warminster Line	N
<p>Nature of Failure: Engineer reported passing signal 501 displaying APPROACH MEDIUM and approaching next signal, signal 41A, displaying STOP.</p> <p>Cause of Failure: Inspection of pole line conditions revealed open line wire conductor 501AD was crossed with open line wire conductor 41AHA thus energizing 501ADR relay. Fault condition was apparently caused by a severe windstorm that passed through the area.</p> <p>Corrective Action Taken: Re-aligned open wire conductors on pole line.</p>									
483	5/11/1995	SP	CTC			SP 1WCKCQ-11	Signal 208RA	Garnet, CA	N
<p>On May 11, 1995 at approximately 11:05 PM, Engineer operating train no. 1WCKCQ-11 traveling east on the Main Track at Garnet, reported that signal 206R at the west end of the South siding was Yellow. The next signal 208RA at the east end of the North siding was Yellow then changed to Flashing Yellow. The next signal 210RA was Red. The incident occurred during a sand storm.</p> <p>Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly tested. It was revealed that line wires 206RAH and N206RAH had gone slack, causing them to intermittently touch when blown by high winds, thus causing the line series relay to pick up and drop, turning the signal light on and off and giving it the appearance of a Flashing Yellow aspect.</p> <p>The line wire was tightened. The signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on May 12, 1995 at 12:30 AM.</p>									
18	7/16/1995	CSXT	AB			Train Z49115	Signal 272.1	Campbellsburg, IN	N
<p>On July 16, 1995, Train Z49115 reported the signal at the 272.1 M.P. was displaying a clear signal north and south.</p> <p>The signal system was removed from service. Signal personnel investigated the incident and discovered the control wire for Sycamore Street crossing was wrapped with HD control for Signal 272.1.</p> <p>Line wires were unwrapped, operational tests completed, and signal system was returned to service.</p>									
503	8/4/1995	GTW	AB			5858	Block Line	Shaftsbury, MI	N
<p>Severe storm conditions toppled trees into pole line, resulting in damage to signal control wires. On August 4, 1995 at 0200 hours, GTW train 456B, Extra 5858 East reported PROCEED indication (GTW Rule 281) at ABS signal 2312 and PROCEED AT RESTRICTED SPEED indication (GTW Rule 290) at signal 2344. Fallen tree at MP 233.0 forced signal control "H" wire to make contact with signal control "D" wire. Trees in pole line in advance of signal 2344 had broken "H" and "D" wires, causing Red aspect at signal 2344.</p>									

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
518	9/28/1995	SEPA	AB				Open Wire Pole Line	MP 17.5 to MP 18.6, Neshaminy Line	N
<p>Nature of Failure: Engineer reported passing NB automatic signal #71 displaying CLEAR and approaching next NB automatic signal #73 displaying STOP AND PROCEED.</p> <p>Cause of Failure: Inspection of pole line conditions revealed open line conductors 73H, 75CX110 and 72A were crossed due to vegetation growth. In addition, investigation revealed single conductors at a line drop to a terminal box were bare in a bridle ring above the terminal box, grounding circuits 73H, 76H and 75CX110 and shorting an isolation transformer located at #72 automatic signal feeding 76H circuit and 75CX110.</p> <p>Corrective Action Taken: NB automatic signals 71 & 73 and SB automatic signals 76 & 72 were placed in their most restrictive condition. All brush and vegetation were removed, line wires were realigned and affected conductors in line drop were replaced. Isolation transformer feeding energy to 76H circuit was also replaced. System was tested and returned to service.</p>									
32	11/12/1995	NS	CTC			8592-6520	Poleline	Bradshaw, WV	N
<p>At approximately 1:40 AM, Train No. Q16U710, traveling westbound on the Dry Fork Branch, reported they observed intermediate signal I-125 change from RESTRICTING to CLEAR for about a minute and a half then go to APPROACH. This occurred as light engines running as Train No. 960U7 were reportedly passing the controlled signal ahead at Bradshaw, MP I-11.5.</p> <p>Signal personnel were called to investigate and upon arrival were unable to duplicate the problem. However, it was observed that the pole line was storm damaged at five locations between Mileposts I-11.5 and I-12.5. Line wires that controlled the aspect of signal I-125 were either shorted or broken. Five trees were then removed from the line, and the wires were repaired. All involved equipment was tested and an operational check was made on the signal. The signal system was found to be operating properly and was released for service.</p> <p>Analysis of the line wires damaged by the fallen trees indicated that possibly leakage through the wet trees laying across the line could have conducted enough current to have picked the 125 HD relay. This condition would only have been a possibility while the OS circuit at Bradshaw was de-energized which it was for about a minute and a half while Train 960U7 was passing. It was concluded that the factors present could have caused signal I-125 to display a false proceed aspect.</p>									
3	12/1/1995	BNSF	CTC			1-4108-1	Int. 1248.2	Radnor, MT	N
<p>A tree fell into the poleline at MP 1247 causing the D and DD to become wrapped. This caused the signal at 1248.2 to upgrade from Flashing Yellow to Green. Train crews reported next signal (approach to West Radnor) as Yellow and West Radnor as Red over Lunar. Although braking distance was okay for these signals, the fact remains that signal 1248.2 should have been FY for this movement. Line wire wrap removed and signals returned to service.</p>									
542	12/30/1995	GTW	APB			6419	Block Line	Kingsbury, IN	N
<p>High wind conditions caused signal control wires to wrap. On December 30, 1995, at 22:30 hours, GTW train 172 East following behind train 144 East reported that ABS signal 75.4 went from a RESTRICTED SPEED indication (GTW Rule 290) to a PROCEED indication (GTW Rule 281). Split arm damaged by tree at MP 77.2 forced signal control wire "H" wire to make contact with signal control wire "D."</p>									

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
546	1/17/1996	SP	AB			Amtrak No. 14	Signal 344	Benicia, CA	N
<p>On January 17, 1996 at approximately 10:03 PM, the Martinez Bridge Operator reported that Amtrak train no. 14, traveling east, went by signal 344 and that the signal remained Green after the train had passed and was still occupying the track circuit immediately behind signal 344.</p> <p>Under the direction of the Signal Supervisor, the signal system was thoroughly tested. The cause of the problem was found to be that tree branches were pushing down on the line wires causing the wires to wrap. The trees were removed, the wrap was undone and the slack wire pulled tighter. The signal system was again inspected and tested and found to be working as intended with no exceptions.</p> <p>The signal system was returned to service on January 18, 1996 at 6:47 AM.</p>									
552	1/28/1996	CR	AB			Train HLPR 40E, En	Automatic Signal 752	Atwater, Ohio	N
<p>Engineer on HLPR 40E reported that automatic signal 752 displayed a CLEAR aspect with a train occupying the block. Train moves were simulated and at no time could this condition be re-created. Upon investigation, wrapped live wires were found at mile post 75 due to tree in pole line. Tree was removed, all signal components tested and inspected. A 24-hour watch was placed on signal 752 with no exceptions taken and signal system was returned to service. A recording device was installed at signal 752 to monitor the location. Also circuit changes are being made to eliminate the pole line involved.</p>									
63	5/20/1996	BNSF	AB			177J68	Signal S238.2	Mt. Pleasant, IA MP 238.2	N
<p>Train 177J68 following train 492 had a Red signal S238.2. Signal S238.2 then went to Yellow for a few seconds and then to Green. Investigation found the "D" control wire crossed on the pole line with "D" wire for the north track due to tree limbs blown into pole line by storm. Tree limbs were removed and circuits tested for proper operation.</p>									
560	6/1/1996	CC	AB			2002	FP	West End Duncombe	N
<p>Number 51's train 2002 reported CLEAR at the west end of Duncombe with no. 50's train at MP 370.</p> <p>50 reported CLEAR eastbound Lake Ole MP 369 Red cab, then CLEAR at 368.5.</p> <p>Cause was found to be a storm damaged pole and crossarm (hit by lightning) holding pin 4 H wire into pin 5 H wire at MP 368.</p> <p>Maintainer cleared line and tested system.</p>									

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104	7/17/1996	UP	AB			HOCHT-16	None	Glenwood, Illinois	N
<p>On July 17, 1996, at approximately 1840 CDT, on the Chicago Subdivision, the northbound HOCHT-16 accepted an APPROACH aspect at signal 250, Milepost 24.9, on the northward main track and proceeded north stopping short of the northbound UGCCH-17 stopped ahead in the block.</p> <p>An investigation revealed that a tree had fallen through the pole line at Milepost 22.3 wrapping the northward HD wires with the HD wires for the southbound main track and energizing the northward HD wires falsely.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									
89	9/17/1996	CSXT	APB			N/A	Pole Line Control Wires	Signal 2655, Salem, IN	N
<p>On September 17, 1996 a credible report was made that northbound signal at M.P. 265.5 was displaying a CLEAR as a southbound train was approaching a CLEAR southbound signal.</p> <p>Signal system was removed from service.</p> <p>Signal personnel performed operational test and determined that a tree had fallen into the pole line at M.P. 259.0 causing the control wires for signal 2655 to become wrapped with a crossing signal start circuit.</p> <p>Repairs were made, signal system functioned as intended.</p> <p>Signal system was returned to service.</p>									
577	11/30/1996	CC			ATS		FP-CL	East Absolute C.L. Signal, Mills Siding MP 323	N
<p>False proceed signal; absolute signal east end Mills Siding.</p> <p>On 11/30/96 at 1:40:00 eastbound train UUPWF04 holding main line west of the siding switch Mills observed Green aspect on eastbound absolute signal with westbound train WFLD29 in the block between Macy and Mills siding. The Green aspect was observed two different times at 15 sec. each time then returning to Red aspect.</p> <p>Signal department upon arrival recreated the false proceed indication. Further tests produced cause of false proceed as follows: Wood pin holding common line wire on pin 6 of pole line at MP 323.6 was broke and touching pin 9 550 volt supply line. This caused 3232 H relay to burn up fusing contacts causing 3238H to be energized.</p>									

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111	2/24/1997	BNSF	AB			SP 8027 Eng, ICXCI	Signal 1617	Crowley, LA	N
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Upon arrival found approach signal 1617 was Green with train on mainline between switches at Crowley and east spring switch reverse for siding. Head in signal 1639 was Red with signal 1617 Green. All signals involved placed to STOP. Inspection revealed trees had fallen through the pole line and had several wires wrapped together causing signal 1617 to be false cleared with foreign battery. Trees were then cleared, pole line repaired, signals put back on line and all tested OK.

112	4/4/1997	BNSF	CTC			C-TPRR1-04 Engin	None	Augusta, Kansas	N
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On April 4, 1997, at approximately 1510 hours, UP coal train C-TPRR1-04, UP engine 9552, was traveling westbound on the north track of the Emporia Subdivision, Kansas Division, approaching the east end of Augusta Siding MP-183.21 when they reported the 2R signal pumping from Yellow to Flashing Yellow and back to Yellow with the next signal at CP-1853 Red to the Soc in Schaumburg, Illinois. The weather was windy, cold and raining.

The train was advised to stop short of the signal. Signal 2R was taken down and the crew advised to wait for the arrival of Supervisor Signals. Interviewed the crew and advised the dispatcher that they could flag signal 2R. This route was taken out of service until testing could be performed.

The incident was investigated by Supervisor Signals and Signal Maintainers. Signal 2R at the east end of Augusta was requested and displayed a Flashing Yellow aspect with the next signal at CP-1853 Red. Further investigation revealed that the NWMR relay at the east end of Augusta was energized with the 2RAHDP relay at CP-1853 de-energized. This allowed signal 2R to display a Flashing Yellow.

The battery end of the NWMR circuit was opened at CP-1853 and there was still approximately 10 volts DC on the circuit from an external source. The poleline was walked and a line wrap was discovered between the number 5, top arm, track side position and the number 5, bottom arm, track side position with the number 4, top arm wire laying against the number 4, bottom arm wire at approximately MP-184.64. The top arm 4 and 5 track side circuit is NSWXRN and NSWXR respectively. The bottom arm 4 and 5 is NWNRN and NWMR respectively. The NSWRX circuit is a 10 volt DC wrap for the Custer Lane crossing at MP-184.64 that is normally energized. The wires were sagging account of an imbalance on the east side of the double arm which allowed the track side west to become slack.

The wrap was removed, an arm guy installed and the slack taken out of the wires. All energy was removed from the NWMR circuit and the signal 2R now displayed a Yellow aspect. The signal was tested including cross and grounds and returned to service at approximately 1930 hours. The NWMR and NSWXR circuits were staggered to prevent a similar occurrence in the future.

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136	7/19/1997	CSXT	CTC			Q591-18	None	S.E. Ames, Ames, IN	N
<p>On July 18, 1997, southbound train Q591-18 was located between the switches at the south end of Ames. The south bound signal was STOP and the train crew observed the north bound signal to be APPROACH. The train was held in position until signal personnel arrived. The signal personnel confirmed the false APPROACH indication.</p> <p>Upon investigation, the signal personnel found the line wire one span north of the north bound signal wrapped. The XC circuit and the 149.6CHD were wrapped, thereby placing 8.8 volts reverse polarity to the north bound signal.</p> <p>The north bound signal went to the proper Red aspect when the wires were unwrapped.</p> <p>The signal personnel were unable to duplicate the problem after clearing the line wrap. The south bound signal continued to stay at Red. After further investigation, signal personnel found the CHD wrapped with the line common at MP 152.2 and MP 152.5. Clearing these wraps cleared the Red southbound signal. The signals were returned to service after testing for proper operation and found to be functioning properly.</p>									
584	7/25/1997	CR				Train ML 420, Engi	Auto Sig 254S	Northumberland, PA	N
<p>Southbound ML420 reported automatic signal 254S displaying CLEAR with home signal ahead at CP-Norry displaying STOP.</p> <p>Cause was found to be North and South signal control wires shorted with 120volt AC line to ground due to trees fallen into pole line at mile posts 255.7 and 255.8.</p> <p>Trees were removed, signal system tested and restored to service.</p>									
117	8/6/1997	BNSF	AB			SSW8089 East	Signal 1660	Crowley, LA	N
<p>Train 7290 west was in the siding at Crowley with train 7952 west pulling into the siding behind the 7290 west to meet east bound train SSW 8089. The 7952 west was too long and several cars were hanging out on the main line at the east end of the siding. Train SSW 8089 reported that when he approached and passed signal 1660 at the west end of the siding the signal 1660 was Green and when he arrived at east end signal 1639 was Red. Signal Supervisor was called and placed the signals to STOP until all trains had departed. When reenactment was done signal 1660 assumed the correct Yellow aspect. All circuits and relays were tested with no exceptions poleline was walked and line wrap was observed at mile post 164.2 account trees in the line. The wrap was between BL10 and WPC control wire, which is the pole changer from Yellow to Green at signal 1660. Even though circuit wasn't failing at time of inspection when wires were pressed together signal 1660 did change to the Green position. This failure was reproduced for the local trainmaster and we think the line wrap was the cause of the reported false proceed. The line wrap, trees, brush and BL10 were removed and all signals restored and tested OK. We will install Electrocode in this area immediately to preclude this from happening again.</p> <p>The SSW 8089 had authority in the Midland Block and was not authorized in the Crowley block. The SSW 8089 had to stop at the east end of Crowley due to no authority in the block and therefore there was no chance of a collision.</p>									

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139	8/13/1997	CSXT	APB			Q564-13	None	Mitchell, IN	N
<p>On August 13, 1997, north bound train Q564-13 occupied the main line between the switches at Mitchell in preparation for a reverse move onto the Indiana subdivision. After stopping short of the north end of Mitchell, the train crew observed the south bound semaphore signal at the north end of Mitchell indicating an APPROACH aspect into their occupied block. The train continued on its route and notified the dispatcher. The signals were removed from service and signal personnel dispatched to investigate.</p> <p>Signal personnel simulated the train movement and observed the south bound at the north end of Mitchell display a Yellow aspect. Investigation revealed that a line wrap with bare wire and heavy brush and rain had caused the false proceed. The negative lock control line wire (L5RGPN) wrapped with HD circuit wire 255.1HD1. The line wrap was combined with a ground due to the brush to give the false proceed.</p> <p>This segment has FRA approval for abandonment. After the line wrap was cleared, the coil wires for all signals were removed and DTC operation was put in place.</p>									
592	1/5/1998	CC			ATS		FP-CL	East Absolute C.L. Signal, Lake Oley	N
<p>False proceed signal east absolute C.L. signal Lake Oley.</p> <p>On 1/5/98 at 20:12:00 EB train I12 reported a cab and field signal CLEAR 5 car lengths west of Lake Oley and did not drop Red until the westbound was at Best Wall switch at MP 371.7. The WB CC2000 train reported CLEAR signals from Dumcombe to first Red at 371.7.</p> <p>There were 2 H wires wrapped together at MP 372.1. The insulator was broken possibly due to the ice, which caused the wires to wrap. Trouble cleared at 22:45.</p>									

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180	1/12/1998	BNSF	AB			UP-INOLB1-11	Signal 1745	Midland, LA	N
<p>At approximately 10:30 AM a westbound crew on Union Pacific train INOLB1-11 near Midland, Louisiana reported they were at signal 1745 on the main track near the east side track switch with a Green signal which should be Red account an east bound train had left the west switch reversed after they previously cleared the main for a meet.</p> <p>The train crew verified the switch was still lined for movement to the side track and reported to the dispatcher that signal 1745 was false cleared over the reversed switch. With that operations were suspended in the area and signal personnel notified.</p> <p>Relief Signal Maintainer and Signal Inspector responded immediately to the call and interviewed the crew for pertinent information, with Signal Supervisor responding to help with the investigation and corrections as needed.</p> <p>Investigation revealed a large willow tree had been blowing into the pole line during the storms that day causing the 55PC line wire to be hard wrapped with the 45G7 signal control wire spanning out the 1NWPR switch repeater contact thereby false clearing signal 1745.</p> <p>The line wires were unwrapped, the trees and brush were cut, the pole line inspected for other possible wraps, signals tested and placed back in service with all ok.</p>									
594	1/14/1998	INOX		Automatic		3802	Approach Signal #8	Liberty Center, OH	N
<p>It was reported by the train crew on train no. 261-14 that they received a Green approach signal northbound at signal #8, MP 82.22 into a Red-over-Red home signal at the interlocking. This was confirmed by the signal MTR who was near the interlocking at the time of the report. The signals were taken out of service and the incident was investigated by both RailTex and RCL personnel. After the signal, MTR duplicated the false proceed by placing a shunt in advance of the approach and witnessing the Green into a Red. Further attempts to duplicate the incident failed. The pole line was walked out and at MP 82.9, it was found that the 8HR1 and 8DR1 were untied on the pole and nearly touching by means of a tie wire. This would cause both the 8DR and 8HR relays to be energized simultaneously, causing a Green into a Red.</p>									

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192	3/10/1998	NS	CTC			UP 2961	Poleline	Sidney, IL	N
<p>At approximately 8:55 PM, westbound train No. 71 reported the distant signal to East Sidney, displayed ADVANCE APPROACH and the East Sidney home signal displayed STOP. The 325.8 signal should have displayed APPROACH because East Sidney had not been lined for No. 71's move due to train No. 409 working between the switches at Sidney.</p> <p>Signal personnel called to investigate confirmed the ADVANCE APPROACH aspect into a STOP. This was caused by false energy on the 3258BH relay that controlled the bottom yellow. The false energy was the result of a line wrap between the 3258BH wire and the 32695TP wire at milepost B-327.1. Though the two line wires were tight and tied-in, we suspect the 50 MPH + wind gusts on the previous day had blown something into the line resulting in the wrap. The wrap was removed, the signal system verified to be working as intended, and signals were returned to service at 12:45 AM, 3/11.</p> <p>To keep this from recurring, the ADVANCE APPROACH aspect has been eliminated on this signal. Instead of getting an ADVANCE APPROACH when East Sidney is APPROACH, signal 325.8 will repeat the yellow at East Sidney. This is a temporary fix since the poleline is to be eliminated and aspects will change in conjunction with a new NS/UP connecting track to be installed here in the near future.</p>									
193	3/16/1998	NS	CTC			8945-6678	Poleline	Clymers, IN	N
<p>At approximately 3:45 PM, train No. 183, running westbound, reported receiving a CLEAR signal at the East End Clymers and then a STOP signal at the West End Clymers. Being in radio contact with opposing train D93 west of Clymers, they were aware of the false signal and were able to stop before passing the STOP signal.</p> <p>Signal personnel were called to investigate and found from TC loggers that there was an indication of a westward signal lined at West End Clymers, not requested by the dispatcher, at the time that train 183 saw the CLEAR at East End Clymers. In the field, the same scenario was set up and proved that a westward CLEAR was displayed at East End Clymers while a STOP was displayed at West End Clymers. The cause was a falsely energized 500 ohm relay (LAYGP) at West End Clymers which resulted in the improper pole change back to East End Clymers. The relay was falsely energized by three volts caused by two separate line wraps in two different spans within the plant at West End Clymers. The LAYGP also tumbled down the eastward signals on train D93 and gave the false indication of a westward signal at West End Clymers.</p> <p>The wraps were corrected and the system retested to verify proper operation. The line wires involved were properly slacked and tied in. It was suspected, but never proved, that a truck hit a pole and caused at least one of the wraps. High winds in this area on previous days were suspected of causing the first wrap. Neither wrap on its own would have caused this problem.</p>									
185	7/27/1998	BNSF	AB			MDENGAL3 - Engin	Pole Line Wire	Ottumwa, Iowa	N
<p>Train MDENGAL3-26 reported signal S277.8 Green and signal S275.6 Red as he was following an eastbound train. Signal Supervisor, Signal Inspector and Signal Maintainer placed shunts to simulate the train position and discovered that the "D" upgrade circuits for the north and south tracks were crossed. Further investigation revealed that a tree limb had fallen into the pole line at MP 277 causing a wrap in the north and south track "D" wires. The line wrap was removed and circuits tested again with no further exceptions taken.</p>									

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197	8/5/1998	NS	CTC			3537	Poleline	Leipsic, OH	N
<p>At approximately 11:10 PM, eastbound train No. X10 reported receiving an ADVANCE APPROACH indication at intermediate signal 3156 and then a STOP at Leipsic home signal, MP B-311.4, which is the I&O interlocking. The engineer was able to stop short of the home signal at Leipsic. They had been running at restricted speed due to a storm caused code line outage. Signal 3156 should have been displaying APPROACH since it was an automatic signal. The home signal was at STOP because of the code line outage.</p> <p>Signal personnel called to investigate were able to duplicate the problem and determined that the B3156HR relay that controlled the bottom yellow aspect was falsely energized with 6 volts across the coil. The 6 volts was found to be coming from a combination of several line wire wraps and grounds that resulted from damage from a severe storm which was passing through the area at the time. The voltage ultimately came from the 3156NHD line wire that was normally separated from the B3156H wire by no fewer than two wires fed by different battery. It was only through such an unlikely combination of poleline faults that this problem could have occurred.</p> <p>The bottom yellow on the 3156 signal has been disabled until the poleline gets configured to prevent a recurrence. Other signal aspects were returned to service by 8:00 AM following poleline repair and appropriate tests.</p>									
211	8/7/1998	UP	CTC			UP00159	None	North Riverside, MO	N
<p>On August 7, 1998 at 13:30 CDST, on the De Soto Subdivision at North Riverside, Missouri, southbound LSE57-07, at Mile Pole 26.30, observed a CLEAR southbound signal at CPD026, and a Red southbound signal at CPD027.</p> <p>An investigation revealed that a line wrap in the HD circuits between D026 and D027 allowed the 61H and 61D relays to pick up falsely at D026.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									
187	8/25/1998	BNSF	AB			SCLOLCB-524 We	Pole Line	Adamana, AZ	N
<p>The SCLOLCB-524 west was approaching intermediate signal 2391 which was displaying a Flashing Yellow aspect. The VMCLAC-122 was in advance of signal 2391 approximately 1/2 mile occupying the block controlled by signal 2391. The SCLOLCB-524 was able to stop without incident.</p> <p>The cause of the failure was due to trees in the pole line crossed the PCR circuit with the HDR circuit falsely energizing the circuit.</p> <p>Correction: The trees were removed from the pole line restoring the system.</p>									

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200	12/4/1998	NS	AB			9003	Poleline	Foristell, MO	N
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At approximately 12:10 AM, train #256 with crew consisting of Engineer, Student Engineer, and Conductor were eastbound at West End Foristell when they observed the eastward signal go from RESTRICTING to CLEAR. The next signal, at East End Foristell, was then observed to be displaying APPROACH. The preceding train, #282, was in the block ahead of East End Foristell and, hearing #256 call these signals over the radio, contacted #256 to confirm the calls. Train #256 then aware that the signals had malfunctioned, slowed in sufficient time to avoid #282 and reported the problem to the Berkeley Operator.

Signal personnel were advised of the situation, investigated and were able to duplicate the problem. The cause was traced to a line wire wrap at about milepost S-50. A three wire DC HD line wire signal control system is employed in this territory. The wrap was between the opposing signal HD wires and did not involve the common. The condition resulted in a more restricting signal for the first train, #282, but when that train occupied the second of two track circuits in the block, a path was set up by the wrap that gave a false APPROACH aspect on the East End Foristell eastward signal into the block that [unintelligible] was what #256 had observed.

The wrap was cleared and the signals were tested for normal operation. Though not confirmed, it is likely that brush clearing activities the previous day had caused the wrap.

624	10/22/1999	CC	APB				FP	Sioux City, Iowa	N
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Yard employee reported westward signal at MP 507.4 was CLEAR with a cut of cars observed 20 car lengths west of signal.

Failure was caused by a metal crossarm brace that had fell across the WBH and Com line wires energizing the WBH relay causing the westward signal to display a CLEAR indication.

Corrective Action: The crossarm brace was removed from the pole line wires.

626	2/9/2000	CN		Remote			Signal Wires	Wellsboro, Ind.	N
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At 05:30 on 2/9/00 a CN train approaching the interlocking at Wellsboro, Indiana, South Bend Subdivision MP 71.1 reported that westward home signal WB2w had a CLEAR aspect when the crew knew that the signal should have been APPROACH. The investigation of the signal system found that the root cause of the false proceed was intermittent foreign voltage on the "H" control wire. The foreign voltage was traced back to a short on the line. The wrapped wire was removed and all circuits tested.

Remedial Action: All control wires will be inspected monthly.

Note 1: Locomotive number unknown, train crew notified FRA.

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
225	4/24/2000	BNSF	CTC			BNSF 4970, ZWSP	Line Wire and Inverter	Kernan, IL, Signal 811	N
<p>Train ZWSPNBY9-24B, Engine BNSF 4970, operating westward on main track No. 1 approaching control point at Kernan went by the approach signal at MP 81.64 (Sig 811) displaying APPROACH MEDIUM. The home signal at Kernan was at STOP. The Signal Supervisor and two Maintainers responded and put all signals to STOP. Investigation revealed that a 480V AC wire had come untied from its insulator with the tie wire still attached to it. The high winds blew the 480V AC line wire off the crossarm and it dropped down to the area of the secondary arms below. The tie wire that was still attached to the 480V AC line wire allowed it to touch the "NMR" line wire. When this happened, the 480V AC fed back into the control point, burning up an inverter, causing a ground on the battery that feeds the "NMR" circuit. The ground allowed current to bypass the circuits at Kernan and energize the "NMR" relay at Signal 811, causing it to display APPROACH MEDIUM. The linewire was restored to its insulator, the inverter was replaced and signal system tested for proper operations and returned to service.</p>									
262	7/21/2000	NS	CTC			NS 7136	Pole Line	Milton, PA	N
<p>At 9:30 a.m., July 21, 2000, southbound train #H46 received a CLEAR signal, southbound at CP South Fair into a STOP AND PROCEED aspect at automatic signal 247S. Dispatcher notified of incident.</p> <p>Investigation of this incident revealed three separate trouble areas. These three conditions were a grounded code line (L-) wire at MP 246.1, a grounded line drop at Cameron Street, Milton, PA on the negative EHD line wire, and a dead comm line wire that was making contact with both the positive EHD and code line (L+) wires at MP 246.6.</p> <p>The above conditions caused false code line voltage to be applied to the HD resulting in a CLEAR aspect at CP South Fair into a STOP AND PROCEED at signal 247S. The dead comm wires were removed from both code line wires and the signal control wires and the grounded line drop cable has been replaced.</p>									
245	8/2/2000	CSXT	AB			None	WB Int., Signal #43	Westport Branch, Baltimore, MD	N
<p>On August 2, 2000, FRA officials observed westbound color light intermediate signal #43 displaying an APPROACH aspect (Yellow) with a local freight train in the block ahead. Signal 43 should have displayed a RESTRICTING aspect (Red). The signal was removed from service and Train Control personnel were dispatched.</p> <p>The cause was found to be pole line wires which had been pulled down by a large tree that fell across the line wires. The insulation on the wires was damaged, and the bare HD wires were shorted together.</p> <p>The pole and line wire were repaired, signal and switch checks were made with no exceptions, and the signals were returned to service. The cause was determined to be external damage from the tree to the pole line wire.</p>									
643	8/7/2000	CN	AB			CN2540	Signal 1063	Mishawaka, IN	N
<p>A tree had fallen on the pole line near Fir Rd. at milepost 105.8 on the Southbend Subdivision. The "H" wire and "D" wire crossed causing the signal to be falsely cleared. This was reported by CN 2540 at 0130 on August 7, 2000. The tree was removed, the line wire was repaired, and signal was tested and back in service on August 7, 2000 at 0600.</p>									

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
247	8/20/2000	CSXT	AB			CP522	CP9 SB Sig., #2 Track	Tonawanda, NY	N
<p>On August 20, 2000, the train crew on southbound CP 522 observed the southbound signal on #2 track at CP9 displaying an APPROACH MEDIUM aspect with a STOP aspect at the next signal at CP8. The signal at CP9 should have displayed an APPROACH aspect. The signal was removed from service and Train Control personnel were dispatched.</p> <p>The cause was found to be open line wires which were twisted together by a tree leaning into the pole line.</p> <p>The tree was cut away, line wire was repaired, signal and switch checks were made with no exceptions, and the signals were returned to service. The cause was determined to be external damage from the tree to the pole line wire.</p>									
248	8/24/2000	CSXT	APB			J769-24	Int Signals 762 & 738	N.E. Rensselaer, Rensselaer, IN	N
<p>On August 24, 2000, the train crew on northbound Train J773-24 was clearing the main into the siding through a reversed switch at MP Q72.9 in order to allow northbound Train J769-24 to pass. While the switch was still reversed, J769-24 received a CLEAR signal at Q76.2 (which should have been APPROACH) and a CLEAR signal at Q73.8 (which should have been STOP). The signals were removed from service and Train Control personnel were dispatched.</p> <p>The cause was found to be an open line wire wrap of the CHD wire (part of the 3-wire HD circuit) and CE1 positive battery wire (part of the approach circuit between the Rensselaer siding switches). The line wrap was removed, signal and switch checks were made with no exceptions, and the signals were returned to service.</p>									
285	12/9/2000	UP	AB			Unknown	None	Houston, TX	N
<p>On December 09, 2000 at 3:34 CST in Houston, Texas on the Strang Subdivision, northbound YGP7208 reported the northbound intermediate signal at MP 1.8 was Green into a Red northbound signal at MP 104 (tower 88).</p> <p>An investigation revealed two pole line wraps that false energized the 02GCP D line wire and allowed the signal at MP 1.8 to display a Green aspect.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									
665	5/9/2001	DH	AB				Signal 588.6A	MP 588.6, Afton, NY	N
<p>Su2 was stopped at CPF590 on the controlled siding with train #550-08 stopped behind them at signal 588.6 waiting for a northbound train. CPF590 was cleared north on the main track. Train 550-08 had reported that signal 588.6A (southward approach to CPF590 on the main tk) was going from Red to Green. Su2 reported CPF590 staying at STOP. The cause was overhanging tree limbs at MP 589.2 wrapping line wires #3 and #4 on the middle crossarm. Pin #3 is 29LAHD and Pin #4 is 116.2CHD. This condition had signal 588.6A going Red to Green. After the line wires were unwrapped to clear the problem we had then resimulated the problem by putting the wires back together. The signals were returned to service at 13:14 hrs on 5-11-01.</p>									

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
292	7/25/2001	BNSF	AB			C ATMMAS1-03, E	Poleline	New London, Iowa	N
<p>Train C ATMMAS1-03 stopped at Red Sig S220.6. There was a train in the block ahead, stopped at Sig S218.8. When the train ahead moved out of the block ahead, Sig S220.6 went to Green instead of Yellow. The Signal Supervisor and Maintainer were notified to perform tests and inspections at the location. The tests revealed foreign battery on the SD wire for Sig S220.6 caused by a cross between SD and ND on the poleline. A pole had fallen over and twisted, allowing the line wires to sag to the brush and weeds, causing the crossed battery. There had been rain and the weeds and brush were wet allowing current flow. The pole was repaired, the system tested for proper functioning and returned to service.</p>									
295	8/26/2001	BNSF	CTC			Z-KCKRIC1-26A M	Line Circuits were Wrapped	Kansas City, Kansas	N
<p>Crew of Z-KCKRIC1-26A westbound on Main 3 proceeding on Green/Red at Holiday MP 13.5 reported seeing a Yellow/Green at Int. MP 12.8 Main 1, and analyzed that the aspects display would be a conflicting route to their route at West Holiday MP 14.40. They reported situation to dispatcher and dispatcher had the westbound SCWSLBP1-25, who had not reached Morris MP 11.0, proceed prepared to stop at signals 12.8 and at West Holiday. This train crew saw the Yellow/Green at MP 12.8 and had a Red/Red at West Holiday Main 1. Signal forces were able to duplicate the Yellow/Green aspect at MP 12.8 and Red/Red at West Holiday. Line wraps in the 21 LGRN-NWBP1, 21 LGR-NWDP1 and 24 LMRN-NWBP circuits discovered and removed. ACG/DC to DC converter also added to isolate batteries on 21-LGR and 21-LGRN circuits. Line wraps due to storms in area and problem intermittent. All circuits tested and signal system returned to service.</p>									
330	9/10/2001	UP				UP4341	None	Templeton, CA	N
<p>On September 10, 2001 at 15:42 PDT, at Templeton, CA on the Coast Subdivision, southbound QRVDO 10 on the main track reported the southbound signal at MP 216.4 was Green, and the next southbound signal at the North End of Templeton at MP 217.6 was Red.</p> <p>An investigation revealed a line wrap at MP 217.0 that caused the Green signal at southbound signal at MP 216.4.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									
682	11/21/2001	CR	AB			NS69T, 5412	143 SIS	Detroit Line	N
<p>Train NS69T engine 5412 reported signal 143 at CLEAR G/R and interlocking signal at FN Tower STOP R/R. Upon investigation, a maintainer found a pole down and tried to straighten it. In doing so, we believe he cleared a line wrap, which caused the HD relay to be falsely energized. When the supervisor arrived on the scene, he tried to recreate the problem, but he could not.</p>									
685	12/17/2001	CN	CTC			CN 5780	Approach Signal	Flint, MI	N
<p>At 02:00 on 12/17/01 eastbound train with leading engine CN 5780 had an APPROACH MEDIUM aspect at signal 2676 on the Flint Subdivision, this aspect was less restrictive than APPROACH aspect the engine crew should have received. When investigating the cause of the discrepancy, it was found that two line wires had come in contact with each other at MP 269.27 (Pins 4 and 5). This failure caused voltage to be present on the "B" mech. Control coil.</p> <p>Corrective action was taken by separating the line wires, and making repairs to pin 5.</p>									

Report #	Date	Reporting Carrier	Block System Narrative	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
365	7/19/2002	UP	AB			NS 8971	None	Fairbanks, TX	N
<p>On July 17, 2002 at 08:30 CDT, at Fairbanks, TX on the Eureka Subdivision, northbound MHOFW 19, on the main track at MP 7.60, reported that the northbound signal at MP 6.70 was Green, and the next northbound signal at MP 7.6 was Red.</p> <p>An investigation revealed that a line wrap which caused the signal at MP 6.70 to be Green rather than Yellow.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									
374	12/22/2002	UP	AB			AMT510	None	North King City, CA	N
<p>On December 22, 2002 at 23:19 CST, in North King City, CA, on the Coast Subdivision, southbound AMT11-20, on the main track at milepost 157.80, reported the southbound signal at MP 157.8 displayed a Green aspect and the next southbound signal at MP 159.20 displayed a Red aspect.</p> <p>An investigation revealed the HD line north, the HD line south, and the Common were wrapped at MP 159.2.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									
410	1/14/2003	UP	AB			UP 9252	None	Shreveport, LA	N
<p>On January 14, 2003 at 1342 CST, in Shreveport, LA on the Reisor Subdivision, northbound MSHFW 14, on the main track at mile post 315.80, reported the northbound signal at Hollywood, mile post 315.8 cleared when they had passed the signal, and were still in the block north of the signal.</p> <p>An investigation revealed that at milepost 316.0 a pole fell and caused a short in the signal control wires, which false cleared northbound signal at Hollywood Jct., MP 315.8.</p> <p>The pole line was repaired and all applicable tests were performed.</p>									

No. of Reports Shown in this Listing: **52**