



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Canadian National Railways

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
620	9/20/1999	CN		Automatic		N/A	Home Signal	Waltonville, Illinois	N
<p>Cause</p> <p>Narrative</p> <p>Phantom Signal - Due to Sun Angle</p> <p>Phantom signal created by sunlight on Green aspect of CN/IC home signal. Red lamp also burned out. Installation of snow shields and improving site distance for correction.</p>									
626	2/9/2000	CN		Remote			Signal Wires	Wellsboro, Ind.	N
<p>Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)</p> <p>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.</p> <p>Remedial Action: All control wires will be inspected monthly.</p> <p>Note 1: Locomotive number unknown, train crew notified FRA.</p>									

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
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627	2/26/2000	CN	AB				Signal 366.7	near Baton Rouge, LA	N
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Failed Equipment or Device - Track Isolation Unit

The report of an alleged false proceed signal at Mile 366.7 was left on the Viocemail system of the Signal Supervisor, by a trainmaster, at 02:43 hrs (26.FEB.00). The Acting Signal Supervisor checked the voice mail at 17:20hrs. (26.FEB.00). This voice mail stated that with a train south of signal 366.7, said signal was flashing from Red to Yellow.

The appropriate signals were removed from service.

On site inspection and testing, formally commencing at 00:30hrs (27.FEB.00), could reproduce the condition as reported. A defective Track Code Isolation Unit allowed a capacitor to supply voltage to, and cause the momentary pickup of the 3667 HR, hence displaying the Yellow aspect with the track occupied.

The Isolation Unit was replaced. The signal system was tested and found to be operating properly. The signal system was restored to service at 02:30hrs (27.FEB.00).

As part of an on-going upgrade of the signal system on the Baton Rouge District, the Trackcode in this area is scheduled to be replaced with Electrocode, the week of 06.MAR.00.

629	3/28/2000	CN		Manual			CL	E. Bridge Interlocking	N
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Human Error - Signal Circuit Design Error, Inadequate Service-Testing

Polarity of control wires for H2 mechanism (Signal 31) was reversed allowing said signal to display Green aspect in lieu of Yellow. (09:00, 28-Mar-00). Signal wires were restored and full operational tests were made (18:00, 29-Mar-00). Signal was found to have been wired according to circuit plans. Plan was in error and field corrections made. East Bridge Interlocking, New Orleans, LA.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
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634	6/6/2000	CN	AB			IC 1026	85 Signal	Cicero (Hawthorne), IL	N
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Human Error - Signal Circuit Design Error, Inadequate Service-Testing

At approximately 1100 hours on June 6, 2000, westbound train CHWL-06 reported that signal 85 displayed a Yellow aspect with the hand-throw switch lined reverse, within the block at Mile 8.8.

Signal 85 was removed from service by the Signal Supervisor. Upon arrival at the location, the investigation found that the location had not been vandalized or damaged and that the incident was reproducible.

On June 2, 2000 the hand-throw switch at Mile 8.8 had been placed in service. The crossover track circuits 1AXT and 2AXT had been inadvertently omitted from block repeater circuit 85BP, which allowed signal 85 to display an aspect less restrictive than intended when the crossover switch was lined reverse. The omission was not discovered during the in-service testing.

Corrections to the 85BP circuit were made to include the 1AXT and 2AXT in the block repeater circuit 85BP. The circuits were then tested to determine that they were operating as intended.

Signal 85 was returned to service at 1800 hours.

643	8/7/2000	CN	AB			CN2540	Signal 1063	Mishawaka, IN	N
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Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)

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.

647	11/2/2000	CN		Remote		Amtrak #51	8W Signal	Thornton, IL	N
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Human Error - Signal Circuit Design Error, Inadequate Service-Testing

8W signal displayed a SLOW CLEAR (R/G) into STOP (R/R) at UP home signal on the UP wye at Thornton Junction.

Cause: Wire/design error and insufficient testing at time of installation.

Corrective Action: Wire/design change to give a RESTRICTING signal (R/Y) at 8W to the UP wye track.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
648	11/5/2000	CN	AB			CN2415, CN5724	1614	Scotts, MI	N
<p>Cause</p> <p>Human Error - Field Wiring Error, Inadequate Service Testing</p> <p>On Sunday, November 5, 2000 at 1555 hrs, train M398-71-04 reported that ABS 1614 displayed a CLEAR with train E254-61-05 occupying the next block governed by ABS 1628. The ABS 1614 should have displayed an APPROACH. Failure to follow proper testing procedures resulted in this false proceed. A newly installed coded track circuit at ABS 1614 was miswired. The code 2 caused the signal to display CLEAR rather than APPROACH. The coded track circuit at 1614 was rewired and tested properly.</p>									
663	4/21/2001	CN		Manual		4601	36B Signal	New Orleans, LA	N
<p>Scenario Reenacted, Unable to Duplicate, No Defects Found</p> <p>On April 21, 2001 at approximately 11:10 a Union Pacific train crew AV07 went by 36B signal with an alleged CLEAR signal (Green over Red) and proceeded into the plant when he noticed 19 switch lined against them. The train crew notified the East Bridge Operator, and the operator said he hadn't pulled the lever to give them the signal.</p> <p>There was a BN train on the Public Belt track going up the Huey P. Long Bridge. He had the 31 signal lined and the lever still out. 20, 21, and 22 switches were already lined reverse for the UP crew AV07 but 18 and 19 switches were still lined normal.</p> <p>The Inspector arrived at about 13:10 and found 36B signal vandalized. All the hoods were knocked off and the lenses had been hit with rocks and were cracked. At this time the Red aspect could be seen, and not mistaken for anything other than a Red, from the Shrewsberry crossing just south of the signal. Inspector checked for grounds at the signal house, no grounds found. He went over the steps the operator had taken that morning and attempted to reenact the incident. The 36B signal remained Red. When 18 and 19 switches were normal and the operator cleared 36B signal, the inspector reported the signal was Yellow over Red. Then the operator lined the route up to the bridge, 18 and 19 switches lined reverse and called for the 36B signal. 36B was Yellow over Red. All circuits were clear going up to the Huey P. Long Bridge and no grounds were found at East Bridge. The reported incident could not be reproduced. Due to excessive vandalism at this location, on April 25, 36A and 36B signals and the cable were replaced for precautionary reasons.</p>									
685	12/17/2001	CN	CTC			CN 5780	Approach Signal	Flint, MI	N
<p>Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)</p> <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	Interlocking System	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?	
			Cause							
			Narrative							
690	5/14/2002	CN	CTC			IC 1116	SB Signal, Trk 1, Skip	St. Charles, LA	N	
			Failed Equipment or Device - Electrical Ground (not in underground or aerial cable)							
			Signal Supervisor was notified at 20:15. M320 train reported a false proceed at Skip. The approach signal to Skip was APPROACH DIVERGING and went to APPROACH then back to APPROACH DIVERGING. The signal aspect at Skip was Red over Flashing Red, then to a DIVERGING CLEAR, and back to Red over Flashing Red. Crew M320 knew that TL James crossover was Red lined against his movement, due to an empty grain train going through to track 2.							
			The Supervisor and Inspectors arrived at Martin Jct. and the signal was Red over Red over Red. They checked for grounds on the battery busses and found a 12mA negative ground on the B12 buss with AC power on, with the AC power off it read 500 mA. They lined the switch on track one for the TL James crossover Red. The Code 2 was lost going to Skip on the EC 4H unit, sending only a Code 1 and 5, but every few seconds the Code 4 would light up and stay on about 6 seconds then drop back out.							
			The ground was on 5RC and 5RA signal head. Any time the 5RALOR relay was down it would not produce a Code 4. If the 5RALOR was up with the 5RCEN or 5RCRE off it would not produce a Code 4. With a switch lined you dropped out the ANWPR which dropped the 1NBPR that took the path away from your reference to Code 4 with the relay down. The negative 12mA ground was making the unit think it needed to send a Code 4 out, which was why the DIVERGING CLEAR was falsely produced at Skip. It should have been a RESTRICTING signal, Red over Flashing Red because TL James crossover was lined Red. The cable to the 5R signal was megged. They found the 5RAEN and 5RCEN grounded. The signal heads were removed and the wires were repaired. They megged and tested the signal system, and it was placed back in service at 14:30, 5/15/02.							
694	6/21/2002	CN	AB			IC 6124	Signal 415.4	Gramercy, LA	N	
			Maintenance - Switch Fouling Wires Missing, Broken, or Ineffective							
			IC train 316 on June 21, 2002 reported a false aspect at signal 415.4, Gramercy LA, Baton Rouge Subdivision. The switcher was shoving cars in the north end of Mt. Airy siding. When the switcher cleared the switch and was in the fouling section, the switch was then lined back for the main and signal 415.4 went to Green. Upon arrival the Inspector found both 15' fouling wires broken. The fouling wires were repaired. The signals, fouling and switch circuit were tested.							
698	7/6/2002	CN	AB			CN 2528	CLS-20	Greendale, IL	N	
			Maintenance - Wiring Chewed by Rodents							
			A southbound train, CN2528 was holding in siding at South Greendale, a spring switch Electrocode style end-of-siding. As a northbound train approached South Greendale, the train crew on CN2528 observed the signal on the southbound trailing main, which should have been displaying Red was displaying a Yellow. The Signal Supervisor was notified and South Greendale was removed from service. While investigating the southbound absolute signal on the trailing main track, it was discovered that mice had been in the signal mast. They had eaten away the insulation on the pullman light wires and the red wire had deteriorated and the yellow light wire shorted to the remains of the red causing the yellow to illuminate instead of the red. The pullman wire was replaced, the signal mast was re-sealed to keep the mice out, and the signal location was tested and placed back in service.							

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699	8/24/2002	CN	APB			Rail Grinder	Signal 2EA	Round Lake Beach, IL	N
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Failed Equipment or Device - Loose Components

On Sat. Aug. 24, 2002 at Round Lake Beach, IL at 1845 a false proceed signal was observed by the crew on the Railgrinder.

The Rail Grinder on the #2 Main had a CLEAR signal for the #2 Main (Signal 2EB lined to converge). The switch was lined reverse for a move from #2 Main to Main Track. The rail grinder observed that the SB signal on #1 Main (Signal 2EA) appeared to be a Flashing Red aspect.

Upon arrival, signal maintainer observed erratic flickering of Red to Dark on signal 2EA.

After investigation supervisor found the plug strip behind lamp module was pushed back and loose from its anchor point. Module plug was secured and module was reseated tightly.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
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703	11/15/2002	CN	CTC			CN5427	Absolute Signal 10E	Port Huron, MI	N
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Maintenance - Wiring Chewed by Rodents

Mouse had built a nest in the red unit of a colorlight signal and had eaten the insulation off of the wires supplying energy to the bulbs in the red and yellow lenses. The nest pushed these wires into contact with each other causing the bulb in the yellow lens to light. This produced a R/Y aspect even though the dispatcher did not request the signal.

The nest was removed, the wires replaced, signal mast sealed to prevent further intrusion. Signal cables were meggered and found to be above 500k ohms. Proper operation of the signal was confirmed with route and aspect testing to ensure that correct aspects were displayed and were upgraded as intended.

(see attached letter to Brian Eisel for further details)

[Following text from letter to Brian Eisel, RR Safety Inspector, Signal & Train Control, FRA:]

On Friday, November 15, 2002 at 0836 hours, CN train #380 received a PROCEED indication more favorable than intended at signal 10E, Tappan Interlocking, MP 332.20, Flint S/D. Train #380 was a northward train on the Mt. Clemens Subdivision. Its destination was into track #1 at Port Huron.

Train #380 approached signal 10E and accepted a signal that displayed a R/Y indication. The Troy dispatcher (TD3) had not issued a control to clear the signal for this movement.

The incident was reported to the Signal Department around 0930 hours. Replays of the event were made from both the Toronto and Troy RTC computer equipment. Signal Department personnel arrived at Tappan at 1200 hours.

Upon investigation by the Signal Department the signal displayed a R/Dark. This is a colorlight signal. The signal foreman working on this investigation climbed the signal and removed the back cover and found that a mouse had recently built a nest in the red lens housing which obscured the visibility of the bulb shining through the red lens.

He then discovered that the mouse had eaten the insulation off of the light wires that provided battery power to the bulbs in the red and yellow lenses and that they were in such close proximity to each other that the slightest movement touched them together and both bulbs would light.

Both of these wires showed abrasion in the areas where they could touch indicating that they had been making contact. These facts indicated that train #380 did receive an indication more favorable than intended.

No other trains passed this signal in this condition. Repairs were made by the signal inspector and foreman by 1600 hours. The signal was tested and placed back in service around 1800 hours. Further testing was conducted and concluded by 2000 hours. Testing that was performed insured that the proper aspects were displayed for all the routes that this signal governed, and that the correct signal upgrade was made as intended.

This activity was observed by FRA Inspector Brian Eisel from beginning to end.

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705	1/14/2003	CN	AB				113N Trk Relay	Broadview, IL	N
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Human Error - Field Wiring Error, Inadequate Service Testing

A westbound train, WC 349 on main track #2 reported signal 11.3W CLEAR and signal 13.3W RESTRICTED. Upon investigation, the 11.3W westbound approach signal displayed CLEAR when it should have displayed APPROACH. The transmit battery wire was transposed on the 113 Normal Track Relay which was energized when it should have been deenergized, and the 113 Reverse Track was deenergized when it should have been energized. Prior to the incident a construction gang was replacing track wires at Des Plaines Ave. on the Freeport Subdivision near Broadview, IL. After replacing the track wires, the crossing was tested, however the foreman failed to test the wayside signal system, which consisted of back to back BH relays and line circuits.

707	2/21/2003	CN		Manual		STCBCH1	33 Crossover	Brighton Park, IL	Y
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Human Error - Improper Circuit Jumper in Place

On February 21 at approximately 1730 hours eastward train STCBCH1 derailed 2 cars at #33 switch at 33 crossover at Corwith Interlocker. The route given displaying a permissive signal at 35 signal was 33 reverse, 39 normal, and 43 reverse to Santa Fe Yard. A second incident had also occurred with the BNSF local reporting that after proceeding past a permissive signal switch 75 was lined reverse, against the established route. At the time of the derailment being reported, the Operator, was verifying in the field that 75 switch was lined reverse.

Signal Supervisor [redacted] contacted Manager [redacted] of the situation and the interlocker was taken out of service. At approximately 1930 hours [redacted] and Field Engineer [redacted] arrived to investigate the incident. It was confirmed in the tower that levers 33, 35, 43, and 41 were pulled, which is correct for signal 35 to display a signal to proceed. Upon inspection of the derailment, it was determined that the #33 switch of the 33 crossover had moved from the reverse position to a position one inch from normal, while the other end of the crossover was still lined reverse. It was also discovered that [redacted] and the Corwith Maintainer were replacing a polar relay for switch 34 while trains STCHCH1 and the BNSF local were moving across the interlocker. The relay change out started at approximately 16:30 hours and was completed at approximately 1700 hours. While the relay was pulled the Santa Fe main breaker (140VDC), which supplies control battery to the switch machines, was tripped open. At approximately 17:30 hours the main breaker had been reset. At this moment the Supervisor stated he had heard a couple of clicks for the control machine in the tower and within five minutes STCBCH1 reports they had derailed at #33 switch at the crossover.

Further investigation of the interlocker included resistance testing on all cables, ground tests, and verification of all routes. No exceptions were found during these tests. The incident could not be reproduced. Cause was determined to be human interference during the relay change out.

[Note from editor: The above description is unclear as to exactly how the human interference could have occurred (jumper, etc.). Since it doesn't mention errors in circuit design or field wiring, this false proceed is being charged to Human Error - Improper Circuit Jumper in Place.]

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708	3/5/2003	CN	CTC			343	Signal 2WA-CL	IKE north - Ray, MN	N
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Phantom Signal - Due to Sun Angle

NB train 343 was in the siding preparing to proceed NB on a CLEAR signal indication. Temperature was -30degF bright sunny. Signal maintainer was on site working on switch trouble due to frost on switch contacts. At approx. 11:11 train crew reported to signalman that they observed an APPROACH aspect on the main line signal (2WA). At the time they had a CLEAR on signal 2WB.

Signal maintainer bagen tests and could not simulate or replicate. No defects were found. Signal supervisor downloaded recorder. Data showed signal 2WA never lined at the time signal 2WB was up. Signal system returned to service when all tests were complete.

Train crew later reported in written statement that the lens color of 2WA changed from Amber to Red when they were within 1-2 car lengths. Train crew also reports frost on the signal lenses.

Cause appears to be a phantom aspect due to angle of sun on signal lens with heavy frost. Frost was removed from signal.

712	5/21/2003	CN		Remote		M393 3120	Plant Trap	Wellsboro, IN	N
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Human Error - Field Wiring Error, Inadequate Service Testing

Event: Dispatcher on Desk TD4 from [redacted] operations center reported westbound train M39331 20 accepted a signal 4L at the Wellsboro interlocker on the South Bend Subdivision, although his panel had shown an occupancy on track 2 on the CSX. This occurred on Wednesday, May 21, at 12:41 EDT. Plant was taken out of service to be investigated by the Signal Department.

Investigation: CSX was performing undercutter maintenance on their track, and created a track circuit wire to be severed, therefore creating a track occupancy on the TD4 panel. From the Digicon logs, signal 4L had been previously clear prior to the CSX severing the track wire. This track occupancy put signal 4L at STOP, until the CSX had repaired the track wire. Then the signal recleared even with the panel still reflecting an occupancy.

The occupancy shown on the panel was created by the CSX trap circuit (trap circuits are used for the 66-foot dead section of track where the CSX crosses the CN trackage. In a normal train move the track circuit gets released after the train passes through the entire interlocker. With the occupancy created by the undercutter only on the north side of the interlocker the trap did not release.

The investigation has revealed that planned additions were requested by CSX to this location in 1998. In the investigation we found that CN missed installing a portion of the modifications, also there was a software logic error introduced with the CSX electronic interlocker. Either of the railroads performing these changes correctly would have prevented this false proceed to occur. The CN has retrofitted the logic changes to its portion of the interlocker to correct the situation. The CSX will be correcting their software, to have a second method of preventing this condition from occurring.

It should be noted this interlocker worked properly for all normal through movements, the fault was found only on the trap circuit.

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717	9/15/2003	CN				NS 278	21L Signal	Gilman, IL	N
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Cause

Narrative

Phantom Signal - Due to Sun Angle

NS278 crew reported at approximately 1840 during sunset that 21L signal B head was Yellow. NS crew was on the Gilman Sub at 23L signal going to the Chicago Sub. A southbound IC M34241 was also going across the interlocking on the main. The dispatcher questioned the crew if it was the sun but they said it wasn't. The dispatcher told the Maintainer that 21L signal was not called for.

The maintainer, supervisor and inspector meggered the signal cables and tested for grounds. The relays were also tested. The interlocker was placed in remote control to do a reenactment and test the signal. The approach to 23L signal was shunted and remained shunted during the suration of the tests, because this is where the NS train was located. 1R and 13R signals were lined and 18T was shunted north then south of the diamond, 21L signal remained Red. We also shunted 21RT and lined 21L signal to verify the call on (B head Yellow) and got the signal indication. 21L signal was cleared and shunted 18T, 21L signal went to Red. Gilman Interlocker Harmon Logic Controller was downloaded. We verified that 21L signal was not called for or true.

The next evening during sunset the supervisor and maintainer went and inspected the signal. The weather conditions were similar to the day before. It appeared to be lit. We climbed up the signal mast and opened up the door and verified the bulb was not lit. Within 30 minutes it no longer appeared to look lit. A light diffuser was ordered for this signal to remedy the problem.

720	12/21/2003	CN	CTC			WC 5707	Sig. 544 S. Trk Circuit	State Line South CP	N
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Scenario Reenacted, Unable to Duplicate, No Defects Found

At approx. 16:18 on 12/21/03 SB Engine WC7507 reported a R/G aspect at State Line S. MP into a R/D aspect at approach signal at Grim Rd. MP 54.4. At approx. 17:10 CN2554 reported the same.

Plant was taken out of service, signalmen tried to reproduce defective aspect. Unable to simulate the defective signal in the field. Tested for grounds, none found.

Recorder at S. State Line shows track circuit bobbling to the south. New turnout being installed at MP 53.0 earlier this day was adversely affecting the circuit at this time.

4 rail bonds were found off in the circuit at the new turnout location. Bonds were replaced.

At the same time an indication problem was occurring between the Dispatcher's office and the field at State Line South. Indications were lost or delayed. Once the ATCS radio was reset in the field indications began to function normally.

Temp was 45deg and sunny with no snow on the ground. This report is being submitted by the request of [redacted].

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
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721	1/15/2004	CN	CTC				HT Switch 40.08 NWP	N. Mundelein, IL	N
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Human Error - Field Wiring Error, Inadequate Service Testing

At 11:30AM on 01-15-04 a defect was found in the signal system a N. Mundelein, IL on the Waukesha Sub. The South Dispatcher [redacted] train to hand operate the hand throw switch at MP 40.08 (near Maple St.) on the #1 main. When train operated HT switch Dispatcher noticed a track light on the #2 main. Signal Dept. was notified and HT switch was spiked and 20 MPH HER was applied.

After investigation it was discovered that the 40.08 NWP was wired into wrong MicroTrax unit at N. Mundelein/ 40.08 NWP switch is on the #1 main, however, it was wired into the #2 coded track unit in error. This 40.08 NWP should have been moved from the #2 unit to the #1 unit during the 11-09-03 cutover, when the N. Mundelein's power turnout was converted from a RH to LH turnout.

Corrective Action:

1. The NWP was wired into the correct track and tested on 1-15-04. All other HT switches in cutover area were also tested. 40.08 was then returned to service.
2. The CN is currently reviewing its testing procedures to prevent any future incidents.

724	3/3/2004	CN		Manual		WC 3012	Interface Circuit w. METRA	Forest Park, IL	N
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Human Error - Signal Circuit Design Error, Inadequate Service-Testing

On March 3, 2004 at approximately 1515 hours, L50191-03, northbound on single track out of Forest Park (Junction 11) off #2 Main Track reported a CLEAR signal at the approach (CM013.9), then a Red signal at B-12 while E24961-02 was coming off the IHB connection and occupying B-12.

Upon arrival of Signal Supervisor, Testman and Maintainer, download of ElectroCode 4H was obtained and confirmed indications as reported. Check for grounds proved negative. False proceed was reproduced under reported conditions. Circuit plans were reviewed and a defect was found in the Code 4 reference in the ElectroCode 4H. This defect allowed Code 4 to be added to Code 2 already present when the IHB is lined for the WC Main through a contact of the 10LDPPR, sending a Code 7 to the approach signal. To correct this situation, a front contact of the 10LAHPPR was added to the W-C4 reference.

After changes were made to the wiring, all signals involved were tested for proper operation and the approach signal was returned to service.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
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726	3/27/2004	CN	CTC			Unk	N/A	Crenshaw, MS	N
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Scenario Reenacted, Unable to Duplicate, No Defects Found

At approximately 1730 crew of southbound train G8869125 reported an alleged false proceed at signal 44.1 on the Yazoo Subdivision. This signal is the approach signal for southward movement to North Crenshaw control point located at MP 46.8. This is ATC territory, authorized speed 79 mph for passenger, 60 mph for freight trains.

Train crew advised they had received a Green over Red (CLEAR) indication for their movement and observed a Red over Yellow (DIVERGING APPROACH) at the North Crenshaw absolute signal, MP 46.8, for southward movement to the siding track. Upon arrival at the location, the Signal Inspector, Signal Supervisor and Manager S&C observed signal 44.1 to be displaying a Yellow over Red indication. The dispatcher was contacted, who advised the southbound absolute signal 46.8 was at STOP. Through coordination with the dispatcher, the investigative team operated the control point through all possible scenarios. In all cases, proper indications and code inputs were observed. All circuits at the location were then tested for grounds with an external battery source and were found to be free of grounds. ElectroLogic unit at the control point was then downloaded. This download indicated that as train G8869125 passed signal 44.1 with the switch at North Crenshaw in the reverse position, signal 44.1 was displaying a Yellow over Green (APPROACH DIVERGING) indication with absolute signal 46.8 displaying a Red over Yellow.

The investigation revealed no facts which would substantiate that the signal system was not operating as intended at the time of the alleged incident.

No. of Reports Shown in this Listing: **24**