

DEPARTMENT OF TRANSPORTATION  
 FEDERAL RAILROAD ADMINISTRATION  
**FALSE PROCEED SIGNAL REPORT**

OMB No. 04-R-4028

REPORT FOR (month/year)  
 August 2003

DATE  
 September 2, 2003

REPORTING CARRIER (railroad & region or division)  
 LONG ISLAND RAIL ROAD

All railroads subject to Regulations of the Federal Railroad Administration shall submit a false proceed signal report, original only, to the Federal Railroad Administration within five days after a false proceed occurs. If no false proceed occurs during any calendar month, a report showing "No Failures" must be filed within ten days after the end of the month.

Copies of this form will be furnished upon request to the Department of Transportation, Federal Railroad Administration, Office of Safety, Washington, D.C. 20590

MAIL TO

Federal Railroad Administration  
 RRS-13 Mail Stop 25  
 1120 Vermont Ave., NW  
 Washington, D.C. 20590

REPORTING OFFICER (signature/title)

Chief Engineer  
 Long Island Rail Road

A failure should not be counted more than one time in items 1, 2, 3, and 4: the failure should be classified under the basic system or appliance of which it forms an essential part. E.g., assume grounds cause a block signal to indicate a false proceed causing corresponding indications of a cab signal system on each train approaching this point. Such failures should be included in item 1, Block Systems.

A false proceed failure is a failure of a system, device or appliance to indicate or function as intended which results in less restriction than intended.

The following abbreviations may be used in the report.

A - Automatic	EM - Electromechanical
AB - Automatic block	EP - Electropneumatic
ACS - Automatic cab signal	FP - False proceed
APB - Absolute permissise block	MB - Manual block
ATC - Automatic train control	M - Mechanical
ATS - Automatic train stop	P - Pneumatic
CL - Color light	PL - Position light
CPL - Color position light	SA - Semiautomatic
E - Electric	TC - Traffic Control

TYPE OF SYSTEM	DATE	LOCOMOTIVE NUMBER	DEVICE THAT FAILED	LOCATION (city and state)
1 BLOCK SYSTEMS <input type="checkbox"/> JAB <input type="checkbox"/> JAPB <input type="checkbox"/> JTC				
2 INTERLOCKING <input type="checkbox"/> AUTOMATIC <input type="checkbox"/> REMOTE <input checked="" type="checkbox"/> MANUAL	8-22-03	NA	Signal Control Relay (16RBHB)	Jay Interlocking Jamaica, New York
3 AUTOMATIC SYSTEMS <input type="checkbox"/> JATS <input type="checkbox"/> JATC <input type="checkbox"/> JASC				
4 OTHER (specify)				

NATURE AND CAUSE OF FAILURE/CORRECTIVE ACTION TAKEN:

Sequence of events

On August 22, 2003 at 10:20am the Block Operator at Jay Tower reported that the indication for 16R signal at Jay Interlocking remained lit after the passage of eastbound train #4308 into #1 layup track. Block Operator restored 16R lever to the center position and was able to cancel signal. The signal was removed from service immediately and a block was placed on the affected track and route. There were no trains following the first train. Signal personnel were immediately dispatched to the interlocking.

### Failure Cause

Upon arrival at the location, Signal Personnel simulated the route. The route was 16R to 14L with 7, 9, & 13 switches reverse and 11 switch normal (see attachment A). They displayed 16R signal and they shunted the tripping track circuit (7TR) and observed a restricting signal aspect displayed on 16R signal. In addition, they observed the 16RBHB relay energized with the 7TS (track stick) deenergized. This resulted in a restricting signal being displayed when it was not intended. The cause of the 16RBHB relay remaining energized was found to be grounded positive energy wires between switch lever bands in the Model 14 Interlocking Machine. The circuit was meggered and was found to be grounded. The wires are old style TC Green. The 16RBHB circuit is not a true double broken circuit (see attachment B), only the 16R band breaks the common energy, and in this case the 16R band was made making the circuit effectively single broken. In addition, the grounded wires were further proven to be the cause by trying an alternate route from the same signal. This resulted in the circuit working properly.

### Repair & Testing

All of the wires in the route for the 16RBHB were replaced and the ground was removed. We field tested all applicable relays, meggered, cross meggered and circuit meggered all applicable wires and cables, and tested the 7TR track circuit. The train move/route was re-simulated and found to be working properly.

### Recommendations

We have continued rewiring all the single broken circuits at our last few TC Green interlockings. It is a painstaking task because every wire you relace in a bundle of hundreds of wires could cause an adjacent wire to fail. The Jay Interlocking Model 14 machine is scheduled to be replaced entirely by the end of 2004 this will eliminate all TC Green at Jay. We will continue replacing wires until the new system is cutover.