



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - New Jersey Transit Rail Operations

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
674	7/4/2001	NJTR		Remote		N/A	Span/Rail Locks	Newark Drawbridge - "Broad" Interlocking, N	N
Cause									
Narrative									
<p>Human Error - Signal Circuit Design Error, Inadequate Service-Testing</p> <p>M&E train dispatcher reported signals indicated they went to STOP, rail locks not locked, and track circuit occupancy on both tracks at Newark Drawbridge with no trains present and no drawbridge opening requested. The lift rails were found in the raised position with the swing span unlocked and ready to open. With the emergency system the bridge was manually locked and the rails were lowered. The automatic drive system was disengaged and de-energized to allow safe movement of trains. Investigation revealed that the wedge and rail drive control system had become falsely energized by a faulty output from the programmable logic controller used to operate the drawbridge automatically. The drive control circuit was revised to include a physical contact of the signal master relay as well as the existing software interlock.</p>									
725	3/20/2004	NJTR		Remote		LRV 3508	1AT (1 ANTR) Track Circuit	CP 175, Burlington, NJ	N
Loss of Shunt - Possible Rust or Foreign Material on Rail									
<p>Train #247 (equipment: LRV #3508) was tripped by the 2N-2 train stop while heading south through CP175 interlocking. The VHLC download revealed the train was tripped because track circuit 1AT picked up while the train was occupying the circuit. The circuit picked up for a duration 8 seconds (1 second over the loss of shunt timer) due to poor shunting. At no time was there a more favorable aspect displayed than STOP.</p> <p>Immediate action was taken in the form of lowering the track circuit relay current from 230 milliamps to 190 milliamps. A recorder was setup to monitor shunting and additional rail scrubbing has been scheduled for this area.</p>									

No. of Reports Shown in this Listing: 2