

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

REPORT FOR (month/year)  
 Nov-02

DATE  
 29-Nov-02

REPORTING CARRIER  
 Norfolk Southern Corporation

Division: Lake

REPORTING OFFICER /  
 Chief Engineer - Western Region  
 Communications & Signal Department

MAIL TO  
 Mr. Michael Woods  
 Federal Railroad Administration  
 16th Floor - Suite 16T20  
 100 Alabama Street, SW  
 Atlanta, GA 30303-3104

TYPE OF SYSTEM	DATE	LOCOMOTIVE NUMBER	DEVICE THAT FAILED	LOCATION (city and state)
1 BLOCK SYSTEMS <input type="checkbox"/> AB <input type="checkbox"/> APB <input checked="" type="checkbox"/> TC	11/29/2002	NS 9361	PSO Coupler	Bellevue, OH
2 INTERLOCKING <input type="checkbox"/> REMOTE <input type="checkbox"/> AUTO-MATIC <input type="checkbox"/> MANUAL				
3 AUTOMATIC SYSTEMS <input type="checkbox"/> ATS <input type="checkbox"/> ATC <input type="checkbox"/> ACS				
4 OTHER (specify)				

**NATURE AND CAUSE OF FAILURE / CORRECTIVE ACTION TAKEN**

On November 29, 2002 at 9:15 p.m., train LB 28, lead unit NS 9361, Engineer \_\_\_\_\_, Conductor \_\_\_\_\_, while approaching the eastbound signal at Bragg Rd., MP B-246, observed signal to be restricting. When train LB 28 was seven (7) car lengths from the signal, it upgraded to an approach for less than a second, then dropped to stop. Train was stopped four (4) car lengths from the signal. Train 403 was proceeding east in the block ahead of LB 28.

C&S investigation determined that a Phase Shift Overlay (PSO) rail to line coupler was discharging enough voltage on the signal control line circuit to energize the R222 HD relay causing the signal to display an approach signal for a second and canceling the stick circuit causing signal to drop to stop. The phase shift overlay is superimposed on the signal control line wire and the coupler discharged into the relay after the track circuit was energized. This overlay circuit was not in service at this time.

Manufacturer is testing coupler and their use in this application. The PSO will be moved to spare wires and vendor is reviewing its application.

DEC 12 2002