

**FALSE PROCEED SIGNAL REPORT**

DATE	Dec-02
REPORTING CARRIER	Norfolk Southern Corporation
Division:	Central
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	12/5/2002	NS 9515	Thermal Timer Relay	Reid, KY
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 Thursday, December 5, 2002 at 2:30 p.m., train # 230, lead unit NS 9515, with Conductor \_\_\_\_\_ and Engineer \_\_\_\_\_ reported the northbound automatic signal at MP 356 changing from approach to clear prior to passing the signal. The next signal at Reid, Control Point MP 32.0 was a diverging clear into number two track. The correct aspect for the signal at 35.4 would have been approach to approach diverging.

Investigation of the above occurrence was duplicated and found to be a thermal time relay at the 35.4 automatic signal. The time was designed to hold off the signal upgrade at 35.4 for 8 seconds. This allows the northbound signal to remain at approach until the track code changes to positive and the minus codes for the approach is lost.

If the timer operates less than the required time the coding of a minus for the approach and a plus for the approach diverging gets decoded as a minus plus - (clear).

The timer relay was replaced and the signals returned to service. The particular timer is a type B1 GRS LOS timer and is common on the first and second districts of the CNO&TP. All locations are being inspected for style of timer relay and operation is being checked.

DEC 16 2002

*Lucas*