DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FALSE PROCEED SIGNAL REPORT

REPORT FOR (month/year)
September 1998

DATE
October 13, 1998

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

REPORTING CARRIER (railroad & region or division)
Norfolk Southern Corporation
Division - Alabama

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

REPORTING OFFICER (signature/title)
Chief Engineer - Western Region
Communications & Signal Dept.

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 permissive 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 [X] AB [ ] APB [ ] TC	9/29/98	UP-9247 NS-8736	connection	Millard, MS
2 INTERLOCKING [ ] AUTOMATIC [ ] REMOTE [ ] MANUAL				
3 AUTOMATIC SYSTEMS [ ] ATS [ ] ATC [ ] ACS				
4 OTHER (specify)				

NATURE AND CAUSE OF FAILURE/CORRECTIVE ACTION TAKEN

At approximately 5:45 PM, Train No. 131, Engineer and Conductor , was traveling southbound from Meridian, MS to New Orleans when the crew observed a clear indication on signal 134.3. The crew knew they should have had an approach indication because southbound Train No. M30 was stopped in the second block ahead. They were aware of M30's location on account of radio conversation.

Signal personnel were called to investigate. The signals in this territory are controlled by ElectroCode II electronic track circuits. Though the problem was not duplicated in the field, they did witness a more restrictive indication on the 134.3 signal under similar conditions. The code generator responsible for the 134.3 signal indication (at the next signal south) was found to be causing the false restricting when it was purposely vibrated in its socket. This code generator was never seen to cause a false clear in the field, even when vibrated. However, when the unit was bench tested at Birmingham with a code-two (approach) continuously generated, it was able to get a receiver to decode a code-four (clear) for about 9.5 seconds by wiggling the card. The unit was returned to the manufacturer for further analysis and their recommendations.

The manufacturer stated they were able to duplicate the problem and traced it to mechanical loosening of the connection at one end of a capacitor. This fault was found to only upgrade an approach code to a clear code or down grade to restricting, and then only sporadically and momentarily while the card was being vibrated. It would not upgrade from a red. It was not determined what could have been vibrating the case where the card unit was housed. Recommendations are to be provided by the manufacturer.

FORM FRA F 6180-14 (6-72)