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R.E. Murray
S&Tc
7/18/96
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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FALSE PROCEED SIGNAL REPORT

REPORT FOR (month/year)

July 1996

DATE

July 16, 1996

REPORTING CARRIER (railroad & region or division)

Norfolk Southern Corporation
Division - Pocahontas

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 Admin.
Suite 440, North Tower
1720 Peachtree Rd., NW
Atlanta, GA. 30309

REPORTING OFFICER (signature/title)

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

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	7/8/96	8586-8755	human error	Beech Fork, WV
2 INTERLOCKING <input type="checkbox"/> REMOTE <input type="checkbox"/> MANUAL <input type="checkbox"/> AUTO-MATIC				
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				ATLANTA, GEORGIA

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RECEIVED

JUL 18 1996

At approximately 3:50PM Train No. U34U708, engineer _____, Conductor _____ pulled their train about one and one-half units past signal R48 and stopped to cut off their caboose. The crew noticed signal R48 was still displaying diverging approach instead of stop as it should have with their units occupying the track beyond the signal.

Signal personnel were called to investigate and found that the track immediately beyond signal R48 was a shunt fouling that, when shunted, would bring the track voltage on the main track portion down to only 0.2 volts. This was not enough of a shunt to drop out the track relay. Further testing and inspection revealed that when the south rail track connections of the fouling wires were disturbed while the fouling was shunted, the track relay dropped and the R48 signal displayed stop. On close inspection it was found that the bondstrand in both connectors on the south rail had never been crimped. The effects of corrosion over a period of time and vibration resulted in the fouling wires becoming ineffective. No one could remember the last time these particular wires had been reworked/installed. There was documented evidence that shunt fouling tests were performed at this location in accordance with rule 236.104, but apparently the corrosion and vibration had at this point in time caused a high enough resistance to make the wires ineffective for shunting.

Two new rail connectors were installed and the track voltage again measured. With a shunt applied in the fouling section, the reading was 0 volts on the main track and the OS track relay dropped with less than one milliampere current. The signal system was returned to service.

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