S-96-03 Federal Railroad Administration Technical Bulletin

Date: May 14, 1996

Reply to the Attention of: S-96-03

Subject: Concerns in Conjunction with 49 CFR §236.567

From: E. R. English

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To: All Regional Administrators, Deputy Administrators, Signal & Train control

Specialist and S&TC Inspectors

In 1996, The Technical Resolution Committee (TRC) for Signal and Train Control addressed questions concerning the application of 49 CFR Part 236.567. Each question is listed and the TRC response to each is recorded.

Q. What is the maximum authorized train speed with an absolute block established and no wayside signals?

TRC: 79 mph, as described in the response to paragraph two.

Q. 49 CFR Part 236.567 states that a train may operate not to exceed 79 mph after absolute block protection is established in an area where an automatic block signal system is in effect. However, it appears in this situation the automatic block signal system is no longer in effect since the on-board cab signal system serves as a vital portion of the TCS system.

TRC:Some conditions may result in loss of ACS/ATC carrier (40, 60 or 100Hz) however, the integrity of the wayside signal aspects are unaffected the train may operate up to 79 mph after the limits of the absolute block is established.

Conversely, some automatic cab signal systems such as in place on the Burlington Northern, Chicago Division, and similar former New York Central systems transmit 75, 120 and 180 pulses per minute (ppm) over line.

Code followers at wayside signal locations display aspects with respect to the code rate received. In these signal systems a system failure certainly affects the integrity of both the cab signals and the wayside signals. However, as above, it is possible that only the carrier may be lost and the D.C. pulses may still provide wayside signal aspect integrity. Only the carrier's signal personnel can determine ACS carrier loss as opposed to a failure on the ACS equipment on-board the locomotive or complete system failure as described above.

The short answer is, some systems affect the vital operation of the wayside traffic control system (TCS) and some systems do not.

Team Recommendation: The following defect code be added.

567.07 Train permitted to proceed at a speed other than restricted speed after communications has been established, where automatic train stop, train control, or cab signal device fails and/or is cut out en route when an absolute block is not established in advance of the train on which the device is inoperative and no automatic block signal system is in operation.