Memorandum

U.S. Department
of Transportation

**Federal Railroad
Administration**

Date: June 15, 1998 Reply to Att. of: MP&E 98-15

Subject: Conditional Use of Air Flow Method For Train Air Brake Qualifications as an Alternative To the Leakage Test For Trains

From: Edward R. English
Director, Office of Safety Assurance and Compliance

To: Regional Administrators, Deputy Regional Administrators,
Motive Power & Equipment Specialists and Inspectors

The following conditions were given to the Association of American Railroads for use of air flow method (AFM) for train air brake qualifications:

1. Each controlling locomotive on a train qualified by the AFM shall be provided with an operational air flow indicator;

2. Participating railroads shall provide an operational end of train device (see 49 CFR Section 232.19 - 232.25) on all trains except transfer and yard trains with movements not exceeding 20 miles;

3. The AFM will apply only to trains using locomotives that are equipped with an air flow indicator that conforms with FRA's conditions, AAR specifications and calibration procedures, and 26-L freight locomotive air brake equipment;

4. When the AFM is used for train air brake qualifications, the air brake system shall be charged within 15 psi of the highest locomotive feed valve pressure used by that railroad and air flow shall not exceed 60 cubic feet per minute (CFM);

5. The air flow indicator must be calibrated for accuracy at periodic intervals not to exceed 92 days;

6. The air flow indicator shall be clearly visible and legible in daylight and darkness from the engineer's normal operating position;

7. The air flow indicator gauge shall be clearly and uniformly marked to indicate direct reading of air flow in 10 CFM increments from at least 10 CFM to 80 CFM,

with numerals indicating, at a minimum of 20, 40, 60, and 80 CFM for continuous monitoring of the air flow into the brake pipe.

8. The air flow indicator calibration test orifices shall be calibrated at temperatures of not less than 20 degrees Fahrenheit;

9. When a train qualified by the AFM is in operation and experiences an increase in brake pipe air flow and/or an increase in brake pipe gradient and the movable pointer does not return to the limits established in the initial terminal train air brake test within a reasonable time, the train crew shall stop the train for inspection and repair leaks, if detected. If unable to make repairs the crew should arrange to set out defective cars and/or proceed with due caution to thee next location where corrective action can be taken;

10. All participating railroads shall provide FRA a list of locations where calibrations will be performed and of locations which will be provided with test orifices. Changed, deleted, or additional locations will be reported to FRA within 92 days; and

11. All personnel involved with the AFM of testing of trains air brake systems and operating such trains must be given training and be aware of and understand the conditions of the waiver.

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