commenter apparently believed that the use of the additional word "piston" added nothing because every system has a push rod, the agency nevertheless has decided to include this term to clarify that the necessary measurements of stroke length can be measured at the piston or the push rod. Accordingly, the regulatory text retains this word.

### D. Future Rulemaking

NHTSA notes that it is considering rulemaking consistent with the draft SAE Recommended Practice J1609X, Air Reservoir Capacity Performance Guide—Commercial Vehicles. The purpose of such a rulemaking would be to establish a performance requirement addressing the minimum air storage capacity for air-braked vehicles. If the agency determined that such a performance requirement were appropriate, it would issue a proposal in the Federal Register on which the public could comment. A considerable amount of testing needs to be completed before a viable set of performance requirements are established.

#### E. Miscellaneous Issues

Commenters raised a number of issues that were not mentioned in the NPRM. These include testing trucks on downhill grades, the consistency of the amendment to the agency's statutory mandate, marking requirements, and the rule's effective date.

With respect to testing truck descents on downhill grades, NHTSA disagrees with comments by Advocates and Haldex that the air reservoir requirements should be based on such testing and that such testing represents worst-case situations. Braking on ice, snow, and rain covered roads with low coefficient of friction surfaces is more severe than mountain grade braking. The air pressure remaining after a complete antilock cycling stop on ice or wet Jennite is substantially less than that remaining in the air brake system at the bottom of a long mountain grade. Moreover, VRTC studies clearly show that there is sufficient air remaining in the air brake system, after stopping on low coefficient of friction surfaces or mountain grades using either snubbing or steady pressure. Similarly, testing performed by the University of Michigan Transportation Research Institute (UMTRI) shows sufficient air supply reserves on long down hill grades to make a 60 psi full braking stop at the bottom of the grade.4 Advocates

appears to misunderstand how downhill braking affects an air brake system's reservoirs. Consumption and apply and release times, which are important concerns for long stroke chambers, are not important concerns with downhill braking. The major consideration in downhill braking is overheated brakes and brake fade caused by brakes that are not in adjustment, since improperly adjusted brakes must be applied for longer periods of time. As a result, the vehicle will have either no brakes or very limited braking. The use of long stroke brake chambers together with automatic adjusters will reduce the incidence of out-of-adjustment, and thus not degrade the performance on downhill braking.

Advocates stated that the petitioner's "rated volume" approach to establish the air reservoir volumes is equivalent to the European type approval approach for establishing compliance. Accordingly, it believed that the proposal was inconsistent with the National Traffic and Motor Vehicle Safety Act (now codified as chapter 301 of Title 49, United States Code). NHTSA believes that Advocates has misinterpreted both the proposal and the law. Unlike European type approval, the proposal is not for a single manufacturer's product. Rather, it regulates all manufacturers' brake chambers of a specific type. Accordingly, today's requirements are consistent with the law.

Rockwell and HDBMC recommended that the agency require the identification of long stroke chambers through marking requirements. Notwithstanding this request, NHTSA notes that the agency cannot include a marking requirement in this final rule that it did not propose in the NPRM. Nevertheless, the agency will monitor the progress made by the Federal Highway Administration which is working with the SAE, Commercial Vehicle Safety Alliance, and brake equipment manufacturers to establish an acceptable marking system that can easily be identified under the difficult visual conditions on the underside of air braked vehicles. If NHTSA determines that Federal marking requirements are needed, then it would propose marking requirements in a future rulemaking.

The same problem with inadequate notice is relevant to Midland-Grau's recommendation to raise the minimum governor cut-in pressure to 100 psi. The agency may consider such a requirement in a separate rulemaking,

depending on tests to be conducted at VRTC.

In response to requests by Freightliner and ATA for NHTSA to make the final rule effective upon publication, the agency notes that the Administrative Procedure Act generally requires a leadtime of at least 30 days, unless the agency finds "good cause" to issue the rule sooner. Since, NHTSA typically makes a finding of good cause only in emergency situations, the agency cannot accommodate this request. The final rule will take effect 30 days after its publication in the **Federal Register**.

# **Rulemaking Analyses and Notices**

Executive Order 12866 (Federal Regulation) and DOT Regulatory Policies and Procedures

NHTSA has considered the impact of this rulemaking action under E.O. 12866, "Regulatory Planning and Review" and the Department of Transportation's regulatory policies and procedures. This rulemaking document was not reviewed under E.O. 12866. This action has been determined to be not "significant" under the Department of Transportation's regulatory policies and procedures. A full regulatory evaluation is not required because the rule will not impose any special requirements on manufacturers. Instead, the rule will facilitate the introduction of a new brake design by removing a design restriction. Therefore, the agency believes that this rulemaking will not result in significant additional costs or cost savings.

## Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act, NHTSA has evaluated the effects of this action on small entities. Based upon this evaluation, I certify that the amendments will not have a significant economic impact on a substantial number of small entities. Vehicle and brake manufacturers typically do not qualify as small entities. As discussed above, the agency's assessment is that this amendment will have no cost impact to the industry. For these reasons, vehicle manufacturers, small businesses, small organizations, and small governmental units which purchase motor vehicles will not be affected by the requirements. Accordingly, no regulatory flexibility analysis has been prepared.

## Executive Order 12612 (Federalism)

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that the rule will not have sufficient

<sup>&</sup>lt;sup>4</sup> "The Influence of Braking Strategy on Brake Temperatures in Mountain Descents," March 1992, Federal Highway Administration Report DTFH61– 89–C–00106. Report available through the National

Technical Information Service. NTIS accession number PB 93–137032.