

## **BUS TESTING PROGRAM SUMMARY OF THE FINAL RULE COMMENTS**

A total of 24 entities submitted written comments to the NPRM including transit agencies (7), APTA, bus OEMs (4), the fire safety industry (7), bus remanufacturers (2), other safety product industry (1), and other non-transit organization (2). No comments were received from the mid-sized (paratransit) bus OEMs. **None of these questions were related to the Paperwork Reduction Act and burden estimates.**

Generally, FTA is adopting the test procedures that were proposed in the NPRM, although FTA is making a handful of changes to some test procedures as a result of comments received in response to the NPRM. FTA is adding a set of brake stops at gross passenger load as part of the Braking Test; measuring noise levels while traversing road irregularities as part of the Noise Test; eliminating the Shakedown Test and moving its single point score value into the Structural Durability Test; and adding a miles per gallon diesel equivalent (MPGde) metric to the Fuel Economy test results. Further, FTA is not adopting the proposal that a test-unit bus be Buy America compliant, and instead, is only requiring the manufacturer provide the country of origin for the test vehicle's major components, which FTA believes will help transit agencies ensure that the tested bus is similar to the bus they are procuring. In addition, FTA is making a few non-substantive amendments, replacing the term "grantee" with "recipient" to bring it into conformity with standard FTA usage, and cross-referencing FTA Circular 5010's categorization of a vehicle's useful service life instead of repeating it in the regulatory text.

The comments received regarding the testing of remanufactured buses were varied. One bus OEM supports the testing of remanufactured buses. APTA admits concerns about remanufactured buses as direct competitors for new buses. APTA is adamantly opposed to the testing of overhauled/rebuilt/remanufactured buses already within a grantee's fleet. One transit agency was concerned about their overhauled buses being tested. Two prominent bus remanufacturers indicated that they oppose the testing of all remanufactured buses. Due to the level of internal FTA concern about the risks associated with remanufactured buses, the FTA Policy Council directed that the Final Rule apply the requirements of the bus testing program to remanufactured bus models that are being remarketed to transit agencies.

When OST reviewed the draft Final Rule, its only significant concern was related to the requirement for the testing of remanufactured buses. Its concerns stemmed from the fact that the NPRM did not propose that remanufactured buses be tested and as it only requested comments on the need for testing. Subsequently, the requirement for the testing of remanufactured buses was removed from the draft Final Rule.

During OIRA's review of the draft Final Rule several concerns were raised for further discussion. First, they were concerned that FTA appears to be extending its Buy America requirements, not applicable to private property in which there is no federal interest, to buses submitted for testing and strongly encouraged FTA to remove any US content and production provisions from this rulemaking. Second, they were concerned that the proposed Pass/Fail criteria will likely result in significant retesting for certain bus models. They requested that FTA assure that testing capacity will be available to prevent delays in approvals and consequently

delivering new bus models to the market. Next, OIRA was concerned about FTA's response to Proterra's comments regarding the fuel economy performance standard (scoring) recommending a mile per gallon equivalent (MPGe) metric instead of the fuel specific scoring scales in the draft Final Rule. Lastly, OIRA asked how FTA is responding to the fire safety standards comments.

FTA responded to all of OIRA comments. First, FTA is no longer requiring that test-unit bus be Buy America compliant, and instead, is only requiring the manufacturer provide the country of origin for the test vehicle's major components, which the agency believes will help ensure that the tested bus is similar to the bus the will be completed in production. Second, FTA assured OIRA that Altoona has the capacity to retest any buses that fail without causing delays in the testing time for all manufacturers. Third, FTA considered a universal fuel economy scoring scale but declined to adopt such an approach for several reasons. First, MPGde does not factor the energy cost efficiency of each fuel type into the calculation, second, MPGde does not account for the significant fueling infrastructure costs of most alternative fuels introduced into transit fleets, nor does MPGde account for the significant differences in maintenance facilities, maintenance practices and tools, and maintainer skill sets required for each fuel type. Third, MPGde only assesses the fuel efficiency of the vehicle from the vehicle's fuel tank to the wheels and not the true "well-to-wheels" efficiency of the complete fuel chain. This methodology generates an artificially high MPGde value for electric vehicles as most of the costs of generating and delivering electric "fuel" take place off-board the vehicle at the electric powerplant and along the power transmission lines. Lastly, if FTA scored the fuel economy results using MPGde, the resulting inflated electric vehicle MPGde values will require expanding the range of the scoring scale significantly. Due to the current scale having a fixed number of points, the resolution of the scale will be reduced, making all bus models of the same size class and fuel type look identical with respect to the score. This defeats the primary purpose of the program which is to provide agencies objective information for the selection of bus models during the bus procurement process. Lastly, FTA considered all of the fire safety comments to be out of scope with the proposal as FTA does not have authority to update NHTSA's FMVSS 302 regulation. OIRA was satisfied with FTA's responses and gave FTA approval on June 17, 2016 to publish this Final Rule.