DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

SUPPORTING STATEMENT

Bus Testing Program
(OMB Control No. 2132-0550)

Abstract:
The Bus Testing Program is a series of tests performed on new transit vehicles or existing vehicles that have been previously tested, but have undergone significant/major changes to their design. Bus Testing is required by law, for any model bus that will be purchased using federal funds. Before federal funds can be expended, the bus manufacturer self-certifies to an FTA grantee that specific information has been gathered during testing at the Bus Testing Center. Funding recipients use the information gathered from the testing to assist them in making their bus purchasing decision

Justification
This supporting statement is associated with a request for a revision of an existing approved information collection. This revision reflects the new information required to support the proposed statutory and discretionary program changes outlined in the Bus Testing Program Pass/Fail Final Rule. Through this Final Rule, FTA is amending 49 C.F.R. Part 665 to implement Section 20014 of the Moving Ahead for Progress in the 21st Act (MAP-21), which directed FTA to establish new pass/fail standard and new aggregated scoring system for buses and modified vans.

This Final Rule carries out the MAP-21 requirements in a manner that meets Congressional direction, minimizes economic burden for the transit vehicle manufacturers who must submit their vehicles for testing, and limits unnecessary testing delays for transit agencies seeking to procure new bus models. This approach does so by retaining the existing bus testing protocols, but assigns numerical scores to the test results and establishes mandatory performance thresholds.

1. Circumstances that make the collection necessary.

Title 49 U.S.C. Section 5323(c) provides that no federal funds appropriated or made available after September 30, 1989, may be obligated or expended for the acquisition of a new bus model (including any model using alternative fuels) unless the bus has met the requirements of FTA's Bus Testing Program. Title 49 U.S.C. Section 5318(a) further specifies that each new bus model is to be tested for maintainability, reliability, safety, performance (including braking performance), structural integrity, fuel economy, emissions, and noise. In addition, any existing bus models being produced with a major change must also comply with the requirements of the Bus Testing Program. Upon completion of the testing of the vehicle, a bus testing report is provided to the manufacturer.

The Bus Testing Program (often referred to as "Altoona Testing" due to the location of the primary test facility) is operated by The Thomas D. Larson Pennsylvania Transportation Institute (LTI), an interdisciplinary research unit of The Pennsylvania State University in the College of Engineering. Founded in 1989, LTI operates the Bus Testing Center, conducts the tests, and documents the test results under a cooperative agreement with the Federal Transit Administration (FTA). Under this cooperative agreement, FTA pays 80% of the applicable test fee for each bus tested, approves the test procedures developed by the testing Center and provides technical assistance to the bus industry in determining Bus Testing Requirements.

This information collection is necessary because the Bus Testing Program has dramatically improved the reliability and safety of new and existing bus models in the transit industry. As of March 31, 2016 testing has been completed on 444 buses. Since the program's inception, more than 9,324 bus failure modes have been identified by the Bus Testing Program, resulting in many design changes. Of those failure modes, 44 could have resulted in serious injuries or significant property damage had they occurred in revenue service. Many of the other malfunctions would adversely impacted transit service (e.g., resulting in road calls stranding passengers), and all would increase maintenance costs by requiring corrective maintenance actions. By testing new bus models before they are purchased, recipients and manufacturers can often address problems before the fleet is built, potentially saving the federal government and grant recipients considerable money and time and avoiding inconveniencing passengers.

2. <u>How, by whom, and for what purpose the information is to be used.</u>

The information collected during the Bus Testing Program applies to recipients (often referred to as a "grantee") of FTA's capital assistance program who purchase new model transit buses or existing bus models being produced with a major change. Bus Manufacturers must also use the information collected during the Bus Testing Program to ensure that their vehicle meets FTA's requirements for final acceptance before they are purchased by the grantee with federal funds.

The information collected by the Bus Testing Program is used to: 1) determine the eligibility of a new bus model for testing as per 49 CFR 665.11; 2) determine the amount of testing necessary; 3) satisfy the legal and administrative requirements necessary for the Bus Testing Facility to schedule the testing of a new bus model; 4) to collect new bus model design, and component information for inclusion in the final report; 5) determine compliance with the fuel economy and emissions performance standards; and 6) determine the maximum rated standee passenger capacity of a new bus model.

Information addressing items 1 & 2 will be collected by FTA via an online standardized electronic application request form available on FTA's public internet site and used by FTA's Bus Testing Program Manager to process all requests for new bus model testing. A template of this form, previously approved by OMB is included in the supplementary information section in the ROCIS system. This new online application form will be utilized beginning in early 2017. From the information collected on the standardized form and previous bus model testing history, if any, FTA will determine the amount of testing that is necessary. Once complete, FTA will provide the testing determination results to the requester and to the Bus Testing Facility operator if testing is required. If FTA determines that no testing is required no additional information is collected for that request.

In order to schedule a bus test at the Bus Testing Center (item 3), bus manufacturers must submit a variety of information to LTI. The steps for submitting a vehicle for testing are outlined on LTI's website at http://146.186.225.57/schedule_testing. The first piece of information that must be submitted is two signed copies of the testing contract. The contract outlines that LTI is the official operator of the testing facility and that they are under a cooperative agreement with FTA to conduct testing of transit vehicles in accordance with FTA regulations and the established testing procedures. The contract can be found under supplementary information in the ROCIS system and online at http://146.186.225.57/scheduling_pdfs/Contract_Dec_2013.pdf. Additional information that must be submitted before testing begins includes; a spare parts inventory list, evidence of adequate liability and physical damage insurance coverage on the bus, and a check for the manufacturer's share of the testing fee.

To address item 4, bus manufacturers are required to complete the bus model information template. This information can be submitted at the time of test scheduling or later, as it is included in the final bus testing report to document the bus configuration tested. This template is included as an information collection instrument in the ROCIS system. For item 5, bus manufacturers need to submit a copy of their compliance documentation prepared to address the applicable Federal requirements of 49 CFR 535, 40 CFR 86, and 40 CFR 1037 as evidence of satisfying the proposed FTA performance standards for "Fuel Economy" and "Emissions" outlined in the Bus Testing Pass/Fail Rule.

The Pass/Fail Rule also requires that bus manufacturers identify the maximum rated standee passenger capacity on the front interior bulkhead. This rating will be used for the purposes of payloading the test bus and will also inform FTA grantees about the total rated passenger capacity of the new bus models that are delivered.

3. Consideration of improved information technology.
FTA will offer a standardized web-based test request form on the FTA external website www.transit.dot.govonce the revised rule becomes effective. The form will be utilized in early 2017. This form was created after comments from OMB and stakeholder during the previous information collection request. It is a change from the current test request process which accommodates both formal written test requests and the more common e-mail test requests.

Instructions and the required documents for scheduling testing with LTI are available online at http://altoonabustest.com/.
The database of bus testing reports is also available to the public online at http://146.186.225.57/buses.

4. Efforts to identify duplication.
There is no duplication. No other entity conducts and documents comparable data from the testing of new bus models. The test report is produced by LTI, which is the only place where all of the test reports are kept on file. In addition, 49 CFR Part 665 (the Bus Testing Regulation) seeks to minimize the burden on manufacturers by allowing, under certain circumstances, partial testing of previously-tested bus models that subsequently have major changes.

5. Methods used to minimize burden on small businesses or other small entities.
All business entities follow the same process for the information collection, and that process has been streamlined as much as possible given the statutory and regulatory requirements.

6. Consequences to federal program or policy activities if collection were conducted less frequently.

It is not possible to collect the information less frequently, since it is required by statute if FTA funds are to be used in the procurement of a bus model and is only collected when testing of a new bus model is requested.

7. Special circumstances that require the collection to be conducted in a manner inconsistent with 5 CFR 1320.6.

This information collection requirement is consistent with 5 CFR 1360.6.

8. Efforts to consult with persons outside the Agency to obtain their views.

The Federal Transit Administration published a Notice of Proposed Rulemaking (NPRM) on June 23, 2015 Vol. 80 No. 120 (pages 36112-36161). The Final Rule was published on August 1, 2016 Vol. 81 No. 147 (pages 50367-50394).

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 recipients that did not previously own those particular vehicles.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

No payment or gift is made to respondents.

10. Assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation or agency policy.

49 CFR Part 665 states that upon completion of testing of a new bus model at the Bus Testing Center, a test report will be provided to the bus manufacturer or entity that entered into a contract with the Center. Unless the manufacturer or entity requests in writing that the test report not be published (with the result that FTA funds cannot be used to procure that bus model), the vehicle test report automatically becomes a public document 60 days after completion of the test.

49 CFR Part 665.13(e) states that, "the test report is the only information or documentation that will be made available publicly in connection with any bus model tested at the facility." The bus testing website makes it possible to obtain the same information that appears in the official bus testing reports in an electronic format online at http://www.altoonabustest.com/.

11. Additional information for questions of a sensitive nature.
No sensitive information is required.

12. Estimate of hour burden of the collection of information and annualized cost to respondents.

Estimated Annual Number of Respondents: 46
Estimated Total Annual Burden Hours: 300.1
Estimated Total Cost: $12,592.16

The hourly burden and cost to respondents is driven by the information collected during the test request process, the test scheduling process, and the report preparation and the pass/fail compliance process. In 2015, there were 46 requests for testing.

The hourly burden and annualized cost to respondents from the test request process is outlined in Table 1. The hourly burden and annualized cost estimates assume that the number of test requests will remain at 46 annually and that FTA will use an on-line form for requesting testing and that all 46 requests will require 0.75 hour to complete, regardless if the request is for full or partial testing. Of the 46 testing request, five were of a higher level of complexity that FTA needed more information in order to assess the scope of the partial test program. These five tests will require 4 additional hours to complete and send to FTA.

TABLE 1: Estimated Burden and Cost of the **Test Request Process**

Item	**Labor Category** (BLS code/title)	**Labor Rate** ($/hr)	**Time** (hrs)	**Annual Quantity of Requests**	**Total Annual Hours**	**Total Annual Cost** ($)
Total Test Request	17-2141 Mechanical Engineer	41.31	0.75	46	34.5	1425.20
Partial Test Determination Additional Information Request	17-2141 Mechanical Engineer	41.31	4.0	5	20.0	826.20
Total Annual Partial Test Determination Request Burden					**54.5**	**$2251.40**

The estimated hourly and cost burden related to scheduling a bus for testing is presented in Table 2 (see below). FTA estimates that a lawyer, accountant, mechanical engineer, and administrative personnel will be involved in the preparation of the request. FTA estimates that 16 buses will be tested in a typical year. Labor categories and rates from the Bureau of Labor Statistics (http://www.bls.gov/oes/current/) were used to estimate annual costs.

TABLE 2: Estimated Labor Burden and Cost for the **Test Scheduling Process**

Item	**Labor Category (BLS code/title)**	**Labor Rate ($/hr)** (May 2013 BLS Statistic)	**Preparation Time** (hrs)	**Cost** ($)
Testing Contract	23-1011 Lawyer	63.46	1.0	63.46
Proof of Insurance	23-1011 Lawyer	63.46	1.0	63.46
Payment Check	13-2011 Accountant	34.86	1.0	34.86
Spare Parts Inventory List	17-2141 Mechanical Engineer	41.31	3.0	123.93
Bus Design Characteristics Information	17-2141 Mechanical Engineer	41.31	2.5	103.28
Assembling/Mailing of Test Scheduling Package	43-000 Office/Admin Support	16.78	1.5	25.17
Postage for package				8.63
Total burden per test request			10.0	422.79
Total Annual Burden (16 tests a year)			**160.0**	**$6764.64**

There is an additional paperwork burden associated with submitting documentation to FTA and the Bus Testing Facility operator for the retesting of a failed performance standard. Bus manufacturers will need to submit to FTA a failure analysis and a proposed corrective action report for bus models that fail to meet one or more of the proposed performance standards. They will also need to submit additional test fees associated with the tests that are repeated. The estimated burden and cost is presented in Table 3. Over the three-year study period, seven bus models would have required a request for retesting resulting in an average of 2.33 requests annually.

TABLE 3: Estimated Burden and Cost for the Request of **Retesting to Address a Failed Performance Standard**

Item	**Labor Category (BLS code/title)**	**Labor Rate ($/hr)**	**Preparation Time** (hrs)	**Cost** ($)
Payment Check for Retesting Fees	13-2011 Accountant	34.86	0.5	17.43
Check Mailing	43-000 Office/Admin Support	16.78	1.0	16.78
Postage for package				5.60
Preparation of Failure Analysis and Modification Proposal	17-2141 Mechanical Engineer	41.31	7.0	289.17
Total burden per test request			8.5	328.98
Total Annual Burden (2.33 retest requests a year)			**20**	**$766.52**

One of the proposed revisions to the pay loading process requires that the maximum standee

passenger rating be placarded inside on the front bulkhead of the test bus. The estimated cost and labor burden for this information collection is presented in Table 4.

TABLE 4: Estimated Burden and Cost for the **Revised Bus Pay loading Procedures**

Item	**Labor Category (BLS code/title)**	**Labor Rate ($/hr)** (May 2013 BLS Statistic)	**Preparation Time** (hrs)	**Cost** ($)
Maximum Standee Passenger Capacity Calculation	17-2141 Mechanical Engineer	41.31	2.0	82.62
Placard (source: www.edecals.com using a 2.5 inch tall lettering stating "XX Standees Maximum" and a quantity of 500)				8.99
Installation of Placard	51-2099 Assembler and Fabricator	13.74	0.10	1.37
Total burden per test bus			2.10	92.98
Total Annual Burden (16 buses)			**33.6**	**$1487.68**

The proposed revisions to test scheduling (49 CFR 665.11) introduce additional documentation

requirements during the test request process. The manufacturer must verify that the vehicle complies with applicable FMVSS requirements and submit the location of manufacture for all of the major bus subsystems. The estimated cost and labor burden of these requirements for this information collection is presented in Table 5.

TABLE 5: Estimated Burden and Cost for the **Revised Test Scheduling Requirements**

Item	**Labor Category (BLS code/title)**	**Labor Rate ($/hr)** (May 2013 BLS Statistic)	**Preparation Time** (hrs)	**Cost** ($)
Submission of Documentation for 49 CFR part 565 Vehicle Identification Number Requirements; 49 CFR part 566 Manufacturer Identification; 49 CFR part 567 Certification; and where applicable, 49 CFR part 568 Vehicle Manufactured in Two or More Stages – All Incomplete, Intermediate and Final-Stage Manufacturers of Vehicle Manufactured in Two or More Stages	17-2141 Mechanical Engineer	41.31	1.0	41.31
Submission of Documentation identifying the location of manufacture for all of the major bus subsystems	17-2141 Mechanical Engineer	41.31	1.0	41.31
Total burden per test bus			2.0	82.62
Total Annual Burden (16 buses)			**32.0**	**$1321.92**

The total burden and cost for this rule is summarized in Table 6. FTA estimates the total annual

burden and cost of the information collections resulting from the changes in this rule as 300 hours and $12,593. The previous burden estimate for the existing program was 205 hours and $9,016.

TABLE 6: Total Estimated Annual Burden and Cost of the Bus Testing Pass/Fail Rule

Information Collection	**Annual Burden (hr)**	**Annual Cost ($)**
Test Request Process	**54.5**	**$2251.40**
Test Scheduling Process	**160.0**	**$6764.64**
Request of Retesting to Address a Failed Performance Standard	**20**	**$766.52**
Revised Bus Pay loading Procedures	**33.6**	**$1487.68**
Revised Test Scheduling Requirements	**32.0**	**$1321.92**
Total	**300.1**	**$12,592.16**

13. Estimate of total annual cost burden to respondents or record keepers resulting from the collection of information (not including the cost of any hour burden shown in Items 12 and 14).

There are no additional costs beyond that shown in Items 12 and 14.

14. Estimate of annualized cost to the federal government.

The information collected by LTI to set-up an individual bus model test program requires approximately 4 hours of Office/Admin Support per test at a cost of $16.78 per hour. FTA's estimates that there will be between 16-18 bus testing requests. For the purpose of calculating cost to the federal government, FTA will use 18 testing requests. The information collected by LTI to set-up an individual bus model test program requires approximately 4 hours of Office/Admin Support per test at a cost of $16.78 per hour. For 18 tests a year this equates to $1208.16 annually. FTA pays 80 percent of this cost resulting in an annual cost to the federal government of $966.53.

FTA will spend an estimated 2 hours reviewing each of the 18 test requests that result in a scheduled test for a total of 36 hours and a cost of $2,025. For each of the 28 test requests that do not result in a scheduled test FTA expects to spend an average of 16 hours reviewing and analyzing the impact to the previous test results for an annual total of 448 hours. At an actual labor rate of $56.25 per hour (GS-14), this results in an annual cost of $25,200 to the federal government for testing request reviews.

The estimated total federal cost of the Bus Testing Program information collections is $28,191.53 ($966.53 + $2,025 + $25, 200).

15. Explain the reason for any program changes or adjustments reported in Items 13 or 14 of

OMB Form 83-I.

The change in this collection reflects the program changes introduced by the Pass/Fail Final Rule. As a result of the new pass/fail standard and new aggregated scoring system for buses and modified vans, the burden hours increased from 205 to 300.1 resulting in an increase of 95 hours. Thus, the cost associated with the increased burden increased from $9016 to 12,592 which is an increase of $3,576.

16. Plans for tabulation and publication for collections of information whose results will be published.

The database of bus resting reports is available on LTI's website at http://altoonabustest.com/.

17. If seeking approval not to display the expiration date for OMB approval, explain the reasons.

There is no reason not to display the expiration date of OMB approval.

18. Explain any exception to the certification statement identified in Item 19 of OMB Form 83-I.

There are no exceptions.

B. Collections of information employing statistical methods.

FTA does not utilize statistical methods to collect the bus testing program information.