

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 grantee certifies to FTA that the bus models being procured are compliant with 49 CFR 665 *Bus Testing*. In turn, FTA grantees delegate the burden of demonstrating compliance to the bus manufacturers. The Bus Testing Program provides assistance to transit bus manufacturers with achieving compliance with the testing requirement. A variety of information is collected from bus manufacturers during the bus testing process.

Justification

This is an update to a currently approved information collection request. The paperwork burden associated with the current program reflects the establishment of a standardized web-based form on the FTA external website, requesting test services from the Bus Testing Program. As part of the previous terms of clearance, FTA was requested to develop a standard form for the collection to allow respondents entry into the program. This information collection request satisfies that requirement and improves on the effective use of information technology as mandated in an Executive Order dated September 5, 2014 to increase, “*Web-based Interactive Technologies: Data Search Tools, Calculators, and the Paperwork Reduction Act*”.

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. 49 CFR Part 665.7(a) states that a recipient of federal funds must self-certify that any new bus model acquired with FTA financial assistance has been tested in accordance with the requirements of Part 665, and that the recipient has received a copy of the applicable Bus Testing Report before expenditure of any FTA funding on a bus.

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).

The Bus Testing Program has proven to be valuable to the transit industry. As of March 31, 2015 testing has been completed on 437 buses with a total of 9,214 bus malfunctions identified. Of those malfunctions, 44 could have resulted in serious injuries or significant property damage had they occurred in revenue service. Many of the other malfunctions would adversely impact 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. How, by whom, and for what purpose the information is to be used.

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; and 4) to collect new bus model design, and component information for inclusion in the final report.

Information addressing items 1 & 2 will be collected by FTA through a standardized electronic form to be available on the FTA internet site and used by FTA to process the request for new bus model testing. An outline of this proposed standard form is included as an information collection instrument in the ROCIS system. 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](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 as an information collection instrument in the ROCIS system and online at [http://146.186.225.57/scheduling\\_pdfs/Contract\\_Dec\\_2013.pdf](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.

Full testing consist of nine test related to the buses: safety, structural integrity and durability, reliability, performance, maintainability, noise, fuel economy, brake, and emissions. The data from all the tests are compiled into a test report that is made available to the manufacturer to provide information during the procurement process.

Throughout the life of a bus, there are design changes performed to keep the models current with new technology and specific new transit requirements. To reduce testing costs and test time, FTA also offers a Partial Testing option for bus models that have previously undergone full testing. Scheduling of partial testing of these updated bus models requires less information gathering compared to a full testing procedure. Partial Testing requires that bus manufacturers submit a “Request for partial testing determination” to the FTA Bus Testing Program Manager prior to scheduling testing with PTI. FTA accepts either a letter or an email message that delineates all of the significant engineering changes performed to the existing bus model. FTA reviews the request and responds via e-mail with a determination, identifying which tests need to be performed based upon the types of design changes to the bus outlined in the request. Once the manufacturer obtains this partial test determination, they can schedule their partial test with PTI using the same process as that required for Full Testing.

Once the Full or Partial Testing is complete, PTI produces a Bus Testing Report. All the data collected from the various tests on a bus are compiled into this report that contains the test results and, if the manufacturer requests, recommendations for possible design changes or improvements. *(There are no minimum performance standards for the tests nor are the tests currently rated "pass" or "fail.").*

Before funds can be expended, the bus manufacturer self-certifies to an FTA grantee that the bus has been tested at the Bus Testing Center. This enables the recipient to manage risk during procurement by providing an unbiased means of comparing bus performance on standardized tests.

### 3. Consideration of improved information technology.

FTA has created a new standardized web-based test request form that will be available on the FTA external website ([www.fta.dot.gov](http://www.fta.dot.gov)) in early 2017. This is a change from the current test request process which accommodates formal written test requests via mail and requests made to the FTA program manager via e-mail.

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.

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 a bus needs to be tested.

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.

A 60-day Federal Register notice was published on November 4, 2015 Vol. 80, No. 213 (pages 33255 and 33256), soliciting comments prior to submission to the Office of Management and Budget (OMB). No comments were received. The 30-day Federal Register notice was published Vol. 81, No.10 (page 2293).

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, PTI will provide a bus testing report to the bus manufacturer or entity that entered into a contract with the Center. Unless the manufacturer or entity specifies in writing that the vehicle will never be marketed, 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.

Total Annual Respondents: 46

Total Annual Burden Hours: 205 hours

Total Annual Burden Cost: \$9016

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. In 2013, there were 46 requests for testing with a total of 18 tests scheduled. Eleven requests were for full testing, seven were for partial testing that needed testing, and 28 were partial test requests that did not result in a need for testing. The hourly burden and annualized cost estimates assume that the number of test requests will remain at 46 annually and that FTA will use a standardized form for requesting testing and that all 46 requests will require 0.5 hour to complete regardless if the request is for full or partial testing. The hourly burden and annualized cost to respondents from the test request process is outlined in Table 1 below. The estimate assumes that a mechanical engineer will complete the standardized test request form.

Of the 35 partial test requests in 2013, five were of a higher level of complexity that FTA needed more information in order to assess the scope of the partial test program. The additional information consists of engineering drawings, 3-D depictions, finite element analyses, sub-system specifications, and similar documents. These items are already part of the bus manufacturers' normal product development process and therefore do not require additional time or cost to prepare. FTA estimates that each of these five expanded information collections required an additional 4 hours each to prepare and send to FTA.

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

Item	Labor Category (BLS code/title)	Labor Rate (\$/hr) (May 2013 BLS Statistic)	Time (hr)	Annual Quantity	Total Annual Burden (hr)	Total Annual Cost (\$)
Standardized Test Request Form	17-2141 Mechanical Engineer	41.31	0.5	46	23.0	950.13
Partial Test Determination Request (Expanded)	17-2141 Mechanical Engineer	41.31	4.0	5	20.0	826.20
<b>Total Annual Partial Test Determination Request Burden</b>					<b>43.0</b>	<b>\$1771</b>

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 admin personnel will be involved in the preparation of the request. In 2013, a total of 18 tests were scheduled. The quantity of buses tested in a given year varies by the transit market demand for new bus model features or capabilities. FTA believes that the scheduling of 18 tests is at the upper end of the range; with 15-16 tests scheduled annually being more common. Labor categories and rates from the Bureau of Labor Statistics (<http://www.bls.gov/oes/current/>) were used to estimate annual costs.

TABLE 2: Test Scheduling Burden Estimate

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	17-2141 Mechanical Engineer	41.31	2.0	82.62
FMVSS Certification Statement	17-2141 Mechanical Engineer	41.31	1.0	41.31
Bus Design Characteristics Information	17-2141 Mechanical Engineer	41.31	2.0	82.62
Assembling/Mailing of Test Request Package	43-000 Office/Admin Support	16.78	1.0	16.78
Postage for package (USPS Priority Mail)				5.60
Total burden per test request			9.0	390.71
<b>Total Annual Burden (18 tests a year)</b>			<b>162</b>	<b>\$7033</b>

FTA estimates the total annual respondents for this information collection to be **46** (18 + 28). FTA estimates total annual burden of the information collections as **205 hours** (162 + 43) and a total cost of **\$8804** (\$7033 + \$1771). **The previous burden estimate from 2013 was 210 hours with a cost of \$9016.** The updated estimated labor hours and cost are the result of using the actual number of respondents from 2013 and the use of labor rates from the Department of Labor.

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.

Total annualized cost to the federal government: \$28,191.53

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 annual 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 minor change in this collection resulted from the introduction of a standardized web-based test request form.

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

The database of bus resting reports is available on PTI'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.