

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 test 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 decisions.

Justification

This is a revision of a currently approved collection. The change in this collection reflects a reduction due to FTA's ability to accurately capture data based on the actual number of respondents, burden hours and cost in FY 2013.

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 (PTI), an interdisciplinary research unit of The Pennsylvania State University in the College of Engineering. Founded in 1989, PTI operates the Bus Testing Center, collecting all information from bus manufacturers under a cooperative agreement with the Federal Transit Administration (FTA). The facility houses four bus maintenance and test bays and is fully equipped to perform heavy vehicle maintenance and repair.

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 July 31, 2014 testing has been completed on 428 buses. Over the course of testing thus far, more

than 9,107 malfunctions have been identified by the Bus Testing Program, resulting in many design changes. Of those malfunctions, the Bust Testing Center identified that 41 could have resulted in serious injuries or significant property damage had they occurred in revenue service. Many would have adversely impacted service (e.g., resulting in road calls stranding passengers), and all would have increased 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 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.

There are two different testings’ completed by PTI, Full Testing and Partial Testing. Bus Manufacturers can find the procedures for each testing online at [http://146.186.225.57/scheduling\\_pdfs/Test\\_Procedure\\_Summary.pdf](http://146.186.225.57/scheduling_pdfs/Test_Procedure_Summary.pdf).

Full Testing is conducted on a new bus model that has not been tested previously at the Altoona Bus Research and Testing Center. In order to effectively schedule a bus test at the Bus Testing Center, bus manufacturers must submit a variety of information to PTI. The steps for submitting a vehicle for testing are outlined on PTI’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 the actual request. The request consists of the bus manufacturer submitting two testing contracts. The contract outlines that PTI 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; bus design characteristics, spare parts inventory list, evidence of adequate liability and physical damage insurance coverage on the bus, a certification that the bus meets all applicable Federal Motor Vehicle Safety Standards, and a check for the manufacturer’s share of the testing fee. Most of this information can be found in the vehicle data section of the final testing report. The bus testing template is included as an information collection instrument in the ROCIS system. Once this information is obtained, PTI will initiate the full testing of the new bus model.

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.

Please note, MAP-21 mandated the implementation of a Pass-Fail requirement for the Bus Testing Program. FTA is developing a framework for this regulation and is expected to issue a NPRM in the late-winter/early-Spring 2015.

### 3. Consideration of improved information technology.

The full testing information package, process of scheduling testing with PTI and the bus testing report are available for review and submission online. The PTI website outlines the instructions for testing at <http://altoonabustest.com/>. For the partial testing request, the FTA Program Manager accepts the request electronically via email and responds with a determination. (Note: 100% of bus manufacturers use an email message to determine eligibility for partial testing).

The database of bus testing 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 June 10, 2014 (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 August 22, 2014 (pages 49832 and 49833).

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.

The estimated hourly and cost burden of the Bus Testing Program for the full testing process is

presented in Table 1 (see below). The estimate is based on the preparation of each of the required documents necessary to successfully schedule a full bus testing. FTA estimates that a lawyer, accountant, mechanical engineer, and admin personnel will be involved in the preparation of the request. Additionally, the cost of postage was included. In 2013, 18 total requests were made for full bus testing. This resulted in a total of 18 (full testing) annual respondents for this information collection. Labor categories and rates from the Bureau of Labor Statistics (<http://www.bls.gov/oes/current/>) were used to estimate annual costs.

TABLE 1: Preparation of the Full Testing Request Package for PTI

<b>Item</b>	<b>Labor Category (BLS code/title)</b>	<b>Labor Rate (\$/hr) (May 2013 BLS Statistic)</b>	<b>Preparation Time (hrs)</b>	<b>Cost (\$)</b>
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>

The estimated hourly and cost burden for the FTA Partial Testing determination process is presented in Table 2 (see below). The estimate is based on partial test determination requests received in 2013. One-hundred percent of the requests were completed by bus manufacturers utilizing e-mail. In 2013, there were 28 total partial bus testing requests. This resulted in 28 partial testing) annual respondents for this information collection. The majority of these requests were considered basic. A basic request typically consist of a one or two paragraph (email), describing the existing bus model's previous test history and the proposed design change. FTA estimated that this would require up to one-hour to prepare. Of the 28 requests, 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 2: Preparation of the Partial Test Determination Request for FTA

Item	Labor Category (BLS code/title)	Labor Rate (\$/hr) (May 2013 BLS Statistic)	Time (hrs)	Annual Quantity	Total Annual Hours	Total Annual Cost (\$)
Partial Test Determination Request (Basic)	17-2141 Mechanical Engineer	41.31	1.0	28	28	1156.68
Partial Test Determination Request (Expanded)	17-2141 Mechanical Engineer	41.31	4.0	5	20	826.20
<b>Total Annual Partial Test Determination Request Burden</b>					<b>48</b>	<b>\$1983</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 **210 hours** (162 + 48) and a total cost of **\$9016** (\$7033 + \$1983). **The previous burden estimate from 2011 was 216 hours with a cost of \$10,440.** The limited reduction in the estimated labor hours and cost are the result of using the actual number of respondents from 2013, the increased use of email to collect the request/information, 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.

The information collected by LTI to set-up an individual bus model test program requires approximately 4 hours per test at a cost of \$16.78 per hour. For 18 tests a year this equates to \$1208 annually.

For each of the 28 partial test determination requests, FTA spends an average of 16 hours reviewing them and analyzing the impact to the previous test results. 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.

The estimated total federal cost of the Bus Testing Program information collections is \$26,408.

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 a reduction due to FTA's ability to accurately capture data based on the actual number of respondents, thus decreasing burden hours and cost. In addition,

the previous 2011 estimates in item 14 included the costs of the testing fee. Item 12 & 14 has been revised to only include the costs related to the actual information collection from the respondents.

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 bus testing data due to the legislative mandate of the program that each new bus model must be tested. The bus testing database allows users to export certain data from the bus testing reports that can then be subjected to statistical analyses by the user.