

**Department of Transportation  
Office of the Chief Information Officer**

Cargo Tank Specification Requirements

OMB Control No. 2137-0014  
Supporting Statement

Introduction

This is to request the Office of Management and Budget's (OMB) renewed three-year approved clearance for the information collection entitled, "Cargo Tank Specification Requirements," OMB Control No. 2137-0014, which is currently due to expire on November 30, 2007.

Part A. Justification.

1. Circumstances that make collection of information necessary. .

This is a request for renewal without a material change to an existing approval under OMB Control No. 2137-0014 for information collection and recordkeeping requirements pertaining to the manufacture, certification, inspection, repair, maintenance, and re-qualification of Department of Transportation (DOT) specification cargo tank motor vehicles. This information collection corrects a mathematical error of 514 hours discovered during the renewal process, accounts for the expiration of a one-time, start-up cost of \$1,595,000.00, and establishes an annual burden cost of \$2,531,460.00.

Information collection and recordkeeping requirements contained in this request have been determined to be essential by the Pipeline and Hazardous Materials Safety Administration (PHMSA). Based on research findings, petitions for rule change, incident reports on the release of hazardous materials resulting from cargo tank motor vehicle collisions and overturns, and unloading incidents, the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) were revised to enhance the construction integrity of cargo tanks and the operation, maintenance, repair, and re-qualification of all DOT specification cargo tanks to decrease both the probability and actual number of hazardous materials releases due to accident or tank failure.

The cargo tank manufacturing specifications are in CFR Part 178, Subpart J; the qualification and maintenance requirements in Part 180, Subpart E; and require the registration of cargo tank manufacturers and repairers under Part 107, Subpart F. The information collection and recordkeeping burdens in these sections are imposed on manufacturers, assemblers, repairers, re-qualifiers, motor carriers, and operators of DOT specification cargo motor vehicles. Authority for rulemaking and current regulations is the Federal hazardous materials transportation law, U.S.C. 5110.

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

Sections in the HMR applicable to this information collection include, but are not limited to:

Sections 107.501; 107.502; 107.503; 107.504; 173.33; 177.802; 177.804; 178.320; 178.337; 178.338; 178.345; 178.346; 178.347; 178.348; 180.405; 180.407; 180.409; 180.413; 180.415; 180.416; 180.417.

- a. Registration statements. Cargo tank manufacturers, repairers, and assemblers will register with DOT and furnish information relative to their qualifications to perform the specified function in accordance with the HMR. The registration statements will be used by DOT, State and local agencies, and other interested parties to identify and locate, including mobile inspection sites, persons engaged in the manufacture, assembly and certification, inspection, or repair of cargo tanks or cargo tank motor vehicles manufactured under the terms of an exemption or to a DOT specification. A copy of the registration information will be retained at the registrants' place of business. The registration information will be used by DOT to verify that these persons are qualified to perform the specified functions and to monitor their compliance with the HMR.
- b. Design certificates. These certificates verify that the cargo tank design type for a single cargo tank or series of cargo tanks made to the same design meets the requirements of the applicable specification are prepared by a design certifying engineer and issued to a cargo tank manufacturer or repairer. The approved paperwork (including sketches, drawings, and calculations) is retained by the manufacturer or repairer. These certificates are important to cargo tank owners and to enforcement personnel in verifying that a cargo tank design meets the applicable specification requirements.
- c. Manufacturer's data reports or certificate and related papers. These records are prepared by cargo tank manufacturers for certification that a cargo tank was designed, manufactured, and tested in accordance with the HMR. Included are certificates certifying materials of construction and the welder qualification records specified by the ASME Code, certificates certifying the rated flow capacity of pressure relief devices, design certificates certifying that the designs, sketches, drawings, and calculations meet the requirements of the applicable specification and other records pertaining to the original hydrostatic proof test. These records are maintained by the cargo tank manufacturer and copies are provided to the purchaser. They are used by a cargo tank owner and DOT to verify that a cargo tank motor vehicle meets all requirements of the applicable specification.
- d. Vehicle certification. These records which include the manufacturer's data report or certificate and related papers are provided by the manufacturer of a DOT

specification cargo tank to the owner. They are maintained by the cargo tank owner and the motor carrier using the cargo tank for verification that the cargo tank was manufactured and tested in accordance with applicable specification. If the vehicle is sold, copies of the records are furnished to the purchaser.

- e. Test and inspection reports. In order to assure the continuing integrity of cargo tank motor vehicles, certain periodic testing and inspections must be performed by qualified persons who have been identified to DOT. Included are the pressure and leakage test, external and internal visual inspections, lining and tank shell and head thickness tests, repair or modification reports, and records of cargo tanks in certain corrosive service. Records of the testing and inspection results are maintained by the cargo tank owner. If the vehicle is sold, certain of these records are furnished to the purchaser. These records are used by owners, motor carriers, and DOT enforcement personnel to determine whether a cargo tank has been properly repaired or maintained. Certain types of cargo tanks, such as the MC 338 for use in transporting flammable cryogenic liquids, are not subject to the re-qualification testing because these cargo tanks are leak and pressure tested before each trip.

3. Extent of automated information collection.

The specifications have been written as general as possible and as performance specifications to allow manufacturers and motor carriers to use the type of equipment and processes best suited for their facilities. The Government Paperwork Elimination Act directs agencies to allow the option of electronic filing and recordkeeping by October 2003, when practicable. Records documenting inspection, testing, re-qualification, and maintenance programs may be kept electronically. Electronic filing and recordkeeping is authorized; however, PHMSA does not require these records to be submitted to us, so it is not applicable.

4. Efforts to identify duplication.

There is no duplication as each manufacturing operation or cargo tank motor vehicle is unique.

5. Efforts to minimize the burden on small businesses.

Each manufacturer and cargo tank is unique and the information cannot be duplicated. Applicable requirements have been made as general as possible to minimize burdens on affected persons and still provide for the safe transportation of hazardous materials in cargo tank motor vehicles. PHMSA decreased the frequency that manufacturers and repair facilities are required to register with PHMSA from three years to six years in a previous rulemaking. Any further extension may adversely affect safety.

6. Impact of less frequent collection of information.

Due to the hazards involved, if collection of information and recordkeeping were required less frequently, the hazards to public safety would increase due to the probability of incidents during transportation. A cargo tank which has been improperly constructed, repaired, or maintained may fail to contain its contents in the event of an incident or even during the course of normal transportation.

7. Special circumstances.

This collection of information is conducted in a manner consistent with the guidelines in 5 CFR 1320.5(d)(2).

8. Compliance with 5 CFR 1320.8.

A 60-Day notice and request for comments was published in the Federal Register on February 26, 2007 under Docket No. PHMSA-2007-27181 (Notice No. 07-1) (72 FR 8421) inviting public comment on the request for renewal of this information collection. The comment period closed on April 27, 2007. No comments pertaining to this information collection were received.

A 30-Day notice and request for comments was published in the Federal Register on May 23, 2007 under Docket No. PHMSA-2007-27181 (Notice No. 07-2) (72 FR 29033) inviting public comment on the request for renewal of this information collection. The comment period closed on June 22, 2007. No comments pertaining to this information collection were received.

9. Payments or gift to respondents.

There is no payment or gift provided to respondents associated with this collection of information.

10. Assurance of confidentiality.

All information to be collected complies with the Freedom of Information Act, the Privacy Act of 1974, and OMB Circular A-108.

11. Justification for collection of sensitive information.

Not applicable. Information is not of a sensitive nature.

12. Estimate of burden hours for information requested.

Estimate of annual burden hours: 101,507 hours (389 + 39 + 33 + 3 + 138 + 14 + 583 + 58 + 14,523 + 1,452 + 1,250 + 36,900 + 46,125)

Estimate of annual burden cost: \$2,531,460.00 (\$12,840.00 + \$1,080.00 + \$4,560.00 + \$19,230.00 + \$399,375.00 + \$18,750.00 + \$2,075,625.00)

The previously estimated annual information collection burden was 102,021. Due to mathematical errors discovered during the development of this information collection, the revised estimated annual information collection burden has been determined to be 101,507, or a decrease of 514 annual burden hours.

The estimated annual burden cost is \$2,531,460.00. This estimate accounts for the expiration of a one-time, start-up cost of \$1,595,000.00. The calculations for each segment of the information collection requirements based on the following:

- a. Completion of a registration statement is estimated to take approximately 20 minutes. There are an estimated 7,000 respondents: cargo tank manufacturers (145), repair facilities (195), and design certifying engineers/registered inspectors (6,660). The information collection burden for this requirement is 2,333 hours once every six years, or 389 hours annually. The recordkeeping burden is estimated at 10% of the 389 hours of the information collection burden, or approximately 39 hours annually.

$7,000 \text{ respondents} \times 20 \text{ minutes} = 140,000 \text{ minutes} / 60 \text{ minutes per hour} = 2,333.33 \text{ hours} / 6 \text{ years} = 388.89$  or approximately 389 annual burden hours.  $389 \text{ information collection burden hours} / 10\% = 38.9$ , or 39 recordkeeping burden hours. The total information collection burden for this requirement is (389 hours + 39 hours) 428 hours.

The cost per hour for this requirement is estimated to be approximately \$30.00 per hour, or \$12,840.00 annually.

$428 \text{ hours} \times \$30.00 \text{ per hour} = \$12,840.00$

Updating a change in the registration information is estimated to take approximately 15 minutes and will be submitted by approximately 130 registrants annually. This amounts to approximately 33 hours annually. The recordkeeping burden is estimated at 10% of the 33 hours of the information collection burden, 3.3, or 3 hours annually. The total information collection burden for this requirement is (33 + 3) 36 hours.

130 respondents x 15 minutes = 1,950 minutes / 60 minutes per hour = 32.5 hours or approximately 33 annual burden hours.

33 information collection burden hours / 10% = 3.3 or approximately 3 annual recordkeeping burden hours.

The cost per hour for this requirement is estimated to be approximately \$30.00 per hour, or \$1,080.00 annually.

36 hours x \$30.00 per hour = \$1,080.00.

- b. Completion of a design certificate is estimated to take approximately 2.5 hours each. A design certificate is prepared by a design certifying engineer for a cargo tank or a series of cargo tanks made to the same design. Therefore, a certificate is not required to be completed for each cargo tank. It is estimated that 4,809 specification cargo tanks are manufactured annually. Assuming that 55 prototype designs or design modifications will require preparation of a design certificate, the annual burden is estimated at 137.5 or 138 hours annually (55 x 2.5 hours/each). The recordkeeping burden is estimated at 10% of the annual information collection burden of 138, or 13.8 hours annually.

55 prototypes x 2.5 hours each = 137.5 hours, or approximately 138 annual burden hours. The recordkeeping burden is estimated at 10% of the 138 hours of the information collection burden, or 13.8, or 14 hours annually. The total information collection burden for this requirement is (138 + 14) 152 hours.

The cost per hour for this requirement is estimated to be approximately \$30 per hour, or \$4,560.00 annually.

152 hours x \$30.00 per hour = \$4,560.00

Additional information is required to be included on test and inspection reports. However, this information should already be available to test and inspection facilities and the additional cost of including it on reports will be minimal. It is estimated that it will take approximately 5 minutes to add the additional information to test and inspection report with 7,000 facilities x 5 minutes = 583 burden hours annually.

7,000 respondents x 5 minutes = 35,000 minutes / 60 minutes per hour = 583.333, or approximately 583 annual burden hours. The recordkeeping burden is estimated at 10% of the 583 information collection burden, 58.3, or 58 hours annually. The total information collection burden for this requirement is (583 + 58) 641 hours.

The cost per hour for this requirement is estimated to be approximately \$30 per hour, or \$19,230.00 annually.

641 hours x \$30.00 per hour = \$19,230.00.

- c. Completion of a manufacturer's data report or certificate by a manufacturer or the issuance of a new manufacturer's certificate by inspectors for certification of a repaired or rebarrelled cargo tank is estimated at 2.5 hours per cargo tank. Based on an annual production of 4,809 new cargo tanks and an estimated 1,000 cargo tanks being rebarrelled or remanufactured, the annual is as follows:

4,809 new cargo tanks + 1,000 cargo tanks being rebarrelled / remanufactured = 5,809 x 2.5 hours = 14,522.5, or approximately 14,523 annual burden hours. The recordkeeping burden is estimated at 10% of the information collection burden, 14,523, or 1,452.3 hours. The total information collection burden for this requirement is (14,523 + 1,452) 15,975 hours.

The cost per hour for this requirement is estimated to be approximately \$25.00 per hour, or \$399,375.00 annually.

15,975 hours x \$25.00 per hour = \$399,375.00.

- d. Approximately 15,000 cargo tanks are repaired or modified annually and a record is made of the repair or modification by a cargo tank manufacturer or repair facility. This is usually in the form of an itemized bill or other such document produced as a normal business document. The owner of the cargo tank need only file this document and supply it to a subsequent purchaser of the cargo tank. The estimated time for this requirement is approximately 5 minutes at a cost of \$15 per hour. The total information collection burden for this requirement is 1,250 hours.

15,000 cargo tanks repaired or modified x 5 minutes = 75,000 minutes / 60 minutes per hour = 1,250 hours annually.

The cost per hour for this requirement is estimated to be approximately \$15.00 per hour, or \$18,750.00 annually.

1,250 hours x \$15.00 = \$18,750 annually.

- e. The burden for testing and inspection of cargo tanks is estimated based on a total specification cargo tank motor vehicle inventory of approximately 123,000. The total annual burden for this requirement includes the burden hours and costs for performing the external or internal visual inspections, lining inspection, leakage, pressure and thickness tests, as applicable. In addition, it includes re-qualification markings required on the cargo tank. PHMSA is estimating that approximately 20% of the cargo tanks will be given the internal visual inspection and pressure test annually. These inspections and tests take approximately 1.5 hours to complete (123,000 x 1/5 = 24,600 x 1.5 hrs = 36,900 hours).

It is also estimated that approximately 25% of the cargo tank motor vehicle inventory will be subjected to the external visual tests, and/or the thickness test and lining inspection for cargo tanks used in transporting corrosive materials. These tests are estimated to take approximately 1.5 hours to complete. ( $123,000 \times \frac{1}{4} = 30,750 \times 1.5 \text{ hrs} = 46,125 \text{ hours}$ ). The total burden hours for testing and inspection of cargo tanks are  $36,900 + 46,125 = 83,025$  burden hours.

$123,000 \times \frac{1}{5} = 24,600 \times 1.5 \text{ hours} = 36,900$  annual burden hours.  
 $123,000 \times \frac{1}{4} = 30,750 \times 1.5 \text{ hours} = 46,125$  annual burden hours.  
 $36,900 + 46,125 = 83,025$  total annual burden hours.

The cost per hour for this requirement is estimated to be approximately \$25.00 per hour, or \$2,075,625.00 annually.

$83,025 \text{ hours} \times \$25.00 \text{ per hour} = \$2,075,625.00$  annually.

13. Estimate of total annual costs to respondents.

The estimated total annual costs to respondents as detailed in Item 12 above, is \$2,531,460.00.

The one-time, start-up burden cost of \$1,595,000.00 has expired. These costs resulted from the implementation of the requirements under the Docket HM-213 final rule, as follows:

Docket HM-213 required more information to be included on test and inspection reports. The information to be included should already be available to test and inspection facilities and the additional cost of including it on reports were minimal. There would be a one-time cost of approximately \$50 per facility (approximately 7,000 facilities or \$350,000 to revise the format of their databases.

Docket HM-213 required additional markings on the specification plate for MC 331 and MC 338 cargo tanks. The revisions would have a small initial cost associated with them due to development of new specification plates and certifications of compliance, but would have no impact after this change is made. The change in specification plates was estimated to present a cost of not more than \$250 per manufacturer/assembler (approximately 60 entities) for a one-time cost of \$15,000.

Docket HM-213 final rule required that the emergency shutoff devices on all existing applicable cargo tanks be marked to communicate this purpose. New cargo tanks are already required to be marked. It was estimated that 123,000 cargo tanks to be marked at an approximate cost of \$10 per tank will cost approximately \$1,230,000. (NTSB Recommendation)



14. Estimate of cost to the Federal government.

The estimated annual cost to the Federal Government is \$4,049 based on the following:

The cost for the cargo tank registration program is based on 80 hours of professional time reviewing the submissions and entering the information into the database. Processing the registration statements is estimated to take approximately 15 minutes each. The estimated cost is approximately \$ 26.60 per hour. Computer time is estimated at approximately 20 hours at \$ 75 per hour. The total cost to the Federal Government is calculated to be  
 $(80 \times \$ 26.60) + (15 \text{ minutes} \times (380/6)/60) \times \$26.60 + (20 \times \$ 75) =$   
 $\$2,128.00 + \$421.00 + \$1,500.00 =$   
 $\$ 4,049.$

15. Explanation of program changes or adjustments.

There is no change in burden as a result of this request for renewal.

16. Publication of results of data collection.

There is no publication for statistical use and no statistical techniques are involved.

17. Approval for not displaying the expiration date of OMB approval.

Approved OMB number is prominently displayed in the text of 49 CFR 171.6.

18. Exceptions to certification statement.

There is no exception to PHMSA's certification of this request for information collection approval.

Part B. Collections of Information Employing Statistical Methods.

1. Describe potential respondent universe and any sampling selection method to be used.

Not applicable.

2. Describe procedures for collecting information, including statistical methodology for stratification and sample selection, estimation procedures, degree of accuracy needed, and less than annual periodic data cycles.

Not applicable.

3. Describe methods to maximize response rate.

Not applicable.

4. Describe tests of procedures or methods.

Not applicable.

5. Provide name and telephone number of individuals who were consulted on statistical aspects of the information collection and who will actually collect and/or analyze the information.

Not applicable.