

**Supporting Statement
for
Nondestructive Testing of Certain
Cargo Tanks on Unmanned Barges**

A. JUSTIFICATION

1. Circumstances that make the collection of information necessary.

According to 46 USC 3703, the Secretary shall prescribe regulations for the design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of vessels carrying liquid bulk dangerous cargoes, that may be necessary for increased protection against hazards to life and property, for navigation and vessel safety, and for enhanced protection of the marine environment. The Coast Guard requires an internal inspection interval for pressure-vessel-type cargo tanks, which carry liquid bulk dangerous cargoes. Pressure-vessel-type cargo tanks on unmanned tank barges that are 30 years old or older are required for nondestructive testing at 10-year intervals.

The nondestructive testing requirement was selected as an alternative regulatory strategy to shorten the internal inspection interval of a tank barge as it ages. Internal inspection and accompanying gas-freeing costs are high. The lay-time necessary in getting the barges to a gas freeing facility is also costly. Longer internal inspection intervals result in lower costs to the owner.

This information collection supports the following strategic goals:

Department of Homeland Security

- Prevention
- Protection

Coast Guard

- Maritime Safety
- Protection of Natural Resources

Prevention Directorate (G-P)

- Safety: Eliminate deaths, injuries, and property damage associated with commercial maritime operations.
- Human and Natural Environment: Eliminate environmental damage associated with maritime transportation and operations on and around the nation's waterways.

2. By whom, how, and for what purpose the information is to be used.

According to 46 CFR 38.25-1, an unmanned tank barge with a pressure-vessel-type cargo tank, carrying cargoes at temperatures of -67 degrees Fahrenheit (or -55 degrees Celsius) or warmer, must be subjected to an internal inspection within 10 years after the last internal inspection. When such a vessel is 30 years old or older, determined from the build date, the owner shall conduct nondestructive testing of the tank, in accordance with Section 38.25-3, during each internal inspection.

According to 46 CFR 38.25-3, before nondestructive testing may be conducted to meet section 38.25-1, the owner shall submit a proposal to the Officer in Charge, Marine Inspection (OCMI) for acceptance that includes:

- 1) The test methods and procedures to be used, all of which must meet Section V of the ASME Boiler and Pressure Vessel Code (1986);
- 2) Each location on the tank to be tested; and
- 3) The test method and procedure to be conducted at each location on the tank.

If the OCMI rejects the proposal, OCMI informs the owner of the reasons why the proposal is rejected. If the OCMI accepts the proposal, the owner shall ensure that:

- 1) The proposal is followed; and
- 2) Nondestructive testing is performed by qualified personnel.

Within 30 days after completing the nondestructive test, the owner shall submit a written report of the results to OCMI.

According to the Coast Guard's MISLE¹ database, there are currently 79 unmanned tank barges that must undergo nondestructive testing every 10 years.

The proposal enables the Coast Guard to determine if the proposed nondestructive testing methods and scope are suitable for the purposes of detecting defects. The requirement to submit the results of the nondestructive testing enables the Coast Guard to accurately assess the condition of the tanks and to evaluate the suitability of the tank for continued service.

3. Consideration of the use of improved information technology.

The respondent can either mail or fax the proposal and testing results to the Coast Guard. We estimate that 100% of the reporting requirements can be submitted electronically. At this time, we estimate that 50% are received electronically.

4. Efforts to identify duplication. Why similar information cannot be used.

A review of the Code of Federal Regulations did not reveal any other similar requirements. Given the specificity of pressure-vessel-type cargo tanks of unmanned barges, there is no similar information available elsewhere for these purposes.

5. Methods to minimize the burden to small businesses if involved.

Some of the entities that own unmanned tank barges with tanks that are pressure-vessel-type cargo tanks and 30 years old or older are small entities. To minimize the burden to those small entities, the once every 10-years nondestructive testing requirement was selected as an alternative to inspecting more frequently as a tank barge aged.

6. Consequences to the Federal program if collection were not done or conducted less frequently.

Without the submission of both the proposal and results of nondestructive testing, the Coast Guard would not be able to assess the condition of the tank nor the effectiveness of nondestructive testing, and would find it necessary to increase the frequency of internal inspection as a tank aged. This would result in an increased cost to the owners of the tank barges.

¹ Marine Information for Safety and Law Enforcement (MISLE).

7. Explain any special circumstances that would cause the information collection to be conducted in a manner inconsistent with guidelines.

Information is collected in a manner consistent with the guidelines.

8. Consultation.

A request for comment was published in the Federal Register on July 17, 2006, (71 FR 40525). No comments were received.

9. Explain any decision to provide payment or gift to respondents.

No payments or gifts of any kind are provided to respondents.

10. Describe any assurance of confidentiality provided to respondents.

No assurance of confidentiality is provided to respondents.

11. Additional justification for any questions of a sensitive nature.

There are no issues of a sensitive nature involved in this information collection.

12. Estimates of reporting and recordkeeping hour and cost burdens of the collection of information.

Every ten years an unmanned tank barge 30 years old or older with a pressure-vessel-type cargo tank carrying cargo at temperatures -67 degrees Fahrenheit (or -55 degrees Celsius) or warmer must submit a proposal for nondestructive testing, then submit the results of that testing. According to the Coast Guard's MISLE database in 2005, there are 79 such vessels. We estimate an average of one-tenth of those 79 (or 7.9) vessels will require nondestructive testing each year. Thus, we expect an average about 8 proposals for nondestructive testing and about 8 results are submitted to the OCMI each year.

A proposal, on average, is expected to have an hour burden of 12 hours; whereas the testing results are expected to have an average burden of 1 hour. The **total hour burden is estimated to be 104 hours per year (rounded)** [104 hours = (1 hour/testing results x 8 testing results) + (12 hours/proposal x 8 proposals)]. See Table 1.

Table 1: Hour Burden to Respondents

| No. of Vessels | Annual Proposals | Hour Burden/ Proposal | Annual Hour Burden for Proposals | Annual Testing Results | Hour Burden/ Results | Annual Hour Burden for Testing | Total Annual Hour Burden |
|----------------|------------------|-----------------------|----------------------------------|------------------------|----------------------|--------------------------------|--------------------------|
| 79 | 8 | 12 | 96 | 8 | 1 | 8 | 104 |

The employee equivalent of a Lt. or Lt. Cmdr. with an average hourly wage of \$86 per hour (*Commandant Instruction 73101.1I*) would complete and submit the proposal or results. Thus, we estimate an average **annual cost of \$8,944** (\$8,944 = \$86/hour x 104 hours). See Table 2.

Table 2: Cost to Respondents

| Total Annual Hour Burden | Cost/Hour | Total Annual Cost |
|--------------------------|-----------|-------------------|
| 104 | \$86 | \$8,944 |

13. Estimates of annualized capital and start-up costs.

There are no annualized capital and start-up costs.

14. Estimates of annualized Federal Government costs.

On average, it is expected to take Coast Guard personnel 1 hour to review a proposal or 1 hour to review the testing results. With an expected 8 proposals and 8 testing results per year, the hour burden to the Coast Guard is estimated to be 16 hours per year. The equivalent of a Lt. or a Lt. Cmdr. would review the proposals or testing results. The average hourly wage of a Lt. or a Lt. Cmdr. is about \$66 (*Commandant Instruction 73101.1I*). Thus, the total cost to the Federal Government is about \$1,056 ($\$1,056 = 16 \text{ hours} \times \$66/\text{hour}$).

15. Explain the reasons for the change in burden.

The change in burden is a program change due to a change in vessel population, and the increase in rates of wages.

16. For collections of information whose results are planned to be published for statistical use, outline plans for tabulation, statistical analysis and publication.

There is no plan to use statistical analysis or to publish this information.

17. Approval to not display expiration date.

There are no forms associated with this collection.

18. Explain each exception to the certification statement.

There are no exceptions to the certification statement.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

This information collection does not employ statistical methods.