

**Supporting Statement
for
Vapor Control Systems for Facilities and Tank Vessels
[w/ changes per USCG-1999-5150; RIN 1625-AB37]**

A. Justification.

1) Circumstances that make the collection of information necessary.

To comply with various Federal and State environmental quality statutes and regulations imposed by agencies other than the Coast Guard, many tank vessels and facilities involved in loading or unloading cargo from those vessels use vapor control systems (VCSs) to limit hydrocarbon emissions during tank vessel loading or unloading. The Coast Guard itself does not require any vessel or facility to use a VCS, but it regulates VCS safety, under the authority of 33 U.S.C. 1225 and 46 U.S.C. 3703, as delegated to the Coast Guard by the Secretary of Homeland Security in Department of Homeland Security Delegation No. 0170.1. Coast Guard VCS regulations promote the safety of life and property of facilities and marine vessels. The regulations, first issued in 1990 and compiled in 33 CFR part 154 and 46 CFR part 39, provide standards to protect facilities from fire and explosion, and to protect vessels from fire, explosion, over/under-pressurization, and overfilling. VCSs require approval, either directly from the Coast Guard or using the services of third-party certifying entities that have been recognized (“accepted”) by the Coast Guard for that purpose.

The current USCG regulations reflect the uses to which VCSs were put in 1990 and the technology and operating practices available at that time. Uses have expanded, in part in response to newer Federal and State environmental regulations imposed by agencies other than the Coast Guard, and technology and operating practices have improved, in the ensuing decades. Currently, to approve VCSs that are used in newer applications or that incorporate newer technology or operating practices, the Coast Guard must use a time-consuming special procedure to determine that such a VCS provides a level of safety that is at least equivalent to the level provided by the 1990 regulations. The USCG rulemaking project numbered USCG-1999-5150 updates to the 1990 regulations, so that such a VCS may be approved by demonstrating compliance with updated regulations and without needing a special exemption or equivalency determination. This eliminates some regulatory uncertainty for vessel and facility owners and operators seeking VCS approval, and will expedite the approval process.

The new regulations:

- Reflect the expanded number and scope of Federal and State regulations for VCSs since 1990;
- Reflect advances in VCS technology and operational practices since 1990, particularly in vapor-balancing operations, pigging operations, and multi-breasted tandem barge-loading operations;
- Incorporate the policy guidance and reflect regulatory exemptions and equivalency determinations that the Coast Guard has provided or granted since 1990;
- Provide new regulations for cargoes and operations, such as tank barge cleaning, that have become subject to Federal or State regulatory expansion since 1990;

- Provide for periodic operational reviews (PORs) to ensure that VCSs are properly maintained and operated after they are certified;
- Provide an alternate test program for analyzers and pressure sensors, in addition to existing 24-hour pre-transfer/cleaning instrument testing requirements, to provide greater regulatory flexibility;
- Require certifying entities (CEs) to be operated by currently licensed professional engineers, to ensure that certification is conducted by properly qualified professionals, and clarify the role of the certifying entity in VCS design, installation, and hazard reviews;
- Remove 33 CFR part 154, Appendix B, which provides specifications for flame arresters, and requires flame arresters to meet third-party standards, because of apparent lack of public demand for these devices;
- Attempt to achieve greater clarity through the use of tabular presentation;
- Update industry standards that are incorporated by reference into Coast Guard regulatory requirements;
- Phase in requirements for existing VCSs in order to moderate the economic impact of new requirements for those VCSs; and
- Make conforming changes and nonsubstantive changes intended to improve regulatory clarity or align with current Federal regulatory style guidance._

This information collection supports the following strategic goals:

Department of Homeland Security

- Prevention
- Protection

Coast Guard

- Maritime Safety
- Protection of Natural Resources

Prevention Policy & Response Policy Directorates (CG-5P & 5R)

- 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.

The collection of information requirements will be used by the Coast Guard. The purpose of the information is (1) recording compliance actions, (2) documenting safety procedures (3) conveying training information and (4) labeling equipment to assure safe operations.

Table 1: COI Requirements for VCSs: Subject and Affected Population, CFR, and Number of Respondents

| Item | Subject and Affected Population | CFR | Respondents |
|------|--|----------------------------------|--|
| a. | Maintenance of records by VCS facilities. --Each facility operator for the life of the VCS. | 33 CFR 2020 (formerly 154.740) | 12 facilities will have VCS certified. |
| b. | Submission of plans, calculations, specifications and other related data. --Each owner/operator of facility applying for VCS approval. | 33 CFR 2020 (formerly 154.804) | Same as a. |
| c. | Application for acceptance as a certifying entity. --Each potential certifying entity. | 33 CFR (formerly 154.806) | 1 new certifying entity expected. |
| d. | Submission of VCS designs for an U.S.- and foreign-flag tank vessel. --Each owner or operator of a new tank vessel vapor control system. | 46 CFR 39.1013 formerly 39.10-13 | 2 tank vessels will install new VCSs. |
| e. | Creation and Retention of Records – Each facility operator | 33 CFR 154.740 ¹ | All VCS owners |
| f. | Review facility ops manual --Each facility operator | 33 154.2020 | 280 facilities |
| g. | Certifications – pigging --Each facility operator who pigs | 154.2020 | 3 facilities |
| h. | Application for pigging approval – Any facility that wants to pig | 154.2020 | 3 facilities |
| i. | Application for cargo line clearing (other than pigging) – facilities | 2104(b) | An interested facility |
| j. | VBS – approval request --Each facility operator with VBS | 33 154.2110 | 16 facilities |
| k. | VBS –compressor/blower application --Each facility operator with VBS and compressor/blower | 33 154.2110 | 3 facilities |
| l. | Failure analysis --Each facility operator who pigs | 33 154.2104 | 3 facilities |
| m. | Training materials for pigging--Each facility operator who pigs | 33 154.2150 | 3 facilities |
| n. | Submittal of plans, calculations, specifications and other related information. – facilities for recertifications | 154.2022 | 14 facilities |
| o. | Recertifications ---Each facility operator | 154.2022 | 14 facilities |
| p. | Submittal of plans, calculations, specifications and other related information. – facilities for POR | 154.2020 | 60 facilities |
| q. | Periodic ops review ---Each facility operator | 154.2020 | 60facilities |
| r. | Periodic Ops review letter --Each facility operator | 33 154.2020 | 60 facilities |
| s. | Relabeling hoses --Each facility operator | multiple | 280 facilities |
| t. | Tank Vessel Certification (addl material) --Each tank barge owner or operator with VCS needing modification | 46 39.1013 | 2 TB owner/operators |
| u. | Submittal of plans, calculations, specifications and other related information. (TBCF – certifications) | 154.2020 | 15 TBCFs |
| v. | Certifications (TBCFs) | 154.2020 | 15 TBCFs |
| w. | Create operations manual --Each TBCF operator | 33 CFR 154.2250 | 15 TBCFs |
| x. | Submittal of plans, calculations, specifications and other related information. – TBCFs for recertification | 154.2022 | 3TBCFs |
| y. | Recertifications --Each TBCF facility operator | 154.2022 | 1 TBCF |
| z. | Submittal of plans, calculations, specifications and other related information. – TBCFs for POR | 154.2020 | 3 TBCFs |

¹ Each facility operator shall maintain at the facility and make available for examination by the COTP: (a) a copy of the letter of intent for the facility; (b) the name of each person designated as a person in charge of transfer operations at the facility and certification that each person in charge has completed the training requirements of § 154.710 of this part; (c) the date and result of the most recent test or examination of each item tested or examined under § 156.170 of this chapter; (d) the hose information required by § 154.500 (e) and (g) except that marked on the hose; (e) the record of all examinations of the facility by the COTP within the last 3 years; (f) the Declaration of Inspection required by § 156.150(f) of this chapter; (g) a record of all repairs made within the last three years involving any component of the facility's vapor control system required by subpart E of this part; (h) a record of all automatic shut downs of the facility's vapor control system within the last 3 years; and (i) plans, calculations, and specifications of the facility's vapor control system certified under § 154.804 of this part. (j) if they are not marked as such, documentation that the portable radio devices in use at the facility under § 154.560 of this part are intrinsically safe.

| | | | |
|-----|---|----------|----------|
| aa. | Periodic ops review --Each TBCF facility operator | 154.2020 | 3 TBCFs |
| bb. | Relabeling hoses --Each TBCF operator | multiple | 15 TBCFs |

Coast Guard-approved certifying entities use plans and technical information for vapor control systems to determine if a facility's or tank vessel's vapor control system is designed in accordance with the applicable regulations. The plans and information submitted are those normally developed by a facility or tank vessel in designing a vapor control system. While compliance with most standards can be determined by examining a facility or tank vessel after completion of the vapor control system, it is much more efficient and cost effective to the public and to the facility to review the plans prior to construction. Frequency of submittals is on occasion. Submittals are made once prior to construction of a system and then before any alteration of the system.

It is estimated that every year 14 new facilities will have vapor control systems certified and need to submit plans. The rule adds new requirements for certification (for TBCFs), re-certifications for TBCFs and facilities, and periodic operational reviews for TBCFs and facilities. In addition, the proposal would issue requirements on relabeling hoses. TBCFs would have to develop operating manuals. There are approximately 15 TBCFs and a total of 280 facilities owning 299 VCS that would be impacted. As well, for facilities, other requirements apply. For facilities who want to perform pigging (a form of cargo line clearing), they must have a certification and failure analysis and prepare training materials for employees.

Coast Guard information in the Marine Information for Safety and Law Enforcement (MISLE) provides data on submission of vapor control system designs for U.S.- and foreign-flagged tank vessels. This analysis assumes that two tank vessels would install new vapor control systems annually. In addition, under the proposed rule (1999-5150), the Coast Guard estimates that two tank vessel owner/operators would need to make modifications; the final rule calls for additional paperwork to be submitted.

Retention of plans and certifying letter provides evidence to the Captain of the Port that the facility's or tank vessel's vapor control system meets the applicable regulations. Captain of the Port personnel compare the installed system with the certified plans when questions arise. Without retention of the certified plans and certifying letter, Captain of the Port personnel have no way of verifying the compliance of the system.

Organizations or persons that desire acceptance as certifying entities must submit applications containing their qualifications to the Coast Guard. USCG reviews the qualifications of the applicants, and authorizes those with the necessary qualifications to be certifying entities. The submittal of applications is necessary in order for the Coast Guard to retain control over the qualifications of certifying entities. It is estimated that there will be one application to become a certifying entity each year.

3) Consideration of the use of improved information technology.

The information required is particular and unique to each facility, tank barge cleaning facility, tank vessel, or certifying entity. The information is a one-time or on-occasion preparation and/or submittals. Submittals for facilities and vessels generally take the form of plans, training

manuals or operating manuals. The information may be submitted by mail, fax or electronically via e-mail to the Coast Guard.

The Coast Guard Marine Safety Center (MSC) accepts information/plans via electronic submittal. For information on submitting information go to— <https://homeport.uscg.mil/msc> > Contact Us > Mail Address, Telephone Contacts, and E-Commerce Info. Information may also be submitted to the CG Officer in Charge, Marine Inspection (OCMI) at the local Sector Office. Contact info for CG OCMI's can be found at— <http://www.uscg.mil/top/units/>.

USCG estimates that approximately 50% of the reporting and recordkeeping requirements can be done electronically. At this time, USCG estimates that approximately 15% of the responses are collected electronically.

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

The Coast Guard monitors State and local regulatory activity in this field. To date, USCG has identified no equivalent State or local programs that require equivalent information. No other Federal agencies have similar or equivalent regulatory requirements.

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

There are only a few small entities that own or operate applicable facilities. Moreover, small entities usually have fewer facilities and vessels and simpler vapor control systems. This results in a lesser burden. It may be easier for small entities to describe their qualifications when asking to be accepted as a certifying entity. No particular format is specified for either plan submittal or application to become a certifying entity.

6) Consequences to the Federal program if collection were conducted less frequently.

If companies did not submit plans and information for vapor control systems for certification, the Coast Guard would not have the means to ensure that such systems met the applicable regulations for design and safety. This would pose a threat to public safety and the environment. Regulations mandate that companies submit plans once before construction; they only mandate that companies submit plans after construction if alterations are made to the system. Companies could not submit plans less frequently than current regulations mandate.

Without requiring certifying entities who want to be accepted by the Coast Guard to submit an application, USCG would be unable to ensure that companies had the necessary qualifications to properly review and certify plans for vapor control systems. This would allow the possibility of unqualified personnel reviewing plans. This, in turn, would also allow the possibility of plans being certified that do not meet the applicable requirements. Such plans would pose a threat to the safety and security to public and the facility.

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

This information collection is conducted in manner consistent with the guidelines in 5 CFR 1320.5(d)(2). With one exception, this information collection is consistent with the guidelines in 5 CFR 1320.6. The exception is the requirement of recordkeeping beyond three years. The certified plans and certifying letter must be retained for the life of the vapor control system. This information is needed to demonstrate the acceptability of the system, and is particularly pertinent with new personnel that are not familiar with the system's history. It is also needed to make sure that repairs to the system do not alter the system from what was previously found to be in compliance.

8) Consultation.

The Coast Guard published a Notice of Proposed Rulemaking (NPRM) entitled "Marine Vapor Control Systems" [USCG-1999-5150] in October 2011. The rulemaking proposed to revise the existing safety regulations for facility and vessel vapor control systems (VCSs). The proposed changes, and now the final rule, would make VCS requirements more compatible with new Federal and State environmental requirements, regulate industry advancements in VCS technology, and codify the standards for the design and operation of a VCS at a tank barge cleaning facility. These changes increase the safety of operations by regulating the design, installation, and use of VCSs, but do not require anyone to install or use VCSs. The public was afforded the opportunity to comment on the NPRM when it was published. As a result of the public comment period for the proposed rule, USCG made changes to the final rule. The Final Rule was published on July 16, 2013, 78 FR 42596.

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

There is no offer of monetary or material value for this information collection.

10) Describe any assurance of confidentiality provided to respondents.

There are no assurances of confidentiality provided to the respondents for this information collection.

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

There are no questions of sensitive language.

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

USCG maintains a database of facilities with VCS. That information was used to derive information that follows in this section. In addition, various previous OMB approved collections of information were used to estimate burden hours; these included 1625-0022, 1625-0101, 1625-0097, 1625-0041 and 1625-0057.

The new final rule for Marine Vapor Control Systems requires additional information to be submitted under certain circumstances and would expand applicability of existing standard to new organizations.

In addition to developing the recordkeeping burden, USCG researched wage rates for various positions. These positions and wage rates are presented in the table which follows.

Table 2: Labor Categories and Wage Rates – Regulated Public

| Labor Category | Loaded Hourly Wage | Source ² |
|-------------------------------------|--------------------|---|
| Administrative Assistant | \$21.20 | 43-6014 Secretaries, Except Legal, Medical, and Executive |
| Engineering Technician | \$31.03 | 17-3025 Environmental Engineering Technicians |
| Engineer (General) | \$51.99 | 17-2112 Industrial Engineers |
| Chemical Engineer | \$62.69 | 17-2041 Chemical Engineers |
| Lead Engineer (Engineering Manager) | \$81.38 | 11-9041 Engineering Managers |
| Mariner Crew Worker | \$25.20 | 53-5011 Sailors and Marine Oilers |
| Maintenance Worker | \$26.71 | 49-9043 Maintenance Workers, Machinery |
| Marine Manager–Engineering TPO | \$81.12 | 541380 Testing Laboratories (General and Operations Manager) |
| Operations Manager | \$84.76 | 11-3051 Industrial Production Managers (Oil and Gas Extraction) |
| Person in Charge | \$46.72 | 53- 5021 Captains, Mates, and Pilots of Water Vessels |
| Supervisory Engineer – Eng. TPO | \$57.62 | 541380 Testing Laboratories (all other managers, 11-9199) |

To calculate the burden, USCG reviewed the population of facilities with VCS. Previously, USCG had calculated burden estimates based on 65 facilities. The number of facilities which have been certified has increased over the years. The reader should note that facilities with VCS infrequently are built but the certification of existing facilities continues. For this reason, USCG has updated its estimates for facilities with VCS. USCG estimates that there are 280 facilities with VCS.

For the current or existing regulations, USCG estimates that

- The annual number of respondents is 662.
- The annual number of responses is 716.
- The annual hour burden is 2,789 hours.
- The annual cost burden is \$334,680.

The final rule adjusts the burden for the existing requirements. The estimate of the burden is based upon the Coast Guard's experience with the certification of existing facilities.

The total adjusted burden for the existing requirements is 1,882 hours. For the existing burden,

² These data were derived from Bureau of Labor Statistics, Occupational Employment Statistics, Occupational Employment and Wages, May 2010. This table lists the respective page which was used. The reader may review the source data at <http://www.bls.gov/oes/>. (<http://www.bls.gov/oes/current/oes535021.htm>, <http://www.bls.gov/oes/current/oes436014.htm>, <http://www.bls.gov/oes/current/oes499043.htm>). USCG accessed the information on January 10, 2012.

the cost is estimated to be \$328,320.³

The final rule amends the existing information collection and adds new provisions. This final rule will (1) require certifications, re-certifications and periodic operational reviews under conditions noted in the rulemaking; (2) necessitate approval requests for VBS under conditions noted in the final rule; (3) require the creation and editing of operations manual, (4) necessitate approval requests for various operations including pigging and VCS connections as described in the rulemaking, and (5) necessitate documentation for training.

These counts are anticipated to decrease substantially in subsequent years because many tasks such as certifications and VBS approval requests are one time only actions that would accrue in the first year of the final rule's enactment. In addition, the final rule expands applicability of the standards. TBCFs would become covered by the regulations. There are approximately 15 TBCFs.

The population of tank barges has been declining. USCG data indicate that there are now 216 U.S. flagged tank barge owners. Previous estimates were that there were 310 tank barge owners. The table which follows presents the estimated number of reporting entities.

Table 3: Reporting Entities for the Final Rule

| Reporting Entity - Group | Count |
|---|---------|
| Facilities with VCS | 280 |
| Certifying Entities | 24 |
| Tank Barge Cleaning Facilities | 15 |
| U.S.-flagged Tank Barge Owners | 216 |
| Owners of 338 Foreign-flagged Tank Barges | Unknown |
| Total | 535 |

For the final rule's total burden, USCG estimates that

- The annual number of respondents is 535.
- The annual number of responses is 1,470.
- The annual hour burden is 9,923 hours.⁴
- The annual cost burden is \$1,408,148.⁵

The table which follows presents a summary of the collection of information requirements. Readers may consult the appendix for a detailed description of these tasks.

Table 4: Summary of Collection of Information Requirements for Facilities or Tank Vessels with a VCS

| CFR | Related Task | Annual Burden | Cost per Requirement |
|-----|--------------|---------------|----------------------|
|-----|--------------|---------------|----------------------|

³ Bureau of Labor Statistics, Occupational Employment and Wages, May 2009: 53- 5021 Captains, Mates, and Pilots of Water Vessels <http://www.bls.gov/oes/current/oes535021.htm> as accessed on November 17, 2010.

⁴ This figure is rounded to the nearest one. Total hours include 8,041.16 hours of new requirements plus 1,882 hours of adjusted existing burden hours (2,789 hours of currently approved existing burden adjusted to 1,882 hours adjusted existing burden). The net increase in burden as a result of the final rule is 7,134 hours (rounded) per year.

⁵ Total cost burden include \$1,079,828 of new requirements plus \$328,320 of adjusted existing cost burden. The net increase in cost burden as a result of the final rule is \$1,408,148per year.

| | | (Hours) | |
|--|--|---------|-----------|
| Existing ICR activities (as approved in 2011) 292 2723.75 ⁶ | | 2,789 | \$334,680 |
| Final Rule's Changes with Existing Burden Recalculation | | | |
| Existing ICR activities (updated) ⁷ | | 1,882 | \$328,320 |
| Initial Implementation Actions Burden | | | |
| 33 154.2020 | Certifications ⁸ | 734.25 | \$236,058 |
| 33 154.2104 | Failure Analysis | 153 | \$8,191 |
| 33 154.2110 | VBS | 873.25 | \$70,297 |
| 33 154.2150 | Training | 24.27 | \$1,850 |
| 33 154.2020 | Operations Manual (due to final rule's changes) | 2974 | \$238,758 |
| Multiple | Relabeling ⁹ | 870.38 | \$33,618 |
| 46 39.1013 | Tank Vessel Certification (add'l material) | 24.00 | \$1,746 |
| 156.170 | Alternative Test Program (facilities) | 0 | \$0 |
| 156.2250 | Alternative Test Program Application ¹⁰ (TBCFs) | 0 | \$0 |
| 46 39.5001 | Multi-breasted loading application | 0 | \$0 |
| 33 154.2111 | Approval request - FVC | 0 | \$0 |
| 154.2104(b) | Application for cargo line clearance system (other than pigging) | 0 | \$0 |
| 154.2000 | Foreign Tank Vessel Certification (Assembly Documents) | 0 | \$0 |
| 154.2111 | Approval Request – Marine VCS to a Facility's VCS | 0 | \$0 |
| 154.2111 | Approval Request for VCS Connections | 0 | \$0 |
| 154.2000 | Approval Request – Alkylene Oxide | 0 | \$0 |
| 154.2250 | Alternative Test Program Application ¹¹ (TBs) | 0 | \$0 |
| 154.2000 | Order ASTM standard (F1273) | 0 | \$0 |
| 154.2000 | Order ASTM standard (F1122) | 0 | \$0 |
| Subtotal – Initial Implementation Actions Burden | | 5653.15 | \$590,518 |
| Subsequent Actions Burden | | | |
| 33 154.2020 | Future Certifications (TBCFs) ¹² | 9.88 | \$3,254 |
| 33 154.2022 | Re-certifications | 334.88 | \$99,961 |
| 33 154.2020 | Periodic Operational Review | 1,134 | \$361,654 |
| 33 154.2020 | Future Operations Manual (TBCFs) | 21.25 | \$1,688 |
| 154.2250 | General Requirements for Inspections and Tests | 888 | \$22,753 |
| 154.2000 | Approval Request - Marine VCS to a Facility's VCS | 0 | \$0 |

⁶ The burden formerly was calculated at 2,789 hours for 716 responses. This is based on 12 facilities having VCS certified and 42 facilities modifying existing VCS (34.75 hours each); 1 certifying entities applying for acceptance at 2 hours each; and 607 tank vessels installing a new VCS at 1.5 hours each.

⁷ 33 CFR 2020 (formerly 154.740), 33 CFR 2020 (formerly 154.804) ; 33 CFR (formerly 154.806) ; 46 CFR 39.1013 (formerly 39.10-13)

⁸ This includes the cost and burden for the facility to apply for USCG approval for pigging (154.2104(b)); a certification is required for pigging.

⁹ 154.2101, 154.2102, 39.2001, 39.5000, 39.2009, 39.6001, 39.6003.

¹⁰ The final rule amends the existing regulation and would amend the requirement for the approval process. The final rule changes the approval authority from the COTP to the Commandant. USCG has not calculated a burden estimate for the provision because of (1) the alternative methods approval process is a reissuance of the existing regulation but includes a change of the deciding official (2) these provisions are expected to have limited applicability in the future. An approval request is estimated to take 7.75 hours.

¹¹ The final rule requires several actions related to tests and inspections. The section also would establish a procedure for TBCFs to apply for an alternative testing program. That program would have to be approved by the Commandant. USCG has not estimated a burden for this provision since it is not anticipated to be requested frequently if at all. The final rule is based on existing voluntary standards which were developed based on industry input for that reason, USCG believes few TBCFs would need an alternative testing program.

¹² There would be prep work for the certification and the actual certification.

| | | | |
|---|---|----------|-------------|
| 154.21111 | Approval Request for VCS Connections ¹³ 154.2111 | 0 | \$0 |
| 154.2000 | Approval Request - Alkylene Oxide | 0 | \$0 |
| 154.2000 | Multi-breasted Loading Application | 0 | \$0 |
| 154.2000 | Foreign Tank Vessel Certification (Assembly Documents) | 0 | \$0 |
| Subtotal – Subsequent Actions Burden | | 2,388.01 | \$489,310 |
| Total for Final Rule (Initial and Subsequent) | | 8,041.16 | \$1,079,828 |
| Grand Total Requested ¹⁴ | | 9,923.16 | \$1,408,148 |

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.

The Federal burden covered by this supporting statement is borne mainly by the USCG Office of Environmental Standards. The office is responsible for the review and processing of VCS documentation including the approval recommendation of various applications. USCG has also included an estimate for burden for the Commandant (or his designee) to actually approve the requests.

For the existing burden, USCG had estimated the review of CE applications and the review of tank vessel applications took approximately 3 hours, at \$72 per hour, for a Coast Guard officer to review an application from a person or organization wishing to be a certifying entity or from a tank vessel to have its VCS approved. The labor wage is the equivalent of O-3 Coast Guard personnel per “Coast Guard Reimbursable Standard Rates.”¹⁵ In addition, the applications will require review and processing from an engineering manager, Commandant designee, and an administrative assistant. For the final rule’s burden, USCG revised this estimate to be 7.25 hours to such a review.¹⁶

It is expected that the Coast Guard will conduct two reviews annually for tank vessels. With the final rule, USCG would review applications for approval; these approvals would be for: VBS,

¹³ The final rule requires that a facility that wants to connect a facility vapor line, which collects vapor from other plant processing areas that are not related to tank vessel operations, to a marine VCS, must receive approval in writing from the Commandant. USCG has not computed a burden for this provision. There have been few exemption requests in the past; USCG has recorded only three such exemptions in the last 20 years. This pattern is not expected to increase in the future. With the expected few, if any, instances in which such an approval request would be filed when the final rule becomes effective, USCG did not calculate into the total burden estimate this provision. An approval request is estimated to take 7.75 hours.

¹⁴ This figure is the difference between the existing inventory (2,789) and quantity summed of the recalculated existing using the latest population figures (1,882) and the burden from the final rule’s new requirements for the initial and subsequent periods (8,063.78). The calculation is as follows: (5,653.15 + 2,388.01) + 1,882 = 9,923.16. Subtracting 2,789 hours of the existing inventory results in a net increase of 7,134.16 hours (rounded).

¹⁵ The Memorandum of the USCG Commandant entitled “Coast Guard Reimbursable Standard Rates” is used to estimate USCG wage rates. The memorandum is dated February 28, 2011 and is numbered COMDTINST 7310.1M. Enclosure 2 lists the relevant data. The memorandum may be found on www.uscg.mil/directives/ci/7000-7999/CI_7310_1M.PDF. This document is known as Commandant Instruction M.

¹⁶ [3 hours * (1 senior engineer * \$82.24/hour + 1 engineering manager * \$98.67/hour) + 0.5 hour Commandant’s designee * \$129/hour + 0.75 hour administrative support time * \$56/hour]

VBS blower/compressors, pigging, cargo line clearing other than pigging, mutli-breasted loading and other topics. The table which follows presents the estimated costs of labor.

Table 5: Labor Categories and Wage Rates **Labor Categories and Wage Rates – U.S. Government**

| Labor Category | Unloaded Hourly Wage | Loaded Hourly Wage ¹⁷ | Source |
|-------------------------------|----------------------|----------------------------------|---|
| Administrative Assistant | \$34.00 | \$56 | Commandant Instruction M (GS-11 in-government rate) ¹⁸ |
| Marine Inspector | \$42.60 | \$79 | Commandant Instruction M (W-4, in-government rate) |
| Marine Engineer ¹⁹ | \$49.94 | \$77 | Commandant Instruction M (GS-13 in-government rate) |
| Engineering Manager | \$54.65 | \$90 | Commandant Instruction M (GS-14 in-government rate) |
| Chief, Marine Inspections | \$44.76 | \$83 | Commandant Instruction M (O-4, in-government rate) |
| Captain of the Port (COTP) | \$44.76 | \$83 | Commandant Instruction M (O-4, in-government rate) |
| Commandant (or designee) | \$69.56 | \$129 | Commandant Instruction M(O-10, in-government rate) |

The burden and cost are as follows:

Table 6: Collection of Information Requirements for Federal Government

| Item | CFR | Number of Respondents | Number of Responses | Burden per Response (Hours) | Annual Burden (Hours) | Cost per Requirement [†] |
|-----------------|--|-----------------------|---------------------|-----------------------------|-----------------------|-----------------------------------|
| Existing Burden | | | | | | |
| a. | Review an application to be a certifying entity 154.2010 | 1 | 1 | 7.35 ²⁰ | 7.35 | \$632 |
| b. | Review a VCS application from a tank vessel. ²¹ | 2 | 2 | 3 | 6 | \$432 |

¹⁷ The load factor for uniformed positions was based on an analysis performed by USCG of compensation and benefits of USCG enlisted and commissioned personnel based on data found in <http://militarypay.defense.gov/Pay/paytables/2011%20Paytable.pdf> and *Commandant Instruction M*.

¹⁸ The Memorandum of the USCG Commandant entitled “Coast Guard Reimbursable Standard Rates” is used to estimate USCG wage rates. The memorandum is dated February 28, 2011 and is numbered COMDTINST 7310.1M. Enclosure 2 lists the relevant data. The memorandum may be found on www.uscg.mil/directives/ci/7000-7999/CI_7310_1M.PDF. This document is known as *Commandant Instruction M*.

¹⁹ The load factor for Federal workers (excluding USCG uniformed employees) is calculated specifically for Public Administration, State and Local Government occupations, Full-time, Private Industry (Series ID: CMU301920000000D, CMU301920000000P, 2010, 2nd Quarter. Total cost of compensation per hour worked: \$37.82, of which \$23.30 is wages, resulting in a load factor of 1.6232 (\$37.82/\$23.30). USCG rounded this factor to 1.62 (rounded to the nearest hundredth). (Source: <http://www.bls.gov/ncs/ect/data.htm> as accessed on November 8, 2010).

²⁰ USCG recalculated this burden using the following: (3 hours * (1 senior engineer + 1 engineering manager)) + (0.5 hour Commandant’s designee) + (0.75 hour administrative labor). In addition, the burden for mailing the decision is estimated by (0.1 hour administrative labor + \$5.75/postage). Unless stated otherwise, this calculation was used for the remainder of this table.

²¹ The task formerly was calculated at 3 hours per occurrence for an O-3 USCG officer. The population of tank barge owner/operators has declined over the years. As of the end of CY 2010, there were approximately 216 U.S.-flagged tank barge owner/operators. The provision applies to all tank vessels; however, only two new VCS approvals for them are expected annually.

| | | | | | | |
|--|---|----|----|------|--------|----------|
| c. | Review Documentation 33 CFR 154.740 ²² | 0 | 0 | 7.25 | 0 | \$0 |
| Subtotal Existing Burden | | | | | 13.35 | \$1,064 |
| Initial Implementation Burden due to Final Rule | | | | | | |
| d. | 154.310 Review & Approve Operations Manual (TBCFs) ²³ | 15 | 15 | 7.25 | 108.75 | \$9,113 |
| e. | 154.2020 Review and Approve Applications (pigging) ²⁴ | 3 | 3 | 7.35 | 22.05 | \$1,823 |
| f. | 154.2104(b) Review and Approve Application for cargo line clearance system (other than pigging) ²⁵ | 0 | 0 | 7.35 | 0 | \$0 |
| g. | 154.2110 VBS Approval | 17 | 17 | 7.35 | 124.95 | \$10,328 |
| h. | 154.2110 VBS Blower/Compressor Approval | 3 | 3 | 7.35 | 22.05 | \$1,823 |
| i. | 154.2250 Application - Alternative Test Program TBCFs ²⁶ | 0 | 0 | 7.35 | 0 | \$0 |
| j. | 39.5000 Approval re: Multi-Breasted Loading ²⁷ | 0 | 0 | 7.35 | 0 | \$0 |
| k. | 154.2111 Approval Request for VCS Connections ²⁸ | 0 | 0 | 7.35 | 0 | \$0 |
| Subtotal for Initial Implementation Burden | | | | | 277.8 | \$23,087 |
| l. | Subsequent TBCF Review & Approve Operations Manual ²⁹ | 1 | 1 | 7.25 | 1.81 | \$152 |
| Subtotal - Final Rule (Initial Implementation, Subsequent Years) | | | | | 279.61 | \$23,239 |
| Total (Existing and Final Rule) Burden (rounded) | | | | | 292.96 | \$24,303 |

²² USCG has not calculated a burden for this provision since less than 10 such occurrences are anticipated annually. Under the existing rules, each facility operator shall maintain at the facility and make available for examination by the COTP: (a) a copy of the letter of intent for the facility; (b) the name of each person designated as a person in charge of transfer operations at the facility and certification that each person in charge has completed the training requirements of § 154.710 of this part; (c) the date and result of the most recent test or examination of each item tested or examined under § 156.170 of this chapter; (d) the hose information required by § 154.500 (e) and (g) except that marked on the hose; (e) the record of all examinations of the facility by the COTP within the last 3 years; (f) the Declaration of Inspection required by § 156.150(f) of this chapter; (g) a record of all repairs made within the last three years involving any component of the facility's vapor control system required by subpart E of this part; (h) a record of all automatic shut downs of the facility's vapor control system within the last 3 years; and (i) plans, calculations, and specifications of the facility's vapor control system certified under § 154.804 of this part. (j) if they are not marked as such, documentation that the portable radio devices in use at the facility under § 154.560 of this part are intrinsically safe. These information would be reviewed onsite by USCG personnel.

²³ The manual is reviewed onsite by USCG personnel which would approve it then. It would not be mailed.

²⁴ In order to begin pigging, a regulated entity would perform a certification, training with written training products and training certification as well as failure analysis as a result of the approval of the pigging approval request. The Coast Guard would review the pigging approval request. That task is captured in this table.

²⁵ USCG expects fewer than 9 such applications in any given year.

²⁶ The proposal would establish a procedure for TBCFs to apply for an alternative testing program. That program would have to be approved by the Commandant. USCG has not calculated a burden for the approval of an alternative testing program for TBCFs since the proposal is codifying existing voluntary procedures.

²⁷ USCG has not computed a cost nor a burden for this provision because the current system of exemption requests has covered most, if not all, potential applicants. An approval request is estimated to take 7.25 hours

²⁸ The proposal would require that a facility that wants to connect a facility vapor line, which collects vapor from other plant processing areas that are not related to tank vessel operations, to a marine VCS, must receive approval in writing from the Commandant. USCG has not computed a burden for this provision. There have been few exemption requests in the past; USCG has recorded only three such exemptions in the last 20 years. This pattern is not expected to increase in the future. With the expected few, if any, instances in which such an approval request would be filed when the final rule becomes effective, USCG did not calculate into the total burden estimate this provision. An approval request is estimated to take 7.25 hours.

²⁹ 1 entity * 1/4 * [(3 hours * (1 senior engr + 1 engineering mgr)) + 0.5 hour COTP + 0.75 hour 1 administrative staff]. This event is expected to occur once every four years; as such, USCG has included a smoothing factor (1/4) to this calculation.

15) Explain the reasons for the change in burden.

The change (i.e., increase) in burden is both a PROGRAM CHANGE and an ADJUSTMENT. The current OMB inventory is 2,789 hours. The requested burden is 9,923 hours. The total change in burden is +7,134 hours.

A PROGRAM CHANGE results from the “Marine Vapor Control Systems” final rule. The Coast Guard is revising the existing safety regulations for facility and vessel vapor control systems (VCSs). The final rule’s changes make VCS requirements more compatible with new Federal and State environmental requirements, regulate industry advancements in VCS technology, and codify the standards for the design and operation of a VCS at a tank barge cleaning facility. These changes increase the safety of operations by regulating the design, installation, and use of VCSs, but would not require anyone to install or use VCSs. The total Program Change to the burden is +8,041 hours.

The ADJUSTMENT results from a change in the population of VCS-related facilities and tank vessels. This population change adjusts burden estimates for the current collection of information. The Adjustment for this rulemaking is – 907 hours.

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

This information collection will not be published for statistical purposes.

17) Explain the reasons for seeking not to display the expiration date for OMB approval of the information of collection.

The Coast Guard will display the expiration date for OMB approval of this information collection.

18) Explain each exception to the certification statement.

The Coast Guard does not request an exception to the certification of this information collection.

B. Collection of Information Employing Statistical Methods.

This information collection does not employ statistical methods.

Appendix

The following table provides details on USCG's calculations of information collection activities for facilities and tank vessels as summarized in Table 3.

Table A1
Collection of Information Requirements for Facilities or Tank Vessels with a Vapor Control System: Subject and Affected Population, CFR, and Number of Respondents

| CFR | Number of Respondents | Number of Responses | Burden per Response (Hours) | Annual Burden (Hours) | Cost per Requirement |
|---|---|---------------------|-----------------------------|-----------------------|-------------------------|
| Existing ICR activities (updated) ³⁰ | | | | | |
| 33 CFR 154.2020 | Maintain records for certification (12 facilities) ³¹ | 12 | 0.25 | 3 | \$360 ³² |
| 33 CFR 154.2020 | Perform certifications (12 facilities) | 12 | 6.5 ³³ | 78 | \$9,360 |
| 33 CFR 154.2020 | Perform certifications (12 facilities) | 12 | 33 ³⁴ | 396 | \$150,000 ³⁵ |
| 46 CFR 39.1013 | Submit VCS designs for new VCS (2 tank vessels) ³⁶ | 2 | 1.50 | 3 | \$360 |
| 33 CFR 154.2010 ³⁷ | Apply to be a CE (1 new certifying entity). | 1 | 2.00 ³⁸ | 2 | \$240 |
| 33 CFR 154.740 | Create and retain records – each facility operator ³⁹ | 280 | 5.00 | 1,400 | \$168,000 |
| Subtotal for Existing ICR activities | | | | 1,882 | \$328,320 |
| Certifications ⁴⁰ | | | | | |
| 33 CFR 154.2020 | Prepare for Certifications for pigging – a facility that pigg ⁴¹ | 3 | 6.5 | 19.5 | \$1,544 |

³⁰ 33 CFR 154.2020 formerly was 154.804. 33 CFR 154.2020 formerly was numbered as 154.740. 46 CFR 39.1013 was formerly 39.10-13.

³¹ USCG data demonstrates that there are approximately 234 facilities but only 12 are expected to need a certification each year. With the final rule, the former 154.740 ICR requirements for resubmittal for recertification would be removed and replaced with a recertification requirement.

³² For the existing burden, \$120 per hour is used for the labor rate. This is the equivalent of an O-5 Coast Guard personnel out of government per the Memorandum of the USCG Commandant entitled "Coast Guard Reimbursable Standard Rates." The memorandum is dated February 28, 2011 and is numbered COMDTINST 7310.1M. Enclosure (2) lists the relevant data. The memorandum may be found on www.uscg.mil/directives/ci/7000-7999/CI_7310_1M.PDF and is known as Commandant Instruction M.

³³ USCG formerly estimated 1.5 hours to assemble/transmit the plans to prepare for the certification. Based on comments received during the proposal's comment period, this estimate has been revised.

³⁴ 33 hours for review and preparation of certification and certification letter by certifying entity.

³⁵ 12 facilities * \$12,500 fee which is approximately \$378.42/hour contracted engineering team's labor rate * 33 hours

³⁶ The requirement applies to all tank vessels but only 2 tank vessels are expected to annually install new VCS.

³⁷ formerly 154.806

³⁸ One hour to draft and one hour to assemble and send the application.

³⁹ Each facility operator must maintain at the facility and make available for examination by the COTP: (a) a copy of the letter of intent for the facility; (b) the name of each person designated as a person in charge of transfer operations at the facility and certification that each person in charge has completed the training requirements of § 154.710 of this part; (c) the date and result of the most recent test or examination of each item tested or examined under § 156.170 of this chapter; (d) the hose information required by § 154.500 (e) and (g) except that marked on the hose; (e) the record of all examinations of the facility by the COTP within the last 3 years; (f) the Declaration of Inspection required by § 156.150(f) of this chapter; (g) a record of all repairs made within the last three years involving any component of the facility's vapor control system required by subpart E of this part; (h) a record of all automatic shut downs of the facility's vapor control system within the last 3 years; and (i) plans, calculations, and specifications of the facility's vapor control system certified under § 154.804 of this part. (j) if they are not marked as such, documentation that the portable radio devices in use at the facility under § 154.560 of this part are intrinsically safe.

| | | | | | |
|---|--|------|-----------------|---------------------|-----------|
| 33 CFR 154.2020 | Perform Certifications (pigging)--a facility that pigs (via CE) ⁴² | 3 | 33 | 99 | \$37,500 |
| 33 CFR 154.2020 | Apply for USCG approval for pigging ⁴³ | 3 | 7.75 | 23.25 | \$1,792 |
| 33 CFR 154.2031 | Prepare for Certifications – TBCFs ⁴⁴ | 15 | 6.5 | 97.5 | \$7,722 |
| 33 CFR 154.2031 | Perform Certifications ---Each TBCF operator (via CE) ⁴⁵ | 15 | 33 | 495 | \$187,500 |
| 33 CFR 154.2031 | Prepare for Future Certifications – TBCFs ⁴⁶ | 0.25 | 6.5 | 1.625 | \$129 |
| 33 CFR 154.2031 | Perform Future Certifications – TBCF (via CE) ⁴⁷ | 0.25 | 33 | 8.25 | \$3,125 |
| Certifications (Initial Implementation) | | | | 734.25 | \$236,058 |
| Certifications (Future Annual) | | | | 9.875 | \$3,254 |
| Subtotal for Certifications | | | | 744.125 | \$239,312 |
| Failure Analysis | | | | | |
| 33 CFR 154.2104 | Do failure analysis --each facility operator who pigs ⁴⁸ | 3 | 51 | 153 | \$8,191 |
| VBS | | | | | |
| 33 154.2110 | Make VBS approval request --each VBS facility operator ⁴⁹ | 17 | 50 | 850 | \$68,506 |
| 33 154.2110 | Make a VBS compressor/blower application --each facility operator with VBS and using compressor/blower ⁵⁰ | 3 | 7.75 | 23.25 | \$1,792 |
| Subtotal for VBS | | | | 873.25 | \$70,297 |
| Training | | | | | |
| 33 CFR 154.2150 | Develop training materials --each operator who pigs ⁵¹ | 3 | 7.75 | 23.25 | \$1,792 |
| 33 CFR 154.2150 | Training documentation for pigging training ⁵² | 3 | 0.22 | 0.66 | \$32 |
| 33 CFR 154.2150 | Training documentation for pigging training (future) ⁵³ | 3 | 0.13 | 0.36 | \$26 |
| Subtotal for Training | | | | 24.27 | \$1,850 |
| Operations Manual | | | | | |
| 33 CFR 154.2020 | Review facility ops manual --each facility operator; review facility ops manual—234 facilities ⁵⁴ | 234 | 6 ⁵⁵ | 1,404 | \$116,630 |
| 33 CFR 154.2020 | Edit facility ops manual --each facility operator; update facility ops manual—59 facilities ⁵⁶ | 59 | 5 | 295 | \$20,855 |
| 33 CFR 154.2250 | Create operations manual --each TBCF operator ⁵⁷ | 15 | 85 | 1,275 | \$101,273 |
| 33 CFR 154.2250 | Create operations manual --future TBCF operator ⁵⁸ | 0.25 | 85 | 21.25 ⁵⁹ | \$1,688 |

⁴⁰ Certifications for facilities are existing requirements under (154.804 which will become 33 CFR 2020) and are noted in the Existing ICR activities category.

⁴¹ 3 facilities * [6 hours * 1 lead engr + 0.25 hour * 1 ops mgr + 0.25 hour * 1 admin staff]

⁴² 3 facilities * \$12,500 fee which is approximately \$378.42/hour contracted engineering team's labor rate * 33 hours

⁴³ 3 facilities * [3.5 hours * (1 lead engr + 1 ops mgr) + (0.75 hour * 1 admin staff)]

⁴⁴ 15 TBCFs * [6 hours * 1 lead engineer + 0.25 hour * 1 ops mgr + 0.25 hour * 1 administrative staff]

⁴⁵ 15 TBCFs * \$12,500 fee which is approximately \$378.42/hour contracted engineering team's labor rate * 33 hours

⁴⁶ The burden is multiplied by ¼ to account for an event every four years.

⁴⁷ The burden is multiplied by ¼ to account for an event every four years.

⁴⁸ 3 VCS [(16 hours * (1 safety engineer + 1 design engineer + 1 chemical engineer) + (3 hours * 1 admin. staff)]

⁴⁹ 17 VBS * [(24 hours * (1 lead engr + 1 ops mgr)) + (2 hours* 1 admin staff)]

⁵⁰ 3 VBS * [3.5 hours * (1 lead engr + 1 ops mgr) + (0.75 hour * 1 admin staff)]

⁵¹ The final rule creates new tasks for facility operators who pig (certifications, training materials, failure analyses). These tasks would be one time only events. 3 facilities * [(3.5 hours * (1 lead engr + 1 ops mgr)) + (0.75 hour * 1 admin staff)]

⁵² 3 facilities * [(0.1 hour * 1 lead engr) + (0.12 hour * 1 admin staff)]

⁵³ 3 facilities * [(0.1 hour * 1 lead engr) + (0.03 hour * 1 admin staff)]

⁵⁴ The final rule creates tasks which should occur in the first year of implementation only.

⁵⁵ The final rule necessitates all (234) facilities to review their facility operating manuals and some facilities would need to update their manuals as a result of that review. USCG estimates a total of 6 hours to review manuals and a total of 5 hours to update manuals. Only 59 facilities are expected to update manuals.

⁵⁶ The rule creates tasks which should occur in the first year of implementation only.

⁵⁷ 15 TBCFs * [40 hours * (1 lead engr + 1 ops mgr)+ (5 hours * 1 admin staff)]

| | | | | |
|---|---|----------|------|-----------|
| Operations Manuals (Initial Implementation) | | 2,974 | | \$238,758 |
| Operations Manuals (Future Annual) | | 21.25 | | \$1,688 |
| Subtotal for Operations Manuals | | 2,995.25 | | \$240,446 |
| Re-certifications | | | | |
| 33 CFR 154.2022 | Perform prep work for re-certifications – each facility | 14 | 6.5 | \$7,207 |
| 33 CFR 154.2022 | Do re-certifications ---each facility operator (via CE) ⁶⁰ | 14 | 17 | \$91,000 |
| 33 CFR 154.2022 | Perform prep work for re-certification – each TBCF ⁶¹ | 1 | 6.5 | \$129 |
| 33 CFR 154.2022 | Do re-certifications --each TBCF operator (via CE) | 1 | 17 | \$1,625 |
| Subtotal for Re-certifications | | 334.875 | | \$99,961 |
| Periodic Operational Review | | | | |
| 33 CFR 154.2020 | Perform prep work for POR – each TBCF ⁶² | 3 | 2.5 | \$568 |
| 33 CFR 154.2021 | Have periodic op review --each TBCF operator (via CE) ⁶³ | 3 | 14.5 | \$16,500 |
| 33 CFR 154.2021 | Maintain periodic ops review letter – each TBCF operator | 3 | 1 | \$154 |
| 33 CFR 154.2020 | Perform prep work for POR --each facility operator | 60 | 2.5 | \$11,355 |
| 33 CFR 154.2020 | Have periodic ops review ---each facility (via CE) ⁶⁴ | 60 | 14.5 | \$330,000 |
| 33 CFR 154.2020 | Maintain ops review letter --each facility | 60 | 1 | \$3,077 |
| Subtotal for Periodic Operational Review | | 1,134 | | \$361,654 |
| Relabeling⁶⁵ | | | | |
| Various | Relabeling hoses --each facility operator ⁶⁶ | 299 | 2.5 | \$30,139 |
| various | Labeling --each TBCF facility operator ⁶⁷ | 15 | 2.0 | \$1,312 |
| various | Relabeling and labeling – each TB owner/operator ⁶⁸ | 216 | 0.43 | \$4,815 |
| Subtotal for Relabeling | | 870.38 | | \$36,266 |
| Tank Vessel Certification | | | | |
| 46 CFR 39.1013 | Tank Vessel Certification (addl material) --each tank barge owner or operator with VCS needing modification ⁶⁹ | 2 | 12 | \$1,746 |
| General Requirements for Inspections and Tests | | | | |
| 33 CFR 154.2250 | Test Program (TBCFs) ⁷⁰ | 15 | 59 | \$22,561 |
| 33 CFR 154.2250 | Evaluation of Cargoes – TBCF for polymerizing cargoes ⁷¹ | 1 | 3 | \$192 |

⁵⁸ 1 TBCF * ¼ * [40 hours * (1 lead engr + 1 ops mgr)+ (5 hours * 1 admin staff)] This is expected to occur once every four years.

⁵⁹ The burden is multiplied by ¼ to account for an event (one new TBCF) every four years.

⁶⁰ The cost of this provision is calculated by 14 facilities * \$6,500 fee which is approximately \$378.42/hour contracted engineering team's labor rate * 17 hours.

⁶¹ For TBCFs, re-certifications are expected to occur once every four years.

⁶² Periodic operational reviews would be required within five years of a certification or the last POR. For TBCFs, because they would not have had a certification until the final rule becomes effective, they would not begin to have PORs until the fifth year of the final rule's enactment.

⁶³ The cost of the provision is calculated by 3 TBCFs * \$5,500 fee which is approximately \$378.42/hour contracted engineering team's labor rate * 14.5 hours.

⁶⁴ Cost is calculated y 60 facilities * \$5,500 fee which is approximately \$378.42/hour contracted engineering team's labor rate * 14.5 hours

⁶⁵ 33 CFR 154.2101, 154.2102, 46 CFR 39.2001, 39.2009, 39.6001, 39.6003(b)

⁶⁶ These tasks would be one time only events. (299 VCS * (2 hours * 1 maint. worker + 0.5 hour * 1 ops mgr) There is also a cost for materials (\$5 for paint and paint brushes)

⁶⁷ 15 TBCFs * (1.5 hours * 1 maint. worker + 0.5 hour * 1 ops mgr + \$5) based on 46 CFR 39.6003, 39.6007

⁶⁸ 216 TBs* (0.33 hour * 1 maint. worker + 0.1 hour * 1 ops mgr + \$5 for materials) based on 46 CFR 2001, 5000

⁶⁹ 2 VCS * [(2 hours * 1 admin staff) + 5 hours (1 ops mgr + 1 lead engr)]

⁷⁰ 15 TBCFs (52 hours * employee + 7 hours * lead engineer)

⁷¹ 1 TBCF * 1.5 hours * (1 lead engineer + 1 PIC) The final rule requires that the cargo be evaluated (e.g., the cargo's manifest or other documentation reviewed for polymerizing chemicals) for the potential to polymerize. Most potential cargoes do not possess the potential to polymerize. This evaluation would necessitate the review of the cargo's manifest. Data are not available on the various cargoes that a given TBCF would handle. Potentially polymerizing cargoes are infrequent cargoes at TBCFs but USCG does not have accurate data to

| | | | | | |
|---|--|-----|-----|-------|-------------|
| 33 CFR 156.170 | Alternative Test Program (facilities) ⁷² | N/A | N/A | N/A | N/A |
| 33 CFR 154.2250 | Alternative Test Program Application ⁷³ | N/A | N/A | N/A | N/A |
| Subtotal for General Requirements for Inspections and Tests | | | | 888 | \$22,753 |
| Miscellaneous Other | | | | | |
| 46 CFR 39.5001 | Multi-breasted loading application ⁷⁴ | N/A | N/A | N/A | N/A |
| 33 CFR 154.2111 | Approval request - FVC ⁷⁵ | N/A | N/A | N/A | N/A |
| 33 CFR 154.2104 | Application for cargo line clearance system (other than pigging) ⁷⁶ | N/A | N/A | N/A | N/A |
| 154.2000 | Foreign Tank Vessel Certification (Assembly Documents) ⁷⁷ | N/A | N/A | N/A | N/A |
| 154.2111 | Approval Request - Marine VCS to a Facility's VCS ⁷⁸ | N/A | N/A | N/A | N/A |
| ⁷⁹ 154.2111 | Approval Request for VCS Connections ⁸⁰ | N/A | N/A | N/A | N/A |
| 154.2000 | Approval Request - Alkylene Oxide ⁸¹ | N/A | N/A | N/A | N/A |
| 154.2000 | Order ASTM standard (F 1273) | N/A | N/A | N/A | N/A |
| 154.2000 | Order ASTM standard (F 1122) | N/A | N/A | N/A | N/A |
| Subtotal for Miscellaneous) | | 0 | 0 | 0 | 0 |
| Total for Final Rule | | | | | \$1,082,476 |
| Total for Existing (as noted above) | | | | 1,882 | \$328,320 |

estimate the number of times a TBCF would have to evaluate cargoes since TBCFs do not report this data to USCG. USCG data demonstrates that 35 facilities process polymerizing cargoes; however, it is unknown how often the vessels which handle these cargoes would go to TBCFs for service. This estimate is based on one TBCF spending a collective 3 hours to perform this action in a given year, roughly one event per week lasting about 0.06 hour each. USCG estimates that an engineer would confer with the PIC to evaluate the cargo.

⁷² The final rule amends the existing regulation's approval process. The final rule changes the approval authority from the COTP to the Commandant. USCG has not calculated a burden estimate for the provision because of (1) the alternative methods approval process is a reissuance of the existing regulation but includes a change of the deciding official (2) these provisions are expected to have limited applicability in the future. An approval request is estimated to take 7.75 hours.

⁷³ The final rule requires several actions related to tests and inspections. The section also establishes a procedure for TBCFs to apply for an alternative testing program. That program must be approved by the Commandant. USCG has not estimated a burden for this proposed provision since it is not anticipated to be requested frequently if at all. The rule is based on existing voluntary standards which were developed based on industry input and, for that reason, USCG believes few TBCFs would need an alternative testing program.

⁷⁴ Most, if not all, tank barge owner/operators who would use multi-breasted loading have already gone through the exemption process. USCG has computed no cost, cost savings nor COI burden for the provision. The burden would be (3.5 hours * (1 lead engineer + 1 operations manager) + (0.75 hour * 1 administrative staff) per application

⁷⁵ The rule requires that a facility that wants to connect a facility vapor line, which collects vapor from other plant processing areas that are not related to tank vessel operations, to a marine VCS, must receive approval in writing from the Commandant. Because of the limited applicability of this change, USCG has not calculated a burden for it. One application's burden would be (3.5 hours * (1 lead engineer + 1 operations manager) + (0.75 hour * 1 administrative staff)

⁷⁶ One application's burden would be (3.5 hours * (1 lead engineer + 1 operations manager) + (0.75 hour * 1 administrative staff)

⁷⁷ [(10 hours * (1 lead engineer + 1 ops mgr)) + (0.75 hour * 1 admin staff)]

⁷⁸ [(3.5 hours * (1 lead engineer + 1 ops mgr)) + (0.75 hour * 1 admin. staff)]

⁷⁹ The final rule requires that a facility that wants to connect a facility vapor line, which collects vapor from other plant processing areas that are not related to tank vessel operations, to a marine VCS, must receive approval in writing from the Commandant. USCG has not computed a burden for this provision. There have been few exemption requests in the past; USCG has recorded only three such exemptions in the last 20 years. This pattern is not expected to increase in the future. With the expected few, if any, instances in which such an approval request would be filed when the final rule becomes effective, USCG did not calculate into the total burden estimate this provision. An approval request is estimated to take 7.75 hours.

⁸⁰ [(3.5 hours * (1 lead engineer + 1 ops mgr)) + (0.75 hour * 1 admin staff)]

⁸¹ [(3.5 hours * (1 lead engineer + 1 ops mgr)) + (0.75 hour * 1 admin staff)]

