

**Supporting Statement for
Title 46 CFR Subchapter Q: Lifesaving, Electrical, and Engineering
Equipment, Construction and Materials
& Marine Sanitation Devices (33 CFR 159)**

A. Justification

1. Circumstances that make the collection of information necessary.

The authority to prescribe regulations for lifesaving, electrical, and engineering equipment, construction and materials, and its use on inspected vessels derives from 46 U.S.C. 3306. These regulations are also authorized under 46 U.S.C. 3703 and 4302. Specific Subparts of Subchapter Q are also authorized under 46 U.S.C. 2103, 4103 and 5115, and 33 U.S.C. 1321 (j), and 1903. Title 46 CFR Chapter I Parts 159 through 164 contains the technical standards for approval by the Coast Guard of specific types of safety equipment and materials that are to be installed on vessels subject to Coast Guard jurisdiction. The authority to prescribe regulations for marine sanitation devices is at 33 U.S.C. 1322(b)(1). The regulations are found at 33 CFR Part 159.

a. Approval standards for lifesaving, electrical, and engineering equipment, construction and materials, and marine sanitation devices (MSDs)

The general approval procedures for the equipment and material of Subchapter Q are described in 46 CFR 159. The standards for Coast Guard approval of different equipment and material are contained in 46 CFR Parts 160-164, as described below:

Lifesaving Equipment:	46 CFR Part 160
Electrical Equipment:	46 CFR Part 161
Engineering Equipment:	46 CFR Part 162
Construction:	46 CFR Part 163
Materials:	46 CFR Part 164
MSDs	33 CFR Part 159

The overall authority for the reporting and recordkeeping requirements applicable to all manufacturers of approved equipment, thus making it applicable also to the equipment and material in Subchapter Q, is described in 46 CFR 2.90 and 2.95. In general, safety equipment and material standards are intended to ensure that manufactured equipment meet minimum levels of performance and safety. To show that these have been met, manufacturers are required to submit drawings, specifications, and laboratory test reports before Coast Guard approval is given, as described in the above regulations.

When the Coast Guard approves emergency and safety equipment for use aboard commercial vessels and pleasure craft, the manufacturer is issued a Certificate of Approval. This certificate and all other documents (drawings, test reports, etc.) form the basis for the certificate and must be retained for the period for which the certificate is in effect (usually five years).

Furthermore, the regulations in 46 CFR 160 require liferafts and certain life preservers to be serviced periodically. This servicing must be recorded so that it can be determined later that it was indeed done. Servicing records for lifesaving devices are retained by the servicing organization for use by Coast Guard inspection personnel. These records form the basis of a servicing certificate, a copy of which is retained on the vessel or drilling unit. It serves as evidence that the equipment is in operating condition and that the equipment was serviced in accordance with the applicable regulations by an authorized servicing facility. Reports by liferaft servicing facilities of deficient liferafts and deficient liferaft servicing are used to identify production problems that could affect multiple liferafts in field service, and liferaft servicing facilities requiring closer Coast Guard oversight. Such reports are occasional, only being required when a reportable deficiency is observed.

b. Instructional materials

Manufacturers are required to produce, and vessel operators are required to use, instructional materials for certain lifesaving, fire protection, and engineering equipment. For the equipment cited in Subchapter Q requiring instructional material, the manufacturers are generally required to submit the instructional materials along with the application package to the Coast Guard for approval. Instructional material is necessary because vessel crewmembers must have access to information on the proper operation of lifesaving, fire protection, and emergency equipment. These materials are used during training sessions and during emergencies. Applicable Parts, as can be seen in the Appendix, are 160, 161, 163, and 164.

c. Markings

Subchapter Q requires manufacturers to identify lifesaving, electrical, and engineering equipment and some construction and materials, with the following: manufacturer, model number, capacity, approval number and other information concerning its performance. Additional markings are required in the case of certain equipment, and are outlined in the applicable Subpart for the equipment in question. Generally, vessel operators and Coast Guard inspectors use this information to determine compliance with regulations. Applicable Parts, as can be seen in the Appendix, are: 160, 161, 162, 163, and 164.

d. Records of production tests & laboratory inspections

Subchapter Q regulations also require the manufacturer to conduct and maintain records of production tests for some of the equipment and material. These tests are mainly material tests necessary to ensure that the material being used in the construction of a lifesaving appliance meets the minimum performance requirements with regard to strength, buoyancy, and fire retardancy, as applicable. The manufacturing processes are also inspected regularly by lab inspectors – who issue their own reports to the manufacturer – from independent laboratories certified by the Coast Guard to ensure quality control. Applicable Parts, as can be seen in the Appendix, are: 160, 161, 162, and 164.

e. Independent & Recognized Laboratories

Independent Lab: Some of the production tests described above are required to be done through, or certified by, ‘independent’ laboratories. Thus, before laboratory test reports can be accepted, the laboratory must demonstrate its technical qualifications and independence. The laboratory can satisfy this requirement by submitting the information specified in 46 CFR 159.010-5 to the Coast Guard. This is a reporting requirement that each laboratory has to meet only once and is thus a one-time burden.

Recognized Lab: Certain Subparts in Subchapter Q, Parts 159-164, not only require that the laboratory is Coast Guard approved, but also that it is a ‘recognized laboratory’ listed in the Subpart. At present, there is only one recognized lab.

The Coast Guard established regulations, in 46 CFR 159.010 and in some Subparts of Subchapter Q, for an independent laboratory seeking to become a recognized laboratory for conducting tests and inspections. Only laboratories that enter into a Memorandum of Understanding (MOU) with the Coast Guard may perform the functions of a recognized laboratory. The MOU is a collection of information that is prepared and submitted to the Coast Guard for approval by the laboratory seeking recognition. The MOU specifies the approval functions the laboratory performs for the Coast Guard, and the laboratory’s working arrangements with the Coast Guard. The establishment of the MOU will ensure that all independent laboratories that are recognized by the Coast Guard follow similar procedures. Provisions for ‘round-robin’ testing in the MOU will ensure that various recognized laboratories’ testing similar equipment using similar testing procedures obtain comparable results.

This information collection supports the following strategic goals:

Department of Homeland Security

- Prevention
- Protection

Coast Guard

- Maritime Safety
- Maritime Stewardship

Marine Safety, Security and Stewardship Directorate (CG-5)

- 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.

a. Approval, b. Instructional materials, and c. Markings: Technical plans, drawings, and specifications are submitted to the Coast Guard to obtain approval numbers for a variety of lifesaving and safety equipment. The submitted technical data is then reviewed to determine compliance with the technical requirements contained in specific regulations. The plans and drawings are copies of production drawings utilized by the manufacturer in making the equipment. The required instructional materials and markings are also submitted to the Coast Guard with the overall application for approval.

When Coast Guard approval is issued, a Certificate of Approval is sent to the manufacturer of the equipment. The certificates, plans, specifications, and laboratory test reports used to issue approval are retained by the manufacturer of the approved equipment to identify the specific equipment approved and to permit the production of equipment identical to the equipment samples originally tested. The certificates also specify an expiration date and provide the terms of the approval. Subchapter Q thus requires that these documents be filed and retained by the manufacturer.

d. Records of production tests & laboratory inspection reports: Independent testing laboratories that test the materials and equipment for compliance with the applicable Coast Guard regulations issue reports. The manufacturer is required to retain laboratory or production test reports used by the manufacturer to obtain approval from the Coast Guard.

Production test reports for lifesaving equipment are reviewed either by the independent laboratory or Coast Guard inspectors to determine that production stock of lifesaving appliances will be identical to those originally tested and approved. The lifesaving appliances will be inspected for continuity of attributes, i.e., ability to adequately support the weight of a person in the water or otherwise aid in a person's survival in emergency situations. The purpose of these reports is to enable a comparison between the construction and properties of production lifesaving appliances to the sample devices originally evaluated prior to issuance of Coast Guard approval.

e. Independent and Recognized Labs: Upon being accepted by the Coast Guard, the Independent Laboratories meet the criteria for the reports they themselves issue to be accepted. The information that each laboratory must submit to gain such Coast Guard acceptance or recognition:

- Identifies the laboratory and principal person(s) to contact;
- Verifies the independence of the laboratory from the organizations whose products the laboratory will test;
- Verifies the technical qualifications of the test personnel; and
- Verifies the adequacy of equipment and facilities to conduct the testing for which application is made.

An MOU, in the form of a prepared and signed document, is submitted to the Coast Guard by an independent laboratory seeking Coast Guard 'recognition' to perform certain approval and production tests specified in 46 CFR Subchapter Q. A particular laboratory submits it only once, at the time of initial application for recognition. The MOU is used by the Coast Guard to evaluate the capabilities of the laboratory to perform the functions specified in the relevant regulations, and to document the

responsibilities of the laboratory and of the Coast Guard in relation to equipment testing, inspection, and approval.

3. Consideration of the use of improved information technology.

The Coast Guard is now using the Internet to post equipment approvals, replacing the 'Equipment Lists' paperback books that were published every two years or so in the past. The Coast Guard is also publishing fewer circulars and bulletins, and is using the Internet to provide information to the public and to manufacturers. The following website: <http://www.uscg.mil/hq/cg5/cg5214/> makes easily available a considerable amount of useful information, including a list of approved manufacturers and independent labs.

In addition, the Coast Guard receives more and more approval requests and certificate renewals requests via electronic mail.

We estimate that about 93% of the reporting and recordkeeping requirements can be done electronically. At this time, we estimate that approximately 50% of the responses are collected electronically.

Printed labels and pamphlets are the most reliable methods of dissemination of safety/product information to consumers. Other information technologies are not feasible to meet this intent of the regulations. For example, CD-ROMS or diskettes are only useful to consumers that have access to computers. Allowing the use of CD-ROMS, diskettes, or other improved information technology in lieu of labels and pamphlets excludes a significant part of the intended audience. Additionally, it is preferred that consumers have information "at the point of purchase" to make informed decisions on appropriate equipment to fit their needs, rather reviewing the information after purchase using CD-ROMS or diskettes.

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

There is no duplication, since the information is reported or kept only once for each organization and each item. There are no other Federal Agencies or States with programs dealing with the same equipment and technical requirements. On the contrary, other Federal Agencies have relied on Coast Guard approval as evidence of suitability for the purpose intended when ordering items such as lifesaving equipment.

The information is unique to each piece of equipment or material and organization, and no other information can be used in its place.

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

This information collection does not have an impact on small businesses or other small entities.

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

This information is collected only once for each item manufacturer, testing, and servicing organization. The records that are submitted or retained are the minimum needed to identify the equipment and ensure that it has been tested and serviced properly. There is thus no way to reduce this frequency.

For laboratory classification, where the information is also collected only once, if the information is not collected the Coast Guard would be unable to evaluate the qualifications and procedures of laboratories desiring recognition to perform and/or oversee certain tests of approved equipment on behalf of the Coast Guard.

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).

8. Consultation.

A 60 day Notice was published in the Federal Register to obtain public comment on this collection. (See [USCG-2008-1009], October 14, 2008, 73 FR 60708) The USCG has not received any comments on this information collection.

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 nature.

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

a. Approval Procedures

i) RENEWALS: There are approximately 3,735 manufacturers involved in the production of lifesaving, electrical, emergency equipment, and construction and materials, as seen in Table 1 below. For further details on the applicable CFR sections and requirements, please see Table A in the Appendix. Since a Coast Guard approval is generally valid for five years, we assume that approximately 747 manufacturers ($3,735/5=747$) have to renew their approval annually. The Coast Guard estimates that this process takes about 0.5 hours, as it mainly involves the faxing of a letter requesting approval to Coast Guard Headquarters (CGHQ).

Therefore, the reporting burden hours are = $747 \times 0.5 = 374$ hours.

If we assume someone at a management level (equivalent to GS-13) prepares the submission to the Coast Guard for all equipment, the applicable wage rate is \$73/hour¹. Therefore the total cost is $\$73 \times 374 = \$27,302$.

ii) NEW APPLICATIONS: For manufacturers seeking approval for the first time, the normal procedure is to forward to CGHQ a letter that includes production drawings describing the equipment submitted and independent laboratory reports indicating compliance with the technical requirements of the individual specifications. As the accompanying documents are already available to the manufacturer as part of the manufacturing process, submitting the documents with the letter mainly involves the photocopying of existing documents. Thus, we estimate from past experience that the average time of preparation for a submittal is approximately two hours. For a total of 100 submittals per year by new manufacturers the total burden is 200 hours, at the rate of 2 hours per submittal.

Therefore, the reporting burden hours are = $100 \times 2.0 = 200$ hours.

If we assume someone at a management level (equivalent to GS-13) prepares the submission to the Coast Guard, the applicable wage rate is \$73/hour. Therefore the cost is = $\$73 \times 200 = \$14,600$.

iii) COPIES ON FILE: As part of the approval, manufacturers are required to retain relevant documents, plans, or test reports. The manufacturer usually retains these records as business records. Thus the time involved is minimal, and we estimate that to be approximately 10 minutes (0.17 hours) a year per manufacturer.

Therefore, the recordkeeping burden hours for all 3,735 manufacturers are = $3,735 \times 0.17 = 635$ hours.

¹ All wage rates for calculations in this document are obtained from Enclosure (2) to COMDTINST 7310.1(series).

If we assume someone at the clerical level (equivalent to GS-7) files the copies, then the applicable wage rate is \$38/hour. Thus the cost is = 635 X \$38 = \$24,130.

TABLE 1: APPROVAL STANDARDS²

Approved Standards: Equipment Type	Approved Manufacturers
Part 159.015 Marine Sanitation Devices	
Marine Sanitation Device	431
Total – Marine Sanitation Devices	431
Part 160- Lifesaving Equipment	
Automatic Disengaging Device (SOLAS)	3
Buoyant Apparatus for Merchant Vessels	60
Davit for Merchant Vessels	8
Embarkation Ladder	1
Embarkation Ladder (SOLAS)	3
Emergency Drinking Water	8
Emergency Fishing Tackle Kit	3
Emergency Provisions for Merchant Vessels	14
Emergency Signaling Mirror	4
Evacuation Slide for Domestic Service	4
First-aid Kit for Inflatable Liferafts	7
Floating Orange Smoke Distress Signal	3
Floating Orange Smoke Signal	6
Hand Orange Smoke Distress Signal	1
Hand Red Flare Distress Signal	5
Hand Red Flare Distress Signal (SOLAS)	4
Hand-held Rocket Propelled Red Parachute Flare	4
Hand-held Rocket-propelled Parachute Red Flare	5
Hatchet (Lifeboat and Liferaft)	1
Hybrid Inflatable Personal Floatation Device	9
Hydraulic Release for Lifesaving Equipment	5
Hydraulic Release Unit (SOLAS)	6
Immersion Suit (SOLAS)	29
Inflatable Life Raft (SOLAS)	111
Inflatable Lifejacket (SOLAS)	5
Inflatable Liferaft	32
Jackknife (with Can Opener)	2
Life Float for Merchant Vessels	16

² The numbers were obtained from the following website, which lists all approved equipment under Subchapter Q: <http://cgmix.uscg.mil/Equipment/> .

Life Raft for Merchant Vessels	1
Lifeboat (SOLAS)	39
Lifeboat Bilge Pump	3
Lifeboat Compass	4
Lifeboat Davit (SOLAS)	70
Lifeboat First Aid Kit	7
Lifeboat for Merchant Vessels	5
Lifeboat Mechanical Disengaging Apparatus	4
Lifeboat Release Mechanism (SOLAS)	28
Lifeboat Sea Anchor	1
Lifeboat Winch (SOLAS)	58
Lifeboat Winch for Merchant Vessels	2
Lifejacket (SOLAS)	11
Lifejacket Light (SOLAS)	17
Liferaft Launching Appliance (SOLAS)	7
Line Throwing Appliance	4
Marine Buoyant Device	1,509
Marine Evacuation System (SOLAS)	5
Orange Flag Distress Signal for Boats	1
Recreational Inflatable Personal Flotation Device	84
Red Aerial Pyrotechnic Flare Distress Signal	6
Rescue Boat (SOLAS)	27
Rigid Liferaft (SOLAS)	1
Ring Lifebuoy (SOLAS)	15
Sea Water Desalter Kit for Merchant Vessels	2
Shoulder Gun Type Line Throwing Appliance	2
Signal Pistol for Red Flare Distress Signals	3
Thermal Protective Aid (SOLAS)	2
Three Minute Orange Smoke Signal (SOLAS)	6
Unicellular Plastic Foam Buoyant Vest	6
Unicellular Plastic Foam Life Preserver	50
Unicellular Plastic Foam Work Vest	34
Unicellular Plastic Life Ring Buoy	53
Unicellular Polyethylene Foam Buoyant Vest	29
Total – Lifesaving Equipment	2,455
Part 161- Electrical Equipment	
Emergency Position Indicating Radio Beacon	23
Fire Protective System	15
Floating Electric Water Light	6
Floating Electric Water Light (SOLAS)	3

Personal Flotation Device Light	23
Position Indicating Light (SOLAS)	8
Total – Electrical Equipment	78
Part 162 - Engineering Equipment	
Carbon Dioxide Type Fire Extinguishing System	8
Certificate of Shipboard Incinerator	32
Combination Fire Hose Nozzle	8
Engineered Halocarbon Fire Ext. System	11
Engineered Inert Fire Extinguishing System	2
Fixed Fire Extinguishing System	64
Foam Type Fire Extinguishing System	15
Liquefied Compressed Gas Safety Relief Valve	8
Oil Pollution Prevention Equipment	149
Oil Water Interface Detector	4
Portable Foam Applicators (SOLAS)	1
Pressure-vacuum Relief Valves for Tank Vessels	23
Water Mist Fire Extinguishing System	13
Water Spray Type Fire Extinguishing System	1
Total – Engineering Equipment	339
Part 163 - Construction	
Pilot Ladder	5
Total - Construction	5
Part 164 - Materials	
Bedding Components	21
Bulkhead Panels	2
Bulkhead Panels (IMO)	20
Deck Assembly (IMO)	2
Draperies, Curtains & Other Suspended Textiles	3
Fiber-reinforced Plastic Grating	8
Fiber-reinforced Plastic Piping	30
Fire Dampers	7
Fire Door control Systems (IMO)	1
Fire Doors (IMO)	55
Fire-resisting Division for High Speed Craft	4
Floor Coverings (IMO)	23
Interior Finish	20
Interior Finish (IMO)	103
Non-combustible Material	4
Non-combustible Material (IMO)	45
Penetration Seals (Fire Stops)	21

Primary Deck Coverings (IMO)	13
Retroreflective Material	7
Structural Ceiling (IMO)	5
Structural Insulation	4
Structural Insulation (IMO)	16
Upholstered Furniture	2
Windows (IMO)	11
Total - Materials	427
Grand Total	3,735

iv) **SERVICING:** The regulations require certain vessels, mobile offshore drilling units, and fishing vessels to carry liferafts and lifesaving equipment in accordance with their Certificate of Inspection. There are also servicing requirements for this equipment. The burden therefore is the requirement for servicing facilities to retain records of the servicing and to inform the Coast Guard of discrepancies and problems.

Unlike liferafts, the optional, automatically inflatable life jackets addressed in 46 CFR 160.176-19(e) are of a special nature and are not used by the general public or conventional commercial vessels. To date only one vessel, a hydrofoil, was equipped with these life jackets. It is expected that fewer than ten vessels will ever carry these special devices, and there is currently only one (1) servicing facility for these inflatable lifejackets. Both liferafts and automatically inflatable life jackets are serviced by the same servicing organizations and there are 189 of them nationwide, including manufacturers. The total number of servicing facilities therefore is 190.

Table 1A below summarizes the CFR sections that have the servicing requirements, as well as the numbers of servicing facilities and burden hours applicable to this collection.

The Coast Guard estimates that the recordkeeping requirement for each liferaft servicing is approximately 2 hours annually, and that the reporting of problems to the Coast Guard involves about an hour annually on average, as it is only very occasionally that such problems are reported.

The recordkeeping burden for 190 servicing facilities, therefore, is = $2 \times 190 = 380$ hours.
The reporting burden is = $1 \times 190 = 190$ hours.

If we assume someone at the clerical level (equivalent to GS-7) files the copies, then the applicable wage rate is \$38/hour. Thus the cost for the recordkeeping hours is $380 \times \$38 = \$14,440$.

If someone at a management level (equivalent to GS-13) prepares the report on servicing and equipment problems, the applicable wage rate is \$73/hour. Therefore the cost is = $\$73 \times 190 = \$13,870$.

TABLE 1A: Servicing

Equipment Type	46 CFR cite	Number of Servicing Facilities	Burden Hours	
			Reporting	Record-keeping
Buoyant Apparatus for Merchant Vessels	160.010-3 (c)	189 approx. in total, and most service all three equipment types.	190 hours	380 hours
Inflatable Liferrafts for Domestic Service	160.051-7			
Inflatable Liferrafts (SOLAS)	160.151-35(a)			
Inflatable Lifejackets	160.176-19	1		
TOTAL		190	190 hours	380 hours

SUMMARY OF APPROVAL PROCEDURES:

Number of Respondents = 100 (new manufacturers) + 3,735 (all existing manufacturers) + 190 (servicing facilities) = 4,025.

Number of Responses = 747 + 100 + 3735 + 190 = 4,772.

Reporting Hours = 374 + 200 + 190 = 764 hours.

Recordkeeping Hours = 635 + 380 = 1,015 hours.

Therefore, Annual Hour Burden (Reporting + Recordkeeping) = 764 + 1,015 = 1,779 hours.

Annual Cost = \$27,302 + \$14,600 + \$24,130 + \$14,440 + \$13,870 = \$94,342.

b. Instructional Materials

i) RENEWALS: The annual reporting burden is the estimated burden to the manufacturers to get the training or instructional material approved by the Coast Guard and to provide the material with the equipment. There are approximately 1,430 manufacturers with this burden as seen in Table 2 below. For further details on the applicable CFR sections and requirements, please see Table B in the Appendix. Since most approvals are valid for five years, annually the number of manufacturers revising the instructional materials is = $1,430/5 = 286$. Generally, it takes approximately 2 hours to make revisions to the material. Further, we estimate that on average, each manufacturer produces about 200 units. The time required for each instructional material to be included with the equipment is the few minutes it takes for a manufacturer to print and collate the information and to pack it with the equipment. Thus on average, we assume 0.1 hours (6 minutes) per piece of equipment for packing the instructional material with the equipment.

Therefore the reporting burden hours for approved manufacturers are = $(286 \times 2) + (286 \times 200 \times 0.1) = 6,292$ hours.

If someone at the management level (equivalent to GS-13) makes the revisions, the applicable wage rate is \$73/hour. We also assume someone at the clerical level (equivalent to GS-5) packs the material with the equipment. Thus the applicable wage rate here is \$33/hour.

The total cost is therefore $(572 \times \$73) + (5,720 \times \$33) = \$41,756 + \$188,760 = \$230,516$.

ii) NEW: We estimate that there will be approximately 20 new applications each year, with requirements for instructional materials. The time involved for this is more, as the preparation of new material takes longer. We assume 8 hours per manufacturer, on average. Assuming 0.10 minutes for packing the material with the equipment, for 200 units per manufacturer, the total time involved is = $20 \times 200 \times 0.1 = 400$ hours.

Therefore the reporting burden hours for new manufacturers annually are: $(20 \times 8) + (20 \times 200 \times 0.1) = 160 + 400 = 560$ hours.

Again, we assume someone of management level (equivalent to GS-13) prepares the material, so the applicable wage rate is \$73/hour. We also assume someone at the clerical level (equivalent to GS-5) packs the material with the equipment. Thus the applicable wage rate here is \$33/hour.

The total cost is therefore $(20 \times 8 \times \$73) + (400 \times \$33) = \$11,680 + \$13,200 = \$24,880$.

SUMMARY OF INSTRUCTIONAL MATERIAL:

Number of Respondents = $286 + 20 = 306$.

Number of Responses = $286 + 20 = 306$.

Annual (Reporting) Burden Hours = $6,292 + 560 = 6,852$ hours.

Annual Cost = $\$230,516 + \$24,880 = \$255,396$.

TABLE 2: INSTRUCTIONAL MATERIALS

Instructional Materials: Equipment Type	Approved Manufacturers
Part 159.015 Marine Sanitation Devices	
Marine Sanitation Devices	431
Part 160-Lifesaving Equipment	
Buoyant Apparatus for Merchant Vessels	60
Emergency Provisions for Merchant Vessels	14
Floating Orange Smoke Signal	6
Hand Red Flare Distress Signal (SOLAS)	4
Line-Throwing Appliances	4
Specifications for a Buoy, Life Ring, Unicellular Plastic	53
Inflatable Liferafts	32
Kits, First-Aid, for Inflatable Liferafts	7
Fishing Tackle Kits, Emergency, for Merchant Vessels	3
Inflatable Recreational PFDs	84
Hybrid Inflatable PFDs	9
Inflatable Liferafts	32
Inflatable Liferafts (SOLAS)	111
Immersion Suits.	29
Life Float for Merchant Vessels	16
Life Raft for Merchant Vessels	1
Lifeboat (SOLAS)	39
Lifeboat Compass	4
Lifeboat Davit (SOLAS)	70
Lifeboat Release Mechanism (SOLAS)	28
Lifeboat Winch (SOLAS)	58
Liferaft Launching Appliance (SOLAS)	7
Sea Water Desalter Kit for Merchant Vessels	2
Thermal Protective Aids	6
Three Minute Orange Smoke Signal (SOLAS)	6
Part 161-Electrical Equipment	
Emergency Position Indicating Radio Beacon	23

Instructional Materials: Equipment Type	Approved Manufacturers
Fire Protective System	15
Personal Flotation Device Lights	23
Position Indicating Light (SOLAS)	8
Part 162-Engineering Equipment	
Carbon Dioxide Type Fire Extinguishing System	8
Certificate of Shipboard Incinerator	32
Engineered Halocarbon Fire Ext. System	11
Engineered Inert Fire Extinguishing System	2
Fixed Fire Extinguishing System	64
Foam Type Fire Extinguishing System	15
Oil Water Interface Detector	4
Water Mist Fire Extinguishing System	13
Water Spray Type Fire Extinguishing System	1
Part 164-Materials	
Fire Door Control Systems (IMO)	1
Fire Doors (IMO)	55
Penetration Seals (Fire Stops)	21
Retroreflective Material	7
Windows (IMO)	11
Total	1,430

c. Markings

i) REVISIONS. There are an estimated 2,777 manufacturers of equipment for merchant vessels that require markings, as seen in Table 3 below. For further details on the applicable CFR sections and requirements, please see Table C in the Appendix. Since all Coast Guard approved material is valid for five years, we assume that about 1/5 of all approved manufacturers will be revising their markings on equipment every year, which comes to approximately 555 manufacturers annually. On average, manufacturers can each be expected to produce about 200 units per year. The time required for each response is the few minutes it takes for a manufacturer to stencil or stamp the information, on the equipment. In many cases the information is part of a printed label or the process is in some way automated and so the actual time per piece of equipment is negligible. Thus we estimate, on average, a time of 6 minutes (0.10 hour) per item.

The annual reporting burden for approved manufacturers to mark (identify) equipment = $555 \times 200 \times 0.10 = 11,100$ hours.

Assuming someone of clerical level (equivalent to GS-5) does the marking on the equipment, the applicable wage rate is \$33/hour. Thus the total cost involved is = $11,100 \times \$33 = \$366,300$ annually.

ii) NEW: We estimate there are approximately 70 new manufacturers who seek Coast Guard approval who must have their equipment marked. Again, the time involved in marking the equipment is 0.10 hour per item. The 70 manufacturers produce, on average, 200 units.

The annual reporting burden for new manufacturers is: $70 \times 200 \times 0.10 = 1,400$ hours.

Assuming someone of clerical level (equivalent to GS-5) does the marking on the equipment, the applicable wage rate is \$33/hour. Thus the total cost involved is = $1,400 \times \$33 = \$46,200$ annually.

SUMMARY OF MARKINGS:

Number of Respondents = $555 + 70 = 625$.

Number of Responses = $555 + 70 = 625$.

Annual (Reporting) Burden Hours = 11,100 + 1,400 = 12,500 hours.

Annual Cost = \$366,300 + \$46,200 = \$412,500.

TABLE 3: MARKINGS

Markings: Equipment Type	Approved Manufacturers
Part 159.015 Marine Sanitation Devices	
Marine Sanitation Devices	431
Part 160-Lifesaving Equipment	
Automatic Disengaging Device (SOLAS)	3
Bouyant Apparatus for Merchant Vessels	60
Davit for Merchant Vessels	8
Embarkation Ladder	1
Embarkation Ladder (SOLAS)	3
Emergency Drinking Water	8
Emergency Fishing Tackle Kit	3
Emergency Provisions for Merchant Vessels	14
Emergency Signaling Mirror	4
Evacuation Slide for Domestic Service	4
First-aid Kit for Inflatable Liferrafts	7
Floating Orange Smoke Distress Signal	3
Floating Orange Smoke Signal	6
Hand Orange Smoke Distress Signal	1
Hand Red Flare Distress Signal	5
Hand Red Flare Distress Signal (SOLAS)	4
Hand-held Rocket Propelled Red Parachute Flare	4
Hand-held Rocket-propelled Parachute Red Flare	5
Hatchet (Lifeboat and Liferaft)	1
Hydraulic Release for Lifesaving Equipment	5
Hydraulic Release Unit (SOLAS)	6
Inflatable Liferaft	32
Jackknife (with Can Opener)	2
Life Float for Merchant Vessels	16
Life Raft for Merchant Vessels	1
Lifeboat (SOLAS)	39
Lifeboat Bilge Pump	3
Lifeboat Compass	4
Lifeboat Davit (SOLAS)	70
Lifeboat First Aid Kit	7
Lifeboat for Merchant Vessels	5
Lifeboat Mechanical Disengaging Apparatus	4
Lifeboat Release Mechanism (SOLAS)	28
Lifeboat Sea Anchor	1
Lifeboat Winch (SOLAS)	58
Lifeboat Winch for Merchant Vessels	2
Lifejacket (SOLAS)	11
Lifejacket Light (SOLAS)	17

Markings: Equipment Type	Approved Manufacturers
Liferaft Launching Appliance (SOLAS)	7
Marine Buoyant Device	1509
Orange Flag Distress Signal for Boats	1
Red Aerial Pyrotechnic Flare Distress Signal	6
Rescue Boat (SOLAS)	27
Rigid Liferaft (SOLAS)	1
Ring Lifebuoy (SOLAS)	15
Sea Water Desalter Kit for Merchant Vessels	2
Shoulder Gun Type Line Throwing Appliance	2
Signal Pistol for Red Flare Distress Signals	3
Thermal Protective Aid (SOLAS)	2
Three Minute Orange Smoke Signal (SOLAS)	6
Unicellular Plastic Foam Buoyant Vest	6
Unicellular Plastic Foam Life Preserver	50
Unicellular Plastic Foam Work Vest	34
Unicellular Plastic Life Ring Buoy	53
Unicellular Polyethylene Foam Buoyant Vest	29
Part 161-Electrical Equipment	
Emergency Position Indicating Radio Beacon	23
Fire Protective System	15
Floating Electric Water Light	6
Floating Electric Water Light (SOLAS)	3
Personal Flotation Device Light	23
Position Indicating Light (SOLAS)	8
Part 163-Construction	
Pilot Ladder	5
Part 164-Materials	
Bedding Components	21
Bulkhead panels	2
Bulkhead panels (IMO)	20
Deck Assembly (IMO)	2
Draperies, Curtains & Other Suspended Textiles	3
Fiber-reinforced Plastic Grating	8
Fiber-reinforced Plastic Piping	30
Fire Dampers	7
Fire Door control Systems (IMO)	1
Fire Doors (IMO)	55
Fire-resisting Division for High Speed Craft	4
Floor Coverings (IMO)	23
Penetration Seals (Fire Stops)	21
Primary Deck Coverings (IMO)	13
Total	2,777

d. Records of Production Tests & Lab Inspections

i) RECORDS OF PRODUCTION TESTS: Approximately 3,159 of Subchapter Q equipment manufacturers are also required to keep records of their production tests, as seen in Table 4 below. For

further details on the applicable CFR sections and requirements, please see Table D in the Appendix. While each manufacturer is expected to conduct quality control tests in accordance with the sampling plan specified in the individual specifications, the burden placed on the manufacturers is the retention of these records. In many cases, independent laboratories in lieu of Coast Guard inspectors will monitor this. It is expected that each manufacturer of critical lifesaving appliances, such as life vests, lifeboats, etc., have an already established quality control program. The regulation, outlined in 46 CFR 159.007 and in the applicable Subparts, merely provides for uniformity of quality control measures among various manufacturers. Because of the number of tests that are done yearly, we estimate the burden for retaining the records, on average, to be approximately two (2) hours annually per manufacturer.

Therefore the total recordkeeping burden = $3,159 \times 2 \text{ hours} = 6,318 \text{ hours}$.

Assuming the recordkeeping and filing of records is handled by someone at the clerical level (equivalent to GS-7) with a wage rate of \$38/hour, the cost involved is = $6,318 \times \$38 = \$240,084$.

ii) LAB INSPECTIONS OF PRODUCTION TESTING AND INSPECTION REPORTS: Since the production testing (quality control procedures) is based on a statistical sampling plan, the cost to the respondents due to laboratory supervision will vary with production. According to industry comments the time involved in laboratory monitoring varies greatly depending on the product being manufactured. Since actual figures are not available to the Coast Guard, we estimate that a laboratory inspector at each manufacturing facility spends an average of 2 hours a month (i.e. 24 hours a year) to monitor quality control procedures, which is the burden to manufacturers as they pay for the services of the lab inspector. His/her work involves the monitoring and the issuance of a report to the manufacturer. More and more manufacturers are using lab inspectors now, and so we make the reasonable assumption that all 3,159 of the manufacturers required to maintain production test records also undergo lab inspections.

Therefore the reporting burden for manufacturers is = $3,159 \times 2 \times 12 = 75,816 \text{ hours}$.

Assuming a rate of \$38/hr for the laboratory inspector (GS-7 level), the annual cost to manufacturers (respondents) is = $75,816 \times \$38 = \$2,881,008$.

SUMMARY OF RECORDS OF PRODUCTION TESTS & LAB INSPECTIONS:

Number of Respondents = 3,159.

Number of Responses = $3,159 + 3,159 = 6,318$.

Recordkeeping Burden Hours = 6,318 hours.

Reporting Burden Hours = 75,816 hours.

Therefore, Annual Burden Hours (Recordkeeping + Reporting) = $6,318 + 75,816 = 82,134 \text{ hours}$.

Annual Cost = $\$240,084 + \$2,881,008 = \$3,121,092$.

TABLE 4: RECORDS OF PRODUCTION TESTING

Records of Production Testing: Equipment Type	Approved Manufacturers
Part 159.015 Marine Sanitation Devices	
Marine Sanitation Devices	431
Part 160-Lifesaving Equipment	
Automatic Disengaging Device (SOLAS)	3
Buoyant Apparatus for Merchant Vessels	60
Davit for Merchant Vessels	8
Embarkation Ladder	1
Embarkation Ladder (SOLAS)	3

Records of Production Testing: Equipment Type	Approved Manufacturers
Emergency Drinking Water	8
Emergency Signaling Mirror	4
Evacuation Slide for Domestic Service	4
Floating Orange Smoke Distress Signal	3
Hand Orange Smoke Distress Signal	1
Hand Red Flare Distress Signal	5
Hand-held Rocket Propelled Red Parachute Flare	4
Hand-held Rocket-propelled Parachute Red Flare	5
Hybrid Inflatable Personal Floatation Device	9
Immersion Suit (SOLAS)	29
Inflatable Life Raft (SOLAS)	10
Inflatable Liferaft	32
Life Float for Merchant Vessels	16
Life Raft for Merchant Vessels	1
Lifeboat (SOLAS)	39
Lifeboat Davit (SOLAS)	70
Lifeboat Winch (SOLAS)	58
Lifeboat Winch for Merchant Vessels	2
Lifejacket Light (SOLAS)	17
Liferaft Launching Appliance (SOLAS)	7
Line Throwing Appliance	4
Marine Buoyant Device	1,509
Recreational Inflatable Personal Flotation Device	84
Red Aerial Pyrotechnic Flare Distress Signal	6
Shoulder Gun Type Line Throwing Appliance	2
Signal Pistol for Red Flare Distress Signals	3
Unicellular Plastic Foam Buoyant Vest	6
Unicellular Plastic Foam Life Preserver	50
Unicellular Polyethylene Foam Buoyant Vest	29
Part 16-Electrical Equipment	
Emergency Position Indicating Radio Beacon	23
Fire Protective System	15
Position Indicating Light (SOLAS)	8
Part 162-Engineering Equipment	
Certificate of Shipboard Incinerator	32
Engineered Halocarbon Fire Ext. System	11
Engineered Inert Fire Extinguishing System	2
Fixed Fire Extinguishing System	64
Foam Type Fire Extinguishing System	15
Liquefied Compressed Gas Safety Relief Valve	8
Oil Pollution Prevention Equipment	149
Oil Water Interface Detector	4
Portable Foam Applicators (SOLAS)	1
Pressure-vacuum Relief Valves for Tank Vessels	23
Water Mist Fire Extinguishing System	13

Records of Production Testing: Equipment Type	Approved Manufacturers
Part 164-Materials	
Bulkhead panels	2
Fire Dampers	7
Fire Door Control Systems (IMO)	1
Fire Doors (IMO)	55
Interior Finish	20
Interior Finish (IMO)	103
Noncombustible Material	4
Noncombustible Material (IMO)	45
Structural Insulation	4
Structural Insulation (IMO)	16
Windows (IMO)	11
Total	3,159

e. Independent & Recognized Labs.

i) INDEPENDENT LAB: The burden placed on independent laboratories seeking Coast Guard acceptance is the time they need to prepare the necessary documentation to demonstrate their independence and technical competence. For details on the applicable CFR sections and requirements, please see Table E in the Appendix. The Coast Guard receives approximately two applications a year for Independent Laboratory certification of the approved equipment. Each respondent is expected to spend four (4) hours in preparing a submittal to the Coast Guard. The submittal needs to be made only once for each laboratory.

The total annual burden for Independent Lab submissions is therefore estimated to be eight (8) hours for the approved equipment. Since we assume someone of management level (equivalent to GS-13) puts together the application to the Coast Guard, the applicable wage rate is \$73/hour for most equipment. Thus the total cost is = \$73 X 8 = \$584/year.

ii) RECOGNIZED LAB: The Coast Guard estimates that there will be no more than one applicant for independent laboratory recognition every five years, therefore no more than one MOU submission every five years is anticipated. Based on the resources required to draft the single existing MOU, drafting of an MOU is estimated to require no more than two person-weeks of professional staff time, for a total annual burden to the public of 80 hours.

Therefore the 5-year burden is 80 hours, and the annual burden = $80/5 = 16$ hours.

Thus the annual cost, assuming again that someone of management level (equivalent to GS-13) puts together the MOU, is = $\$73 \times 16 = \$1,168$ annually.

SUMMARY OF INDEPENDENT & RECOGNIZED LABS:

Number of Respondents = $2 + 0.2 = 2.2 =$ approximately 2

Number of Responses = $2 + 0.2 = 2.2 =$ approximately 2

Annual (Reporting) Burden Hours = $8 + 16 = 24$ hours.

Annual Cost = $\$584 + \$1,168 = \$1,752$.

Table 5: Summary of Collections of Information: Respondents, Responses, Burden & Cost

Section	1. Respondents	2. Responses	3. Reporting (Hours)	4. Record-keeping (Hours)	5. Annual Burden (=3 + 4) (Hours)	6. Annual Cost
a) Approval Procedures	4,025	4,772	764	1,015	1,779	\$94,342
b) Instructional Materials	306 (Subset of a))	306	6,852	0	6,852	\$255,396
c) Markings	625 (Subset of a))	625	12,500	0	12,500	\$412,500
d) Records of Production Tests	3,159 (Subset of a))	6,318	75,816	6,318	82,134	\$3,121,092
e) Independent and Recognized Labs.	2	2	24	0	24	\$1,752
Total	4,027	12,023	95,956	7,333	103,121	\$3,885,082

As can be seen from Table 5, the total number of respondents is 4,027 and the total number of responses is 12,023. The number of annual burden hours for this collection of information is 103,121 hours and the total annual cost is \$3,885,082.

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

There are no capital, start-up or maintenance costs associated with this information collection.

14. Estimates of annualized Federal Government costs.

Federal Government costs consist of processing applications for product approvals, processing independent laboratory acceptances, and some limited monitoring of the lifesaving device manufacturers' production tests.

i. APPROVAL RECORDS REVIEW: The cost to the government in administering the equipment and materials approvals consists of reviewing the applicants' requests, plans, blue prints, test reports, and other materials such as product catalogs and specifications. After review of all relevant material, a certificate of approval or a letter citing areas of noncompliance is sent to each applicant. The average time of processing is estimated at four hours per submittal.

The reviewing official for most equipment is usually a civilian (GS-13) or a military officer with an average hourly rate of \$73. As there are 100 new applications a year to review, the total annual cost to the Federal Government is = $100 \times 4 \times \$73 = \$29,200$.

ii. REVIEW OF INDEPENDENT LABORATORY APPLICATIONS: The cost to the government is the value of the time of the person reviewing each application for laboratory recognition. It takes approximately 2 hours to review the application for most equipment and 0.5 hours to draft a written reply indicating acceptance/rejection. About two (2) laboratory applications are expected each year for most approved. If the person reviewing the equipment applications is of GS-13 rank, the cost involved is = $2.5 \times 2 \times \$73 = \365 .

iii. LIFESAVING DEVICE SERVICING RECORDS³: The cost to the government is the cost of keeping copies of the servicing reports at the local Coast Guard Marine Safety/Inspection Office. It is assumed that these tasks consume 0.05 hours of clerical time for each report and Coast Guard offices process about 2,200 reports annually. These tasks are carried out by civilian clerical (GS-4, wage rate of \$29/hour) personnel or enlisted military personnel. The cost therefore is $0.05 \times \$29 \times 2,200 = \$3,190$.

iv. PRODUCTION TESTS AND QUALITY CONTROL PROCEDURES MONITORING⁴: At the present time, most production tests are monitored by independent laboratories in lieu of Coast Guard personnel at no cost to the government. There are, however, some government officers still involved in monitoring the quality control procedures of a few manufacturers – primarily manufacturers of davits, winches and lifeboats. We estimate that the total amount of time involved is the equivalent of one officer working full time. The rank equivalent for an officer conducting such monitoring is O-3, and involves a wage rate of \$67/hour. Since approximately 2,000 hours equal one man-year, the cost is $= \$67 \times 2000 = \$134,000$.

v. REVIEW OF AN MOU FOR A RECOGNIZED LAB⁵: Coast Guard engineering and legal staff will review an MOU for sufficiency before submitting it to the Commandant or an authorized representative for signature. Based on the resources required to process the single existing MOU, this review process is expected to require one week, or 40 hours, of professional staff time. Since there is approximately one application every five years for a recognized lab, we assume the time involved is 8 hours annually ($=40/5$). Again assuming someone of GS-13 rank review the MOU, the applicable wage rate is \$73/hour. The annual cost to the Federal Government therefore is $= 8 \times \$73 = \584 .

Thus the **total cost to the Federal Government** for review of approval records, independent laboratory applications, lifesaving device servicing records, production monitoring and MOU submissions is:

$$\mathbf{\$29,200 + \$365 + \$3,190 + \$134,000 + \$584 = \$167,339.}$$

15. Explain the reasons for the change in burden.

The change (i.e., increase) in hour burden is an ADJUSTMENT and is strictly due to an increase in the estimated number of equipment/material manufacturers. The Coast Guard now uses a relatively new data base--MISLE--for estimating these data and this allows us to more accurately determine the number of manufacturers. The methodology for estimating hour burden per response per year remains unchanged.

The change in the number of responses is strictly due to an increase in the estimated number of equipment/material manufacturers. The methodology for estimating responses per year remains unchanged.

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.

USCG will display the expiration date for OMB approval of this information collection.

³ There are no costs to government for this item.

⁴ See footnote No. 8.

⁵ See footnote No. 8.

18. Explain each exception to the certification statement.

USCG 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.