Approved Standards	Reg cite	Approved Equipment	Instructional Materials	Markings	Records of Product Testing
Equipment Type		2018	2018	2018	2018
Summary					
Part 159- Marine Sanitation Devices - Total		347	347	347	0
Part 160- Lifesaving Equipment - Total		1,490	1,490	1,516	1,102
Part 161- Electrical Equipment - Total		119	119	119	73
Part 162 - Engineering Equipment - Total		290	290	290	231
Part 163 - Construction - Total		5	5	5	0
Part 164 - Materials - Total		353	353	353	221
Part 165 - Navigation (NVIC 8-01 change 3) - Total		90	90	90	89
GRAND TOTAL		2,694	2,694	2,720	1,716
Details					
Part 159- Marine Sanitation Devices					
Marine Sanitation Device	33 CFR 159.15	347	347	347	
Total – Marine Sanitation Devices		347	347	347	0
Part 160- Lifesaving Equipment					
Automatic Disengaging Device	46 CFR 160.070	0	0	0	
Automatic Disengaging Device (SOLAS)	160.170	1	1	1	1
Balsa Wood Life Preserver	160.004	0	0	0	
Buoyant Apparatus for Merchant Vessels	160.010	54	54	54	54
Cleaning Process for Life Preservers	160.006	0	0	0	
Combination Flare and Smoke Distress Signal	160.023	0	0	0	
Cork Life Preserver	160.003	0	0	0	
Davit for Merchant Vessels	160.032	5	5	5	5
Embarkation Ladder	160.017	0	0	0	
Embarkation Ladder (SOLAS)	160.117	5	5	5	5
Emergency Drinking Water	160.026	0	0	6	0
Emergency Fishing Tackle Kit	160.061	0	0	1	
Emergency Provisions for Merchant Vessels	160.046	12	12	12	

Emergency Signaling Mirror	160.020	0	0	3	3
Evacuation Slide for Domestic Service	160.075	5	5	5	5
Exposure Suit	160.071	0	0	0	
Fibrous Glass Life Preserver - Jacket Type	160.005	0	0	0	
First-Aid Kit for Inflatable Life rafts	160.054	0	0	3	
Flame Safety Lamp for Merchant Vessels	160.016	0	0	0	
Float-Free Link for Life Floats & Bouyant Apparatus	160.073	0	0	0	
Floating Orange Smoke Distress Signal	160.057	2	2	2	2
Floating Orange Smoke Distress Signal (SOLAS)	160.157	2	2	2	2
Floating Orange Smoke Signal	160.022	3	3	3	
Gas Mask/Self-Contained Breathing Apparatus	160.011	0	0	0	
Hand Orange Smoke Distress Signal	160.037	3	3	3	
Hand Red Flare Distress Signal	160.021	4	4	4	4
Hand Red Flare Distress Signal (SOLAS)	160.121	1	1	1	
Hand-Held Rocket Propelled Red Parachute Flare	160.136	2	2	2	2
Hand-Held Rocket-propelled Parachute Red Flare	160.036	2	2	2	2
Hatchet (Lifeboat and Liferaft)	160.013	0	0	0	
Hybrid Inflatable Personal Floatation Device	160.077	2	2	2	2
Hydraulic Release for Lifesaving Equipment	160.062	5	5	5	
Hydraulic Release Unit (SOLAS)	160.162	6	6	6	
Inflatable Recreational PFD	160.276	1	1	1	1
Immersion Suit (SOLAS)	160.171	34	34	34	34
Inflatable Life Raft (SOLAS)	160.151	104	104	104	104
Inflatable Lifejacket (SOLAS)	160.176	0	0	0	
Inflatable Liferaft	160.051	16	16	16	16
Jackknife (with Can Opener)	160.043	0	0	1	
Kapok Buoyant Vest	160.047	0	0	0	
Kapok Life Preserver	160.002	0	0	0	
Kapok or Fibrous Glass Buoyant Cushion	160.048	0	0	0	
Launching Appliance - Davit	160.132	87	87	87	
Launching Appliance - Winch	160.115	65	65	65	
Life Float for Merchant Vessels	160.027	14	14	14	14

Life Raft for Merchant Vessels	160.018	1	1	1	1
Lifeboat (SOLAS)	160.135	35	35	35	35
Lifeboat Bilge Pump	160.044	0	0	3	
Lifeboat Compass	160.014	0	0	3	
Lifeboat First Aid Kit	160.041	0	0	5	
Lifeboat for Merchant Vessels	160.035	4	4	4	
Lifeboat Hand Propelling Gear	160.034	0	0	0	
Lifeboat Mechanical Disengaging Apparatus	160.033	2	2	2	
Lifeboat Release Mechanism (SOLAS)	160.133	38	38	38	
Lifeboat Sea Anchor	160.019	0	0	1	
Lifeboat Winch for Merchant Vessels	160.015	0	0	0	
Lifejacket (SOLAS)	160.155	12	12	12	
Liferaft Launching Appliance	160.063	0	0	0	0
Liferaft Launching Appliance (SOLAS)	160.163	0	0	0	0
Line Throwing Appliance	160.040	0	0	0	0
Marine Buoyant Device	160.064	581	581	581	581
Marine Evacuation System (SOLAS)	160.175	3	3	3	
Orange Flag Distress Signal for Boats	160.072	1	1	1	
Pistol-Projected Parachute Red Flare	160.024	0	0	0	
Plastic Foam Buoyant Cushion	160.049	1	1	1	
Protective Cover for Lifeboats	160.065	0	0	0	
Recreational Inflatable Personal Flotation Device	160.076	157	157	157	157
Red Aerial Pyrotechnic Flare Distress Signal	160.066	6	6	6	6
Rescue Boat (SOLAS)	160.156	32	32	32	
Rigid Liferaft (SOLAS)	160.118	1	1	1	
Ring Life Buoy (Cork or Balsa Wood)	160.009	0	0	0	
Ring Lifebuoy (SOLAS)	160.150	18	18	18	
Sea Water Desalter Kit for Merchant Vessels	160.058	2	2	2	
Shoulder Gun Type Line Throwing Appliance	160.031	2	2	2	2
Signal Pistol for Red Flare Distress Signals	160.028	3	3	3	3
Thermal Protective Aid (SOLAS)	160.174	3	3	3	
Three Minute Orange Smoke Signal (SOLAS)	160.122	1	1	1	

Unicellular Plastic Foam Buoyant Vest	160.052	0	0	0	0
Unicellular Plastic Foam Life Preserver	160.055	53	53	53	53
Unicellular Plastic Foam Work Vest	160.053	25	25	25	
Unicellular Plastic Life Ring Buoy	160.050	66	66	66	
Unicellular Polyethylene Foam Buoyant Vest	160.060	8	8	8	8
Water Spray Nozzle (1-1/2 inch Fixed Type)	160.025	0	0	0	
Total – Lifesaving Equipment		1,490	1490	1,516	1,102
Part 161- Electrical Equipment					
Electric Automatic Floating Water Light	161.001	0	0	0	
Electric Distress Light for Boats	161.013	0	0	0	
Electric Hand Flashlight	161.008	0	0	0	
Emergency Position Indicating Radio Beacon	161.011	0	0	0	
Fire Protective System	161.002	21	21	21	21
Floating Electric Water Light	161.010	6	6	6	
Floating Electric Water Light (SOLAS)	161.110	4	4	4	
Lifejacket Light (SOLAS)	161.112	39	39	39	39
Motor Lifeboat Searchlight	161.006	0	0	0	
Personal Flotation Device Light	161.012	36	36	36	
Position Indicating Light (SOLAS)	161.101	13	13	13	13
Sound Powered Telephone System	161.005	0	0	0	
Total – Electrical Equipment		119	119	119	73
Part 162 - Engineering Equipment					
Backfire Flame Arrester (for Carburetors)	162.015	0	0	0	
Backfire Flame Arrester for Gasoline Engines	162.041	0	0	0	
Backfire Flame Control; Fuel Induction System	162.042	0	0	0	
Ballast Water Management System	162.060	6	6	6	6
Boiler Feed Regulators and Low Water Alarms	162.024	0	0	0	
Carbon Dioxide Type Fire Extinguisher	162.030	0	0	0	
Carbon Dioxide Type Fire Extinguishing System	162.038	5	5	5	
Combination Fire Hose Nozzle	162.027	6	6	6	
Engineered Halocarbon Fire Extinguishing System	162.161	12	12	12	12
Engineered Inert Gas Fire Extinguishing System	162.162	2	2	2	2

Fire Monitor and Nozzle	162.127	1	1	1	1
Fixed Fire Extinguishing System	162.029	15	15	15	15
Foam Type Fire Extinguishing System	162.033	16	16	16	16
Halon 1301 Type Fire Extinguishing System	162.035	0	0	0	0
Heating Boiler	162.003	0	0	0	0
Incinerator	162.063	47	47	47	
Liquefied Compressed Gas Liquid Level Gage	162.019	0	0	0	
Liquefied Compressed Gas Safety Relief Valve	162.018	23	23	23	23
Liquified Petroleum Gas Consuming Appliance	162.020	0	0	0	
Oil Pollution Prevention Equipment	162.050	113	113	113	113
Oil Water Interface Detector	162.055	4	4	4	4
Packaged Automatically Controlled Auxiliary Boiler	162.026	0		0	
Portable Foam Applicators (SOLAS)	162.163	1	1	1	1
Power Boiler	162.002	0	0	0	
Pressure-Vacuum Relief Valves for Tank Vessels	162.017	24	24	24	24
Relief Valve (Hot Water Heating Boilers)	162.013	0	0	0	
Safety Valve (Power Boilers)	162.001	0	0	0	
Safety Valve (Steam Heating Boilers)	162.012	0	0	0	
Secondary Type Boiler Water Level Indicator	162.025	0	0	0	
Semiportable Dry Chemical Fire Extinguisher	162.032	0	0	0	
Semiportable Marine Type Fire Extinguisher	162.039	0	0	0	
Ship's Whistle/Sound Signaling Appliance	162.044	0	0	0	
Tank Vent Flame Arresters	162.016	0	0	0	
Water Mist Fire Extinguishing System	162.135	14	14	14	14
Water Spray Systems for Machinery Space (IMO)	162.036	0	0	0	
Water Spray Type Fire Extinguishing System	162.036	1	1	1	
Water-Based Fire Systems for Vehicle Spaces (IMO)	162.138	0	0	0	
Total – Engineering Equipment		290	290	290	231
Part 163 - Construction					
Pilot Hoist	163.002	0	0	0	
Pilot Ladder	163.003	5	5	5	
Total - Construction		5	5	5	

Part 164 - Materials					
Bedding Components	164.142	8	8	8	
Bulkhead Panels	164.008	1	1	1	1
Bulkhead Panels (IMO)	164.108	4	4	4	
Combustible Insulation for Cold Service Piping	164.143	0	0	0	
Deck Assembly	164.005	0	0	0	
Deck Assembly (IMO)	164.105	5	5	5	
Deck Covering for Merchant Vessels	164.006	0	0	0	
Draperies, Curtains & Other Suspended Textiles	164.111	0	0	0	
Fiber-Reinforced Plastic Grating	164.040	8	8	8	
Fire Dampers	164.139	6	6	6	6
Fire Door Control Systems (IMO)	164.146	0	0	0	
Fire Doors A-Class (IMO)	164.136	55	55	55	55
Fire Doors H-Class	164.236	0	0	0	
Fire Restricting Materials for High Speed Craft	164.201	1	1	1	
Fire Retardant Resins for Lifeboats and Rescue Boats	164.120	1	1	1	1
Fire-Resisting Division for High Speed Craft	164.207	3	3	3	
Floor Coverings (IMO)	164.117	17	17	17	
Interior Finish	164.012	17	17	17	17
Interior Finish (IMO)	164.112	83	83	83	83
Non-Combustible Material	164.009	1	1	1	1
Non-Combustible Material (IMO)	164.109	38	38	38	38
Penetration Seals A-Class	164.138	11	11	11	
Penetration Seals H-Class	164.140	8	8	8	
Plastic Piping Systems	164.141	29	29	29	
Primary Deck Coverings (IMO)	164.106	19	19	19	
Retroreflective Material	164.018	7	7	7	
Structural Ceiling (IMO)	164.110	2	2	2	
Structural Ceiling	164.010	0	0	0	
Structural Insulation	164.007	0	0	0	
Structural Insulation A-Class (IMO)	164.107	11	11	11	11
Structural Insulation H-Class	164.307	0			

Upholstered Furniture	164.144	10	10	10	
Windows A-Class (IMO)	164.137	8	8	8	8
Windows H-Class	164.237	0		0	
Total - Materials		353	353	353	221
Part 165 - Navigation (NVIC 8-01 change 3)					
Auto-Tracking Aid	165.111	0	0	0	
Automatic Identification System (AIS)	165.155	0	0	0	
Automatic Identification System (AIS-B/CS)	165.156	33	33	33	33
Automatic Radar Plotting Aid	165.120	0	0	0	
Bridge Navigational Watch Alarm System (BNWAS)	165.142	6	6	6	6
Chart Facilities for Shipborne Radar	165.122	0	0	0	
CHAYKA Equipment	165.136	0	0	0	
Daylight Signaling Lamp	165.166	0	0	0	
Differential Global Navigation Satellite System	165.133	0	0	0	
Differential Global Position Equipment System	165.132	0	0	0	
ECDIS Back-Up Equipment	165.124	8	8	8	8
Echo Sounding Equipment	165.107	0	0	0	
Electronic Chart Display and Information System	165.123	19	19	19	19
Electronic Plotting Aid	165.121	0	0	0	
Galileo Receiver Equipment	165.137	0	0	0	
Global Navigation Satellite System Equipment	165.131	0	0	0	
Global Positioning System (GPS) Equipment	165.130	0	0	0	
Gyrocompass	165.103	3	3	3	3
Gyrocompass for High Speed Craft	165.203	0	0	0	
Heading Control System	165.110	0	0	0	
Heading Control System for High Speed Craft	165.210	1	1	1	
Integrated Bridge System	165.140	0	0	0	
Integrated Navigational System	165.141	0	0	0	
Long Range Identification and Tracking of Ships	165.207	6	6	6	6
Loran-C Equipment	165.135	0	0	0	
Magnetic Compass	165.101	0	0	0	
Night Vision Equipment for High Speed Craft	165.251	0	0	0	

Radar Equipment with Automatic Radar Plotting Aid	165.115	0	0	0	
Radar Equipment with Automatic Radar Plotting Aid for High Speed Craft	165.216	0	0	0	
Radar Equipment with Automatic Tracking Aid	165.116	0	0	0	
Radar Equipment with Automatic Tracking Aid for High Speed Craft	165.217	0	0	0	
Radar Equipment with Automatic Tracking Aid for High Speed Craft	165.219	0	0	0	
Radar Equipment with Electronic Plotting Aid	165.117	0	0	0	
Radar Equipment with Electronic Plotting Aid for High Speed Craft	165.218	0	0	0	
Radar Reflector	165.160	0	0	0	
Raster Chart Display System (RCDS)	165.125	6	6	6	6
Rate of Turn Indicating Device	165.106	0	0	0	
Rudder Angle Indicator	165.106	0	0	0	
Searchlight ofr High Speed Craft	165.252	0	0	0	
Simplified Voyage Data Recorder (SVDR)	165.151	4	4	4	4
Sound Reception System	165.165	4	4	4	4
Speed and Distance Indicating Device	165.105	0	0	0	
Track Control	165.112	0	0	0	
Transmitting Magnetic Heading Device	165.102	0	0	0	
Voyage Data Recorder (VDR)	165.150	0	0	0	
Total - Navigation		90	90	90	89
Grand Total		2,694	2,694	2,720	1,716

^[1] The numbers were obtained from the following website, which lists all approved equipment under Subchapter Q: http://cgmix.uscg.mil/Equipment/ .

Appendix B: Total Estimated Annual Burden on Industry

Distinct Respondents: Equipment Manufacturers
Servicing Facilities
Independent Laboratories
Recognized Laboratories
480
233
139
Recognized Laboratories
4
856
Total

Reporting and recordkeeping

Category	Responses per year	Burden Hours/ Response	Annual Hour Burden	Wage Rate	Annual Cost Burden
Approvals					
New Applications	81	2	162	\$93	\$15,066
Renewal Applications	539	0.5	270	\$93	\$25,110
Manufacturer Recordkeeping	2,694	0.17	458	\$49	\$22,442
Servicing Facility Recordkeeping	233	2	466	\$49	\$22,834
Servicing Facility Problem Reports	233	1	233	\$93	\$21,669
Instructional Materials					
New Equipment	21	8	168	\$93	\$15,624
Renewals	273	2	546	\$93	\$50,778
Packing	272,400	0.1	27,240	\$42	\$1,144,080
Markings					
New	13,600	0.1	1,360	\$42	\$57,120
Revisions	108,800	0.1	10,880	\$42	\$456,960
Production Tests and Laboratory Inspections					
Production Test Records	1,716	2	3,432	\$49	\$168,168
Laboratory Inspections	1,716	24	41,184	\$49	\$2,018,016
Independent and Recognized Laboratories					
Independent Laboratory Applications	2	4	8	\$93	\$744
Recognized Laboratory MOU Application	0.1	80	8	\$93	\$744
Recognized Laboratory MOU Updates	1	15	15	\$93	\$1,395
Totals	402,310		86,430		\$4,020,750

^{*}Estimates may not sum due to rounding

Total

Total Respondents	856
Total Responses	402,310
Total Hour Burden	86,430
Total Cost Burden	\$4,020,750

^{*}Estimates may not sum due to rounding

Appendix C: Estimated Annual Federal Government Cost

Category	Responses	Burden Hours/ Response	Annual Hours	Wage Rate	Annual Cost
Approvals					
New Equipment Application Reviews (including Instructional Materials)	81	24	1,944	\$103	\$200,232
Renewal Equipment Application Reviews (including Instructional Materials)	539	4	2,156	\$103	\$222,068
Lifesaving Device Service Records	2,200	0.05	110	\$74	\$8,140
Servicing Facility Problem Report Reviews	233	0.5	117	\$81	\$9,477
Production Tests and Laboratory Inspections					
Production Tests and Quality Control Procedures Monitoring (Onsite) Reviews	1	2,000	2,000	\$81	\$162,000
Production Tests and Quality Control Procedures Monitoring (via Independent Lab Reports) Reviews	1,716	2	3,432	\$103	\$353,496
Independent and Recognized Laboratories					
Independent Laboratory Application Reviews	2	2.5	5	\$103	\$515
Recognized Laboratory MOU Application Reviews	0.1	40	4	\$103	\$412
Recognized Laboratory MOU Application Update	1	35	35	\$103	\$3,605
Totals	4,774		9,803		\$959,945

^{*}Estimates may not sum due to rounding

Total

Total Cost	\$959,945
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^{*}Estimates may not sum due to rounding