United States Coast Guard



Na	Name of Vessel								
Off	Official Number								
Da	Date Completed					Location			
SO	LAS Certific	ates	s Issued						
	Yes		No						
Ro	Route								
	Oceans		Limited Coa	ast	wise		Lakes / Bays / Sounds		
	Coastwise		Great Lakes	S			Rivers		
Ins	pection Typ	е							
	 Inspection for Annual Certification (COI) Inspection 								
	Drydock Inspection								
Ins	pectors								
1.				-	2				

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Distance and Energy											
Kilowatts (kW) X 1,341 = Horsepower (hp)											
Feet (ft)		Х		3.2	281		=	Met	ers ((m)	
Long To	n (Ľ	T) X		.98	421		=	Met	ric T	on	(t)
Liquid (NOTE: Values are approximate.)											
Liqu	Jid	bbl/L	Т	m	³ /t		bbl/m ³			bb	l/t
Freshwa	ter	6.40)	1.	00		6.29			6.2	29
Saltwate	r	6.24	4	.9	75		6.13			5.9	98
Heave O	il	6.77	7	1.	06		6.66			7.0)6
DFM		6.60			19		7.48			8.9	
Lube Oil		7.66	6	1.	20		7.54			9.0)5
Weight											
1 Long T		= 2240	lb		1	Metric	Ton	= 22	204 I	b	
1 Short 1	「on	= 2000			1	Cubic	Foot	= 7.	48 g	al	
1 Barrel	(oil)	= 5.61	ft = 42 gal		1	psi		=.06	6895	Ва	r =
		= 6.29									water
Temperature: Fahrenheit = Celsius (F= 9/5 C+32 and C=5/9 (F-32))											
0	=	-17.8	80		=	26.7		200		=	93.3
32	=	0	90		=	32.2		250		=	121.1
40	=	4.4	100		=	37.8		300		=	148.9
50	=	10.0	110		=	43.3		400		=	204.4
60	=	15.6	120		=	48.9		500		=	260
70	=	21.1	150		=	65.6		1000		=	537.8
Pressure:											
1 Bar	=	14.5 psi	5 Bars	=	72.5	psi	9 B	ars	=	1:	30.5 psi
2 Bars	=	29.0 psi	6 Bars	=	87.0	psi	10	Bars	=		45.0 psi
3 Bars	=	43.5 psi	7 Bars	=	101.5	i psi					-
4 Bars	=	58.0 psi	8 Bars	=	116.0) psi					

Inspection Item	Applicable Regs.	Yes	<u>No</u>
Do crew members know who the Designated Employee Representative (DER) is?	49 CFR 40.3		
Is there a copy of the company's policy or policy statement aboard?	46 CFR 16.401		
Are crew members aware of where to obtain Employee Assistance information?	46 CFR 16.401		
Has supervisory and general crew member drug awareness training been conducted?	46 CFR 16.401		
Are Hotline Numbers posted in a common space?	46 CFR 16.401		
Knowledge of where to go or how to get drug and alcohol testing accomplished in the event of a Serious Marine Incident (2hr testing for alcohol; 32			
hr testing for drugs)	46 CFR 4.06		
Are Alcohol Testing Devices kept onboard?	46 CFR 16.240 46 CFR 4.06		
Were crew members pre-employment tested?	46 CFR 16.210		
Have crew members been randomly tested this years	2 46 CFR 16.230		
PROCEAM INFO	RMATION		

PROGRAM INFORMATION

Name of Consortium/TPA: or □ "Self – Run Program"	
SMI Testing Facility *Must Test Drugs & Alcohol*	
24hr SMI Testing Facility: □ "Same As Above"	
 Drug & Alcohol Program Compliant? Program Compliant items corrected on-scene 	 Program Not Compliant Full Audit Recommended 835 No-Sail issued
Notes:	

IMO Applicability Dates:

-				
(°0	nu	nrc	inn	001
\mathbf{u}	' I V	ers	IUII	э.

Reference	Date
SOLAS 1960	26 MAY 65
SOLAS 1974	25 MAY 80
1978 Protocol to SOLAS 1974 1981 Amendments (II-1 & II-2) 1983 Amendments (III)	01 MAY 81 01 SEP 84 01 JUL 86
Various additional amendments to SOLAS	
MARPOL 73/78 Annex I MARPOL 73/78 Annex V MARPOL 73/78 Annex VI	02 OCT 83 31 DEC 88 19 MAY 05
COLREGS 1972 Various additional amendments to COLREGS	15 JUL 77
Load Line 1966	21 JUL 68
STCW 1978	28 APR 84
1991 Amendments 1994 Amendments 1995 Amendments	01 DEC 92 01 JAN 96 01 FEB 97
MARPOL 73/78 Annex VI COLREGS 1972 <i>Various additional amendments to COLREGS</i> Load Line 1966 STCW 1978 1991 Amendments 1994 Amendments	19 MAY 05 15 JUL 77 21 JUL 68 28 APR 84 01 DEC 92 01 JAN 96

This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, CFR's, NVIC's or any locally produced cite guides for specific regulatory references. Not all items in this book are applicable to all vessels. Due to recent regulatory revisions, OLD SUBCHAPTER T cites (applicable to existing vessels on or before March 10, 1996) are provided in addition to new Subchapter T cites. Example (46 CFR 184.10-1)

NOTE: Guidance on how to conduct inspections on U.S. flagged SPV can be found in Marine Safety Manual (<u>MSM</u>) Volume II, Chapter B1: Inspection of Vessels for Certification. All MSM cites listed in this book refer to MSM Volume II, unless otherwise indicated.

ALUMINUM PLATE						
Decimal	MM Standard Plate	Wastage MM @ 25	Aluminum Wastage Allowances, Conventional Vessels Under 90 M (295 Feet) built to ABS Class			
.1969	5mm	3.75mm	Main Deck Plating 15%			
.2362	6mm	4.50mm	Bottom Plating 15%			
.2756	7mm	5.25mm	Keel Plating 15%			
.3150	8mm	6.00mm	Sheer Strake 15%			
.3543	9mm	6.75mm	Bilge Strake 15%			
.3937	10mm	7.50mm	Side Shell Plating 20%			
.4331	11mm	8.25mm	Forecastle 20%			
.4724	12mm	9.00mm	Internals and Bulkheads 20%			
.5118	13mm	9.75mm				
.5519	14mm	10.50mm				

Conversions:

Involved Parties & General Information:

STEEL PLATE						
Fractions	Decimal	MM Standard Plate	Wastage Standard / MM @ 25			
1/8	.125	3.175mm	.0938 / 2.381			
1⁄4	.250	6.35mm	.1875 / 4.7625			
3/8	.375	9.52mm	.2812 / 7.14			
1/2	.500	12.70mm	.3750 / 9.525			
5/8	.625	15.78mm	.4688 / 11.906			
3/4	.750	19.05mm	.5625 / 14.287			
7/8	.875	22.22mm	.6566 / 16.66			
1	1.00	25.40mm	.7500 / 19.05			
1 1/8	1.125	28.57mm	8430 / 21.431			
1 ¼	1.250	31.75mm				
1 3/8	1.375	34.92mm				
1 ½	1.500	38.10mm				
1 5/8	1.625	41.27mm				
1 ¾	1.750	44.45mm				
1 7/8	1.875	47.62mm				
2	2.00	50.8mm				

Vessel's Representatives:						
Phone Numbers:						

Owner-Listed on DOC (if applicable)	
No Change	

Operator:	
No Change	

Vessel Information:

Last Drydocking) date:	Next Drydocking date:			
Location of Last	Drydocking:				
Built Date (use	Built Date (use delivery date):				
Overall Length (in feet):					
Maximum Passenger Allowed:					
Overnight Accommodations:					
Yes	No	If yes, how many?			

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Deficiency Summary Worksheet

Task 1: Pre-Inspection Administrative Items

Name of Vessel	VIN			Step	Action	Ref
				1.1	Retrieve notice of arrival.	
Deficiency		Req't. Issued / Date Completed		1.2	 Review MISLE records/local file. Special notes Deficiency history Vessel Critical Profile (VCP) Determine user fee payment status 	46CFR 2.10
				1.3	 Determine proper type/scope of inspection. Certificate of inspection (COI) Obtain application of inspection Annual Hull/Drydock 	46CFR 176.400 46CFR 176.105 46 CFR 176.500 46 CFR 176.600
				1.4	Prepare statutory certificates.Temporary COISOLAS Passenger Ship Safety Certificate	46CFR VOL II 46CFR176.910
				1.5	Review regulatory applicability dates for "new" or "existing" vessels.CFR	46CFR 175.400
				Notes		
			-			
			-			

Certificates and Documents

Name of Certificate	Issuing Agency	# OI	Port Issued	lssue Date	Exp. Date	Endorse Date
Certificate of Documentation No Change 	nsce					
Passenger Ship Safety (PSS)	USCG					
Load Line No Change						
International Tonnage (ITC)						
Safety Management (SMC) No Change 						
Document of Compliance (DOC) No Change						
FCC Station License	FCC					

Recommended US Vessel Deficiency Procedures:

Step	Act	ion
1	Identify deficiency.	
2	Inform vessel representative.	
3	Record on the Deficiency Summ	nary Worksheet (next page).
4	If deficiency is corrected prior to	end of inspection, go to Step 7.
5	If deficiency is unable to be corr issue CG-835 in accordance wit	
	IF deficiency:	THEN issue CG-835:
	Does NOT immediately impact crew/passenger safety, security, hull seaworthiness, or the environment, e.g., • Missing placards • Non-metallic expansion joints more than 10 years in service Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g., • Expired international certificates • Automation defect • Insufficient lifesaving equipment	That provides a specific time for correcting deficiency, e.g., • "X" number of days • At next drydock That restricts operation of vessel to meet current vessel conditions, e.g., • Reduced route • Increased crew • Fewer passengers
	 Insumcient inesaving equipment DOES immediately impact crew/passenger safety, security, hull seaworthiness, or the environment, and cannot be modified to meet less stringent requirements, e.g., Missing or defective firefighting equipment Structural defect or damage 	 Fewer passengers That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g., Prior to carrying passengers Prior to carrying cargo
6	Enter CG-835 data in MISLE.	

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Task 19 Post-Inspection Items

Ref

Step		Action	
19.1	Issue letters.		

Name of Certificate	Issuing Agency	# D	Port Issued	lssue Date	Exp. Date	Endorse Date
FCC Safety Certificate No Change 	FCC					
IFCC Operations Permit No Change 	FCC					
FCC Marine Radio Operator Permit No Change	FCC					
International Ship Security Certificate (ISSC)						
International Air Pollution Prevention Certificate (IAPP)						
Engine International Air Pollution Prevention Certificate (EIAPP)						

Task 18: Drydock and Ground Tackle (Continued)

Step		Action	Ref
2.1		Verify Certificate of Inspection is posted (COI) All pages should be visible.	46 CFR 176.302 46 CFR 176.302
2.2		Verify that Certificate of Documentation (COD)/ State registration is valid.	46 CFR 67.7
2.3		Verify that the stability letter is posted.	46 CFR 176.306
2.4		Verify that stability books/letters are available.	46 CFR 176.306
2.5		Verify that the Small Passenger Vessel (SPV) Decal is posted.	46 CFR 176.310
2.6		Verify that station bill is posted.Emergency duties	46CFR 185.514
2.7		(Over 65 ft with crew of 4 or more) Examine the waste management plan. (≥ 40 ft and ocean-going)	33 CFR 151.57
0.0	_	MARPOL V placard posted (≥ 26 ft)	33 CFR 151.59 46 CFR 16
2.8		Verify drug testing program.	
2.10		Examine life raft servicing certificates.	46 CFR 185.730 46 CFR 160.151- 57(p)
2.11		Examine hydrostatic release units (non disposable)	46 CFR 185.740 46 CFR 160.062
2.12		Verify international safety and pollution prevention convention certificates are:Valid	MARPOL/SOLAS
		Accurate	
	be	e: If MARPOL IV, Certificate of Equivalence shall not issued to Inspected Small Passenger vessels on ernational voyages. Instead the OCMI shall amend the I.	MOC Policy letter 03-03
Notoo			

Task 2: Certificate and Document Review

Notes	
-------	--

Step	Action	Ref
18.10	 Inspect internal structural members. Frames Floors Shelves, brackets, clamps Bulkheads Tank tops 	46 CFR 176.610 FRP NVIC 8-87 Steel NVIC 7-68 Wood NVIC 7-95
18.11	 Inspect for watertight integrity. Hull openings and closures Deck openings and closures Watertight doors Watertight subdivisions/bulkheads 	46 CFR 176.802 46 CFR 176.124 MSM Vol IV CH 6.I.5
18.12	 Inspect for stability. Drainage Major changes/modifications Solid fixed ballast 	46 CFR 171 (H)
18.13	Inspect ground tackle. Anchor Cable	46 CFR 184.300 46 CFR 184.10

Task 18: Drydock and Ground Tackle (Continued)

Step	Action	Ref
18.6	 Airports below weatherdecks Dogs or other securing appliance Rims or seats Glass Dead covers Hinges and lugs 	MSM Vol. IV Ch 6.I.4
18.7	Self-bailers and cockpit freeing ports Check valves Required area 	46 CFR 178.420
18.8	Compartment or inner bottom drains (drydocking drains) Secure plugs	
18.9	Inspect thru-hull fittings.	46 CFR 171.119
	 Sea chests Sea valves (must be fitted on all fittings within 6 inches of deepest load waterlight) Keel/grid coolers Bow/stern thrusters Transducers Shaft packings Pudder packings 	46 CFR 176.610 46 CFR 176.630 MSM Vol II CH B.3.D.2

□ Rudder packings

Task 2: Certificate and Document Review (Continued)

Step	Action	Ref
2.12	Verify International Ship Management (ISM) Code Document of compliance and Safety Management Certificate (SMC) on a foreign voyage.	SOLAS Chap IX 33 CFR 96
2.13	Examine fire-servicing certificates.	46 CFR 176.810
2.14	Review packaged hazardous materials for appropriate cargo documents/records (explosives).	49 CFR 176 46 CFR 185.356
2.15	 Vessel General Permit. Master aware of the VGP (Provide master with copy of VGP fact sheet) 	EPA VGP, CG- 543 Policy Ltr 11-01

Notes:

Task 3: Crew Requirements

Step	Action	Ref
3.1	 Examine Master's License. Original on board Expiration date Route Tonnage Endorsements 	46 CFR 185.402
3.2	 Examine Mate's License (if required). Original on board Expiration date Route Tonnage Endorsements 	46 CFR 185.402
3.3	 Verify Global Maritime Distress and Safety System (GMDSS) personnel certification. 	STCW 95 47 CFR 80 NVIC 3-99
3.3	 Examine Sr. Deckhand Requirements (required for High Speed SPV). Designated in writing Written designation aboard Vessel experience Helm experience 	NVIC 1-91 CH 1
3.4	 Discuss recommended Deckhand qualifications. (required for High Speed SPV). 	NVIC 1-91 CH 1
3.5	Examine Deckhand Red Cross First Aid / CPR Cards for 50% of crew	NVIC 1-91

Task 18: Drydock and Ground Tackle

Step	Action	Ref
18.1	Verify Marine Chemist Certificate (If required).	46 CFR 176.710
18.2	 Inspect external structural members. Shell Keel and bilge keel High stress locations Caulking Welds 	46 CFR 176.610 Aluminum NVIC 11-80 FRP NVIC 8-87 Steel NVIC 7-68 Wood NVIC 7-95
18.3	Inspect running gear. Rudders Propellers Tailshaft(s)	46 CFR 176.610
18.4	 Inspect fastenings. Hull fastenings Keel bolts Attachments/appendages 	46 CFR 176.610 Wood NVIC 7-95
18.5	Examine Hull Markings. Draft marks (>65 feet or SOLAS) Load marks (>65 feet or SOLAS) Load line (vsl>79 feet)	46 CFR 185.602

□ Name/ hailing port/ state number

Notes:

Task 17: Plan Review for Modifications (Continued)

Step

Ref 46 CFR 176.702

Determine if any of the following have been installed or replaced onboard a vessel. 17.4

-	
If item is	Then conduct
launching appliance; survival craft; rescue boat; fixed gas fire extinguishing system; machinery; fuel tank; or pressure vessel.	inspections and tests required by 46 CFR 176.402 (d)

Action

17.5 Ensure vessel's current condition is properly documented in MISLE and vessel's file.

Task 4: Logs and Manuals

Step	Action	Ref
4.1	Examine current training records/logs.Date and general description of training topicsTraining record/log for each crewmember	46 CFR 185.420
4.2	 Examine emergency training and drills logs. Fire – Man Overboard – Abandon ship Date of drill and training with general description 	46 CFR 185.520 46 CFR 185.524
4.3	 Examine lifesaving equipment maintenance. Required maintenance documented Manufacturer's Instructions on board for survival craft, rescue boats, and launching appliances for vessels more than 65 feet 	46 CFR 185.702
	 Weekly maintenance inspections survival craft, rescue boat, and launching appliance Monthly inspections survival craft, rescue boat, and launching appliance 	46 CFR 185.720 SOLAS III/20.6 46 CFR 185.722 SOLAS III/20.7
	 Quarterly inspections of winch control apparatus of the launching appliance 	46 CFR 185.724
	 Annual inspections; rescue boat stripped, cleaned, and thoroughly inspected 	46 CFR 185.726
	Annual inspections; davit, winch, falls, or other launching appliance thoroughly inspected	46 CFR 185.726 SOLAS IV/ 15
	 Shore-Base Maintenance report for EPIRB Steering gear test and drill 	SOLAS V/26
	Monthly test of EPIRB	46 CFR 185.728

Notes:

Notes:

Task 4: Logs and Manuals

Step		Action	Ref
4.4		Verify presence of training manual. (SOLAS only)	SOLAS III/35
4.5		Examine official logbook.Vessels on a Foreign Voyage	46 CFR 185.280
4.6	•	Verify crew and passenger list maintained cean/Coastwise {O\C} and overnight or embark or embark at different ports).	46 CFR 185.502
4.7		Verify voyage plan prepared (O/C or overnight).	46 CFR 185.503
4.8		Verify passenger count.	46 CFR 185.504
4.9		Verify safety orientation.	46 CFR 185.506
4.10		Verify VGP compliance.	VGP Part 4
		Record of Routine visual inspections	
		 Record of annual inspections 	
		 Record of dry-dock inspection 	
		Documentation of Corrective Action Assessments	VGP Part 3

Notes:

Task 17: Plan Review for Modifications

Step	Action	Ref
17.1 🗆	 Verify that vessel's construction/equipment remains unchanged. Wind profile Stability characteristics Engines Ballast has not been added/deleted/moved Tankage capacity has not increased/ decreased/moved 	46 CFR 178.32 (d)
17.2 🗆	 Verify that vessel meets subdivision requirements (if applicable). Watertight bulkheads have not been moved or removed No unauthorized openings have been placed in watertight bulkheads 	46 CFR 179.2
17.3	 Verify that the OCMI has approved all repairs and/or alterations that affect the safety of the vessel. Replacement, repair, or refastening of deck or hull planking, plating, and structural members Repair of plate or frame cracks Damage repair or replacement, other than replacement in kind, of electrical wiring, fuel lines, tanks, boilers and other pressure vessels, and steering, propulsion, and power supply systems Alterations affecting stability Repair or alteration of lifesaving, fire detecting, or fire extinguishing equipment 	46 CFR 176.7((a)
Notes:		

Task 16: Man Overboard Drill (Continued)

Step	Y N	Action
16.10		Did crewmembers communicate effectively with Master, other crewmembers, and passengers?
16.11		When alongside, did the crew members have a plan for retrieving the victim?
		□Y□N Did they use a boat hook or fish gaff to retrieve the victim?
		□Y□N Did they use a ring life buoy or other safe lifesaving device to reign in the victim?
16.12		When the victim was recovered, did the crew complete basic first aid that included the ABCs?
16.13		Did the drill follow the training and operations manual, or emergency instructions?
16.14		Was the drill satisfactory?

Task 5: Navigation Safety Systems

Step	Action	Ref
5.1	 Verify navigation publications and charts. Current and corrected charts (large enough for safe navigation) U.S. Coast Pilot Coast Guard Light List Tide tables Tidal current tables Rules of the Road (COLREGS 	46 CFR 184.420
5.2	Test navigation lights and signals (Vessels>65 feet must meet UL 1104).	46 CFR 183.420 33 CFR Part 84
5.3	Test radars (O/C/LC/GL and >49 passengers).	46 CFR 184.404
5.4	Inspect magnetic compass. (Except rivers and short restricted routes)	46 CFR 184.402
5.5	Inspect Sound Signaling devices U Whistle/horn Roll proper size	33 CFR 86

□ Bell proper size

Notes:

Task 5: Navigation Safety Systems (Continued)

Step	Action	Ref	
	ng devices (distress		68
and expirat	day smokes (correc ion)		
□ Stowed in t watertight	prightly colored, port	able	
container			
	stress Signals" ns with proper expir	ation date 46 CFR 185.6	614
IF vessel travels		THEN it MUST carry:	
Oceans / Coastwise / Limit Coastwise / Great Lakes R	•••	6 red hand flares and	
		6 orange day smokes	
Lakes, Bays, Sounds / Rive	ers Route	3 red hand flares and 3 orange day smokes	
5.7	mmunications.	46 CFR 184.6	602
A fixed mean from:	ans of two-way com	munication	
•	ng station to machir ew vessels)	nery space	
	ng station to auxilia ew vessels)	ry steering	
Handhe	eld radios acceptabl	e	
5.8 🛛 Test public add	ress system.	46 CFR 184.6	610
IF vessels is:	AND carries:	THEN vessel MUST hav	ve:
> 65 feet in length		→ Fixed installation	
\leq 65 feet in length	> 49 passengers	Battery bullhorn	
\leq 65 feet in length	<u><49</u> passengers	NONE required	
Notes:			

Task 16: Man Overboard Drill

Step	Y	Ν	Action
16.1			Did the crew throw Oscar or fender overboard?
16.2			Did the crewmember call out "man overboard" and which side of the vessel the victim fell over, throw ring life buoy or PFD, fender, or other flotsam overboard and begin pointing to victim?
16.3			Did crewmember throw ring life buoy, PFD, fender, or other flotsam over?
16.4			If at night, was the waterlight attached to the life ring buoy and, was it deployed immediately?
16.5			Did the Master mark vessel's position, and conduct a Williamson turn to get on reciprocal course (if man overboard is not in sight) or a destroyer turn (if man overboard is still in sight)?
16.6			Did the Master sound danger signal, mark position, course and speed, announce situation to crew/passengers and make the call to local CG or vessels in surrounding area?
16.7			Did the Master control situation from helm, make announcements, and communicate effectively with crew?
16.8			Did the Master approach the victim with a plan and was he successful?
16.9			Did the crewmembers properly don PFDs, take control of the situation, and direct passengers as appropriate?

Task 15: Abandon Ship Drill

Step	ΥI	Ν	Action
15.1			Advise crew the vessel is sinking and cannot be saved.
15.2			Did the Master simulate broadcasting a mayday on the VHF radio and provide the vessels position, number of persons on board, and type of distress?
15.3			Were life preservers properly donned by crew and passengers?
15.4			Did the crew have a plan (demonstrate as necessary) on how to deploy and marshal the vessel's primary lifesaving devices?
15.5			Did the Master simulate activating the vessel's 406 EPIRB?
15.6			Did the drill following the training and operations manual or SOLAS training materials note or emergency instructions or other placards posted?
15.7			Was the drill satisfactory?

Task 5: Navigation Safety Systems (Continued)

Step			Action		Ref	
5.9		Ver	ntrol.	46 CFR 184.620		
			Two independent means of propulsion engine	of controlling each		
			Multiple engine vessel with propulsion control for each a second means			
			Must have engine shutdov station	vns at the operating		
5.10	□ oil p		, jacket water, and lube erating station	46 CFR 182.410 (b)		
5.11		Ver	rify radio equipment oper	ation	46 CFR 184.502	
					47 CFR 80.905	
IF vessel travels				THEN it MUST	Γ carry:	
More t			00 feet from shore but than 20 NM	1 VHF		
	2	0 N	M to 100 NM	1 VHF and 2	1 MF	
	1(00 N	IM to 200 NM	1 VHF, 1 MF, 1 SSB or INMARSAT radio, and 1 NAVTEX receiver.		
More than 200 NM 1 VHF, 1 MF, 1 SSB or INMARS radio, and 1 NAVTEX receiver, distress frequency receiver, and automatic radiotelephone alarr signal generator						
Vessels 65 ft and over operating in VTS waters are re				S waters, are required	at least two	

Vessels 65 ft and over, operating in VTS waters, are required at least two VHF radios. One radio must be tuned to the VTS frequency under 33 CFR 161.12 as per 33 CFR 26.03(f)

Notes:

Task 5: Navigation Safety Systems (Continued)

Step	Action	Ref
5.12	 Verify emergency broadcast placard is posted next to all radio installations. 	46 CFR 184.506
5.13	 Verify that the emergency instructions are posted. 	46 CFR 185.510
5.14	 Witness operation of electronic position fixing device (oceans only). 	46 CFR 184.410
5.15	 Inspect EPIRB (high seas or >3 nautical miles on Great Lakes). Hydrostatic release date – 2yrs NOAA Registration – 2yrs Battery - per manufacture Name of vessel 	46 CFR 180.64 46 CFR 185.740 (b) 46 CFR 185.604 (c) 47 CFR 80.1061 (f)
5.16	 Inspect bridge windows. 	46 CFR 177.1010
5.17	□ Test bridge steering system and steering gear.	46 CFR 182.600
5.18	 Inspect propulsion shaft tachometer (SOLAS only). 	SOLAS CH II-1/31
5.19	□ Inspect navigational warning system/NAVTEX.	SOLAS CH IV/7
5.20	Inspect speed/distance indicator, 9 GHZ radar echo-depth sounder (SOLAS only).	SOLAS CH V/19/2.3
5.21	Verify voyage data recorder (SOLAS only).	SOLAS CH V/20
5.22	 Long Range Identification & Tracking (LRIT) (SOLAS only). Conformance test report 	SOLAS CH V/19-1 33 CFR 169

Task 14: Fire Drill

Step	Y	Ν	Action
14.1			Advise crew smoke and flames coming from a space.
14.2			Did crewmember sound alarm?
14.3			Did crewmember attempt an initial action?
14.4			Did the Master turn the vessel into the wind, slow down, etc, and make announcements to crew/passengers and make the call to local CG or vessels in the surrounding area?
14.5			Did Master control situation from helm, make announcements, and communicate effectively with crew?
14.6			Did crewmembers take control of situation and direct passengers as appropriate?
14.7			Did crewmembers communicate effectively with Master, other crewmembers, and passengers?
14.8			Was a charged firemain or fire buckets provided?
14.9			Did crewmember effectively fight the fire with portable fire extinguishers, close off ventilation closures, secure power and fuel?
14.10			If available, did the crew know how to operate and deploy the Fixed Fire Extinguishing System and/or fire pump?
14.11			Did the crew understand what agent they were using?
14.12			Did the drill follow the training and operations manual, the emergency instructions, or other placards posted?
14.13			Was the drill satisfactory?

Notes:

Task 13: MTSA/ISPS Compliance (Continued)

66

Action	Ref	Step		Actic
Observe security drill exercising the activation of the provisions in the VSP or ASP related to a security threat, breach, security communications, change of security level, or other security related incident or action as describe in the VSP or ASP.		6.1		 Examine external hull st Decks Shell Bulkheads Strength members Visible damage Bulwarks, rails, and gu Welds
by the Master and VSO. Critique Drill with VSO/CSO		6.2		 Review stability letter. Drainage (scuppers/fm Major changes/modific sail area or weight Solid fixed ballast
		6.3		 Examine hull markings. Draft marks and load n Load line (vsl >79 feet Name/hailing port/ sta Official number perma structural member
		Notes	:	
	of the provisions in the VSP or ASP related to a security threat, breach, security communications, change of security level, or other security related incident or action as describe in the VSP or ASP. Drill selection and location shall be as directed by the Master and VSO. Critique Drill with VSO/CSO	Observe security drill exercising the activation of the provisions in the VSP or ASP related to a security threat, breach, security communications, change of security level, or other security related incident or action as describe in the VSP or ASP. Drill selection and location shall be as directed by the Master and VSO.	Observe security drill exercising the activation of the provisions in the VSP or ASP related to a security threat, breach, security communications, change of security level, or other security related incident or action as describe in the VSP or ASP. 6.2 Drill selection and location shall be as directed by the Master and VSO. 6.2 Critique Drill with VSO/CSO 6.3	Observe security drill exercising the activation of the provisions in the VSP or ASP related to a security threat, breach, security communications, change of security level, or other security related incident or action as describe in the VSP or ASP. Drill selection and location shall be as directed by the Master and VSO. 6.2 Critique Drill with VSO/CSO 6.3

Task 6: Structural Integrity

Step	Action	Ref
6.1	 Examine external hull structure. Decks Shell Bulkheads Strength members Visible damage Bulwarks, rails, and guards Welds 	46 CFR 176.802 Aluminum NVIC 11-80 FRP NVIC 8-87 Steel NVIC 7-68 Wood NVIC 7-95
6.2	 Review stability letter. Drainage (scuppers/freeing ports) Major changes/modifications affecting wind/heal sail area or weight Solid fixed ballast 	46 CFR 171 H
6.3	 Examine hull markings. Draft marks and load marks (>65 feet or SOLAS) Load line (vsl >79 feet) Name/hailing port/ state number Official number permanently affixed to interior structural member 	46 CFR 185.602 46CFR 185.30-3 46 CFR 67.123 46 CFR 67.121

Task 6: Structural Integrity (Continued)

Step	Action	Ref
6.4	 Examine internal compartment structures. Frames Floors Shelves, brackets, clamps Bulkheads Ventilation 	46 CFR 176.802 Aluminum NVIC 11-80 FRP NVIC 8-87 Steel NVIC 7-68 Wood NVIC 7-95
6.5	 Examine watertight integrity. Hull openings and closures Deadlight covers Deck openings and closures Sill heights, combings, knife edges, gaskets, hardware Watertight doors and subdivision bulkheads Piping Free of sluice valves 	46 CFR 176.802 46 CFR 179.360 46 CFR 171.24 Wood NVIC 7-95 NVIC 2-62 46 CFR 182.720 (d) 46CFR 182.40-1 46 CFR 179.320 (d)
6.6	Examine Scuppers / Freeing ports Vessels with cockpit Vessels with well deck 	46 CFR 171.145 46 CFR 171.150
6.7	Examine dead light covers on port lights below main deck	46 CFR 171.117 46 CFR 179.350
6.8	 Inspect rails. Deck rails (39.5 Inches minimum and 200 pound point load minimum) Storm rails 	46 CFR 177.900 46 CFR 177.920

Task 13: MTSA/ISPS Compliance (Continued)

Step	Action	Ref
13.25 🗆	 Amendment and audit CSO / VSO audit letter attached to VSP as required ISSC Audits conducted as required (annually or after vessel modifications) 	33 CFR 104.415
13.26	 Ship Security Alert System (vessels subject to SOLAS only) On the bridge and one other location Designed to prevent inadvertent activation Covert (unmarked, silent, and need to know) Tested IAW VSP 	ISPS Part A, 9.4.18

Task 13: MTSA/ISPS Compliance (Continued)

Step	Action	Ref
13.18	 Security measures for handling cargo Identifying cargo tamper Identifying approved cargo Access point – inventory control Checking cargo for dangerous substances 	33 CFR 104.275 ISPS, Part A 7.2.6
13.19	Security measures for delivery of vessel stores and bunker • Security procedures followed • Standing agreements valid	33 CFR 104.280 ISPS, Part A, 7.2.6
13.20	 Security measures for monitoring IAW VSP Lighting Test intrusion alarms Emergency search procedures 	33 CFR 104.285 ISPS, Part A, 7.2.5
13.21	Security Incident ProceduresWitness during drill	33 CFR 104.290
13.22	Additional requirements for passenger vessels or ferries	33 CFR 104.292
13.23	Vessel Security Assessment ReportReviewed and attached to VSP	33 CFR 104.305(d)
13.24	Vessel Security Plan Reviewed	33 CFR 104.400

Task 7: General Health and Safety Systems

Step	Action	Ref
7.1 🗆	Test general alarms (vessels with overnight accommodations).	46 CFR 183.550
7.2 🗆	Verify upper decks marked for maximum number of passengers as per stability letter.	46 CFR 185.602g
7.3 🗆	Inspect crew spaces.Overnight accommodations	46 CFR 177.700 46 CFR 177.710 46 CFR 177.25
7.4 🗆	Inspect passenger accommodations.Overnight accommodationsSeating	46 CFR 177.800 46 CFR 177.30
7.5 🗆	 Verify means of escape. Two widely separated Adequate size Operable for either side Open towards expected escape direction Properly Marked 	46 CFR 177.500
7.6	 Inspect cooking and heating system. Clear of combustible materials Properly fitted/installed for use in heavy seas No open flames without approval certification Grease trap Remote shutoff valve for gas systems No continuous pilot lights or glow plugs Ventilation ducts above frying vats or grills constructed of >11 gage steel Gas systems Cooking equipment, grab rails/sea rails 	46 CFR 177.410 46 CFR 184.210 46 CFR 184.240 46 CFR 184.220
Notes:		

Task 7: General Health and Safety Systems (Continued)

Task 13: MTSA/ISPS Compliance (Continued)

Step		Action	Ref	Step	Action	Ref
7.7		 Conduct sanitation inspection. Quarters Toilets/washrooms Galleys Pantries Lockers and similar spaces 	46 CFR 176.818	13.14	 Security systems and equipment maintenance Testing completed IAW manufacturer's recommendations Working properly, effectively functions IAW VSP. Ship Security Alert System (SSAS) 	33 CFR 104.260
7.8		 Verify presence of first aid kit. Marked "First Aid Kit" Watertight container Easily visible and readily available to crew Must be Coast Guard Approved 	46 CFR 184.710 46 CFR 160.041	13.15	 Security measures for access control Access points examined – signs posted in conspicuous locations. Control areas for authorized dangerous substances / devices 	33 CFR 104.265 ISPS,Part A, 7.2.2
7.9		 Inspect ventilation systems. Adequate ventilation to enclosed spaces normally occupied Must be capable of being shut down from the pilot house 	46 CFR 177.600		 Means of identifying unauthorized personnel TWIC for unescorted access to secure areas 	
7.10		 Inspect portable lights. □ At least two on board □ Located at operating station and at access to 	46 CFR 183.430	13.16	(Pending receipt of TWIC)Access permitted for up to 30 days if:	33CFR 104.267
7.11		 propulsion machinery space Ensure no unsafe conditions or practices exist. Slips, trips, and falls Sharp edges Swinging loads/gear adrift 	46 CFR 176.830		 Has applied for TWIC Accompanied by TWIC holder in secure areas Operator enters new hire personal info in HOMEPORT Notified via HOMEPORT that new hire has paged initial page shady. 	
7.12		Ensure proper ground tackle	46 CFR 184.300 46 CFR 184.10		 passed initial name check. Provision does not apply to CSO, VSO or individual hired to perform security duties 	
7.13		Ensure sailing and rigging	46 CFR 177.330	13.17	Security measures for restricted areas	33 CFR
Notes	:				 Secure areas protected Properly marked Control measures adequate Do not conflict with safety measures 	104.270 ISPS,Part A 7.2.4

Task 13: MTSA/ISPS Compliance (Continued)

Step	Action	Ref
13.9	Security Training for all other vessel Personnel	33 CFR 104.225 ISPS, Part A, 13.3
13.10	 Vessel Record Keeping Requirements Training Drills and exercises Breaches of security Change in MARSEC levels Maintenance, calibration, and testing of security equipment. Security threats Annual audit of the VSP Declaration of Security (DoS) Retained for Two years 	CFR 104.235 ISPS, Part A, 10
13.11	 MARSEC level coordination and implementation Proper MARSEC level MARSEC level at least at current port level 	33 CFR 104.240
13.12	Communications Vessel security personnel Facility National and local authorities Demonstrate communications operations consistent with the VSP 	33 CFR 104.245 ISPS, Part A 7.2.7
13.13	 Declaration of Security (DoS) Required for cruise ships or manned CDC bulk vessels and any vessel or facilities with which it interfaces. Valid (for MARSEC level and effective time period) Must have last 10 or continuous DoS reviewed at interval consistent with MARSEC level. Signed 	33 CFR 104.255 ISPS, Part A, 5.1

Task 8: Lifesaving Equipment

Step	Action	Ref
8.1	Inspect life preservers.	46 CFR 180.71 a
	 PFDs are USCG-approved PFDs are serviceable and in good repair 	
	□ Inflatable PFDs are serviced annually	
	PFDs are marked with vessel's name	46 CFR 185.604
	PFDs are correctly marked with retro-reflective	
	tape PFDs are correctly fitted with approved 	46 CFR 180.75
	serviceable lights (O/C only)	SOLAS III/7/3
	 Light batteries are in working order and not expired 	
	□ Each PFD is fitted with a whistle (SOLAS only)	
	□ Immersion suit	
8.2	Inspect life preserver stowage.	
	□ Life preservers readily accessible and distributed throughout accommodation spaces	46 CFR 180.78 (a)
	Stowage containers are not capable of being locked and when practical allow life preservers to float free	
	Overhead PFDs stowed for quick release	
	 If stowed more than 7 feet above deck, release must be operable from the deck (not applicable to existing vessels (OLD T)) 	46 CFR185.604 (f)
	Stowage space clearly marked with "Life Preservers," "Child or Adult," and quantity	\' <i>'</i>
	□ Child-size PFDs stowed separately	

Task 8: Lifesaving Equipment (Continued)

Step	Action	Ref
8.3	 Inspect work vests. Additional PFDs must be USCG approved Additional PFDs are in serviceable condition Inflatable PFDs serviced by an approved facility 	46 CFR 180.72 (b)
8.4	 Inspect work vest stowage. Stowed separately and in a manner so as not to be confused with passenger PFDs 	46 CFR 180.78 (b)
8.5	Verify that lifejacket donning placards are properly posted or available to the passengers.	46 CFR 185.516
8.6	 Examine ring lifebuoys and water lights. Appropriate number of USCG-approved ring life buoys on board Must be orange on ocean or coastwise route Vessel <26ft in length may carry 20" rings In serviceable condition Properly marked with vessel's name in block capital letters Properly marked with retro-reflective tape At least one fitted with approved water light Water lights are serviceable and batteries are replaced by their marked expiration date or if not marked, replaced annually Water light is attached with a lanyard at least 3 feet in length and secured around the body of the buoy If only one is carried, water light is to be attached to lanyard with a corrosion resistant clip to allow quick disconnect Stowage not permanently secured 	46 CFR 180.70 46 CFR 185.604 46 CFR 160.50 46 CFR 180.75
Notes		

Task 13: MTSA/ISPS Compliance (International Voyages Only)

Step	Action	Ref
13.1	Compliance documentationApproved Vessel Security Plan	33 CFR 104.120 ISPS, Part A, 9.1
13.2	• Approved by CG-543	33 CFR 104.130
13.3	EquivalentsApproved by CG-543	33 CFR 104.135
13.4	 Maritime Security (MARSEC) directive Proper safeguards Incorporated into VSP 	33 CFR 104.145
13.5	 Aware of responsibility and authority with regards to MTSA 	33 CFR 104.205
13.6	 Company Security Officer (CSO) Training / experience Valid TWIC See list of example questions 	33 CFR 104.210 ISPS, Part A, 11
13.7	 Vessel Security Officer (VSO) Training / experience Valid TWIC See list of example questions 	33 CFR 104.215 ISPS, Part A, 12
13.8	Company or vessel personnel with security duties • Training / experience • Valid TWIC • See list of example questions	33 CFR 104.220 ISPS, Part A, 13.3

• See list of example questions

Task 12: Pollution Prevention Systems

Step	Action	Ref
12.1	Verify oil pollution placard posted. (Vsl >26 ft in length)	33 CFR 155.450
12.2	 Verify garbage placard. (Vsl >26 ft in length) Prominent locations: readable by crew and passengers 	33 CFR 151.59
12.3	Examine marine sanitation device.	33 CFR 159.7
12.4	 Operable Labeled type I, II, or III (not required for type IIIs that store affluent at ambient air pressure and temperature) Verify bilges are free of debris and excessive amounts of oil. 	46 CFR 176.830 40 CFR 94 or
12.5	 MARPOL VI Compliance COI Endorsement for vessel on international voyage if less than 400 GT ITC 	40 CFR 94 or 1042 CG-543 Policy ltr 09-01
12.6	 Verify VGP compliance. Is the state of deck and work areas housekeeping adequate? Deck is free of clutter, garbage, fuel/oil spills? Are spill rails and drip pans in place and utilized? 	VGP Parts 2.1 and 2.2.1

Task 8: Lifesaving Equipment (Continued)

Step	Action	Ref
8.7	Verify number and type of survival craft.	46 CFR 180.200 (c)
8.8	 Inspect inflatable life rafts and inflatable buoyant apparatus (IBA). USCG-approved Meets approved capacity as noted on approval plate Properly equipped Has been serviced during the previous 12 months or immediately if container is damaged, or seals or straps are broken Marked with vessel's name and port of registry L/R-SOLAS A or B pack; IBA-per manufacturer's outfit 	46 CFR 180.175 46 CFR 180.200 NVIC 2-63
8.10	 Inspect life floats and buoyant apparatus. USCG-approved Has sufficient capacity as noted on approved label In serviceable condition Marked clearly with vessel's name and capacity Properly outfitted, pendants, painters, and lights Marked with retro-reflective tape 	46 CFR 180.200 46 CFR 180.175 NVIC 4-86 46 CFR 185.700 46 CFR 185.604 46 CFR 160.010-8 NVIC 1-83
8.11	Verify that lifesaving placards are posted. Inflatable survival craft placards 	46 CFR 185.518

Notes:

Task 8: Lifesaving Equipment (Continued)

Task 11: Electrical (Continued)

Step	Action	Ref	Step	Action	Ref
8.12	 Inspect rescue boats/rescue platforms. Marked with vessel name Capacity Retro-reflective tape 	46 CFR 180.210 46 CFR 185.604 NVIC 1-87 46 CFR 180.10- 35	11.09 E	 Inspect general electrical installation. If individual wires, rather than cable, are used in systems greater than 50 volts, the wire must be in conduit. 	46 CFR 183.340 46 CFR 183.05- 40
8.13	 Verify that a CG-approved rescue boat is provided for vessels >65 feet. Exemption: Vessel is sufficiently maneuverable, arranged and equipped to recover a helpless person from the water, and Recovery can be observed from the operating station, and Vessel does not routinely engage in operations 	46 CFR 180.210		 All cable and wire must have stranded copper conductors with sufficient current carrying capacity for the circuit in which they are used; Be protected from the weather; Be installed with metal supports spaced not more than 24 inches apart, and in such a manner as to avoid chafing and other damage. 	46 CFR 183.05- 45 46 CFR 183.05- 50 46 CFR 183.10- 20
8.14	 Verify that a rescue boat acceptable to the OCMI is carried on vessels ≤ 65 feet that: Carry passengers on open or partially enclosed decks Are designed, arranged, or engaged in operations that the vessel itself cannot serve as adequate rescue craft 	46 CFR 180.210		 Operationally test electrical apparatus, which operates as part of or in conjunction with a fire detection or alarms system installed on board the vessel, by simulating, as closely as practicable, the actual operation in case of fire; and Operationally test of all emergency electrical systems 	46 CFR 176.806 (g)
8.15	 Ensure rescue boat is: Small, lightweight boat, with built-in buoyancy Capable of being readily launched Easily maneuvered Of adequate proportion to take an unconscious person onboard without capsizing 	46 CFR 180.210		 A portable or temporary electric cord or cable must be constructed and used in compliance with the requirements of Sec. 111.60-13 in subchapter J of this chapter for a flexible electric cord or cable 	46 CFR 176.806 (h) 46 CFR 183.340 (r)
8.16	□ Ensure any repairs made to rescue boat. <u>Note</u> : If rescue boats are inflatable, ensure repairs are made in accordance with manufacturer's instructions and		11.10 E Notes:	Inspect over current protection.	46 CFR 183.380
Notes:	at a CG-approved servicing facility.				

Task 11: Electrical (Continued)

Step	Action	Ref
11.7	Inspect portable lighting.	46 CFR 183.430
11.8	 Test emergency lighting. Ensure each vessel has adequate emergency lighting fitted along the line of escape to the main deck from all passenger and crew accommodation spaces located below the main deck The emergency lighting required by paragraph (a) of this section must automatically actuate upon failure of the main lighting system. If a vessel is not equipped with a single source of power for emergency lighting, it must have individual battery powered lights that: Are connected to an automatic battery charger; and Have sufficient capacity for a minimum of 2 hours of continuous operation 	46 CFR 183.432 (a) 46 CFR 183.30 46 CFR 183.432 (b)

Task 8: Lifesaving Equipment (Continued)

Step	Action	Ref
8.17	□ Rescue platforms. <u>Note</u> : Vessels that are not required to carry a rescue boat may or may not be required to carry a rescue platform. If the vessel is configured in such a manner as to be able to recover a person from the water without a platform, no platform is required. It will be noted on the COI if the vessel is required to carry a rescue boat or a rescue platform.	46 CFR 180.210
8.18	Ensure adequate means are provided for transferring a victim from a rescue boat or platform to the deck of the vessel.	46 CFR176.808 (g)
8.19	 Inspect survival craft stowage. Ensure each survival craft is: Secured to vessel by a painter with a weak link Stowed in a float-free arrangement (hydrostatic release unit needed when tied down) Automatically inflates where applicable Readily accessible to crew for quick launch Fully equipped as required Sheltered from breaking seas and fire damage Stowed to prevent shifting 	46 CFR 180.137 46 CFR 180.130 46 CFR 180.150

Notes:

Task 8: Lifesaving Equipment (Continued)

re hydrostatic release units (HRUs) used in free arrangements are CG-approved.	46 CFR 160.062	11.3		Ensure all metallic enclosures and frames	
—	46 CFR 160.062 11.3 (cont)			of electrical equipment are permanently grounded to the hull on a metallic vessel.	ently 46 CFR 183.372 vessel. (a)
Then they must be				On a nonmetallic vessel, the enclosures	
osable • Serviced annually.				and frames of electrical equipment must be bonded together to a common ground by a	
 Installed with body of HRU not making contact with survival craft or any other structure. 				normally non-current carrying conductor. Metallic cases of instruments and	
• Not expired.				transformers must be grounded.	
	NVIC 4-86			Ensure that on a nonmetallic vessel, where a ground plate is provided for radio equipment, it must be connected to the common ground.	46 CFR 183.372 (b)
requires lifting more than 1 vertical foot to launch.		11.4			46 CFR 183.392
		11.5			
				Inspect all cable as far as practicable without undue disturbance of the cable or electrical apparatus	46 CFR 176.806 (a)
				Test all circuit breakers by manual operation;	46 CFR 176.806 (b)
				of fuses are suitable for the service	46 CFR 176.806 (c)
		11.6	🗆 Inspe	ect lighting fixtures.	46 CFR 183.410 46 CFR 183.30- 1
		Notes:			
1	craft or any other structure. Not expired. Installed right side up. Installed right side up.	craft or any other structure. ole • Not expired. • Installed right side up. wal craft weighing more than 200 lb that res lifting more than 1 vertical foot to	craft or any other structure. ole • Not expired. • Installed right side up. rere launching device is provided for any val craft weighing more than 200 lb that res lifting more than 1 vertical foot to ch. NVIC 4-86 11.4 11.5	craft or any other structure. ble • Not expired. • Installed right side up. ure launching device is provided for any val craft weighing more than 200 lb that res lifting more than 1 vertical foot to ch. NVIC 4-86 11.4 Inspiration of the structure. 11.5 Inspiration of the structure. 11.6 Inspiration	craft or any other structure. ble • Not expired. • Installed right side up. rre launching device is provided for any val craft weighing more than 200 lb that res lifting more than 1 vertical foot to the common ground. 11.4 Inspect radios fused at the main panel (INSPECT RADIO POWER SUPPLY). 11.5 Inspect radios fused at the main panel (INSPECT RADIO POWER SUPPLY). 11.5 Inspect all cable as far as practicable without undue disturbance of the cable or electrical apparatus Image: Inspect fuses including ensuring the ratings of fuses are suitable for the service intended; 11.6 Inspect lighting fixtures.

Task 11: Electrical (Continued)

Task 11: Electrical (Continued)

Action Ref Step □ Inspect switchboards and distribution panels. 46 CFR 183.330 11.3 □ Ensure location is dry, adequately 46 CFR 183.380 ventilated, totally enclosed, has drip shield, non-conducting mat or grating, and over 46 CFR 183.376 current (a) □ Check that if a grounded distribution system is provided, there must be only one connection to ground, regardless of the number of power sources. This ground connection must be at the switchboard or at the common ground plate, which must be accessible □ Ensure each propulsion, power, lighting, or 46 CFR 183.376 distribution system having a neutral bus or (b) conductor must have the neutral grounded □ The neutral bus must be permanently 46 CFR 183.376 connected to the neutral bus on the main (C) switchboard: □ No switch, circuit breaker, or fuse in the neutral conductor of the bus-tie feeder connecting the emergency switchboard to the main switchboard □ Ensure on a metallic vessel, a grounded 46 CFR 183.376 alternating current system must be (d) grounded to the hull. On a nonmetallic vessel, the neutral must be connected to the common ground, except that aluminum grounding conductors must not be used. Notes:

Task 8: Lifesaving Equipment (Continued)

Step	Action	Ref
8.22	 Ensure stowage of each life float and buoya apparatus also meets each of the following: Secured with a CG-approved weak link (160.073) that is of proper strength for the capacity of the survival craft and that is attach at one end to the painter and at the other end the vessel 	(e)(1) 46 CFR 180.175 (e)(3)(ii) ned
	 Means to secure weak link to vessel must have breaking strength at least equal to strength of painter; if synthetic, be dark colored or UV resistant; and if metal, be corrosion resistant If painter attachment fitting is not provided, a means to attach the painter must be provided a wire or line that encircles the device's body; not slip off; has breaking strength that is at least the breaking strength of the painter; and is dat colored or UV resistant 	ve a f l by ; will ast
	 If a single painter is used for 2 or more life floats/buoyant apparatus, ensure that: The total weight of the devices does not exceed 400 lb. 	:
	 Each device is attached to the painter w a line long enough (and of differing leng to ensure devices can float without contacting one another and that each device can be launched independently o the other(s). 	ths)
	 The strength of the weak link and the breaking strength of the painter (1,500 ll or, for 50 and more persons - 3,000 lb) i determined by the combined capacity of devices attached to that painter. 	S
	 If stowed in tiers, ensure tiers are not me than 4' high and that spacers are used between devices. 	ore

Task 8: Lifesaving Equipment (Continued)

 8.23 Inspect survival craft embarkation arrangements. Ensure a CG-approved launching appliance (160.163) or marine evacuation system (160.175) is provided for each inflatable life raft and IBA when either: The embarkation station is on a deck more than 15' above the waterline; OR The craft is to be boarding prior to being placed in the water Ensure a CG-approved embarkation ladder (160.017) is provided at every embarkation station whose deck is more than 10' above the waterline. Ensure ladder is in satisfactory condition (lines & steps not excessively worn or rotted, steps securely fitted to lines, etc.) and securely fastened to vessel (attachment points and shackles not wasted) Ensure deck area in vicinity of ladder is clear of any obstructions that may interfere with boarding or launching of survival craft 	Step		Action	Ref
 15' above the waterline; OR The craft is to be boarding prior to being placed in the water Ensure a CG-approved embarkation ladder (160.017) is provided at every embarkation station whose deck is more than 10' above the waterline. Ensure ladder is in satisfactory condition (lines & steps not excessively worn or rotted, steps securely fitted to lines, etc.) and securely fastened to vessel (attachment points and shackles not wasted) Ensure deck area in vicinity of ladder is clear of any obstructions that may interfere with 	8.23	_	Ensure a CG-approved launching appliance (160.163) or marine evacuation system (160.175) is provided for each inflatable life raft	(a) 46 CFR 180.150
			 15' above the waterline; OR The craft is to be boarding prior to being placed in the water Ensure a CG-approved embarkation ladder (160.017) is provided at every embarkation station whose deck is more than 10' above the waterline. Ensure ladder is in satisfactory condition (lines & steps not excessively worn or rotted, steps securely fitted to lines, etc.) and securely fastened to vessel (attachment points and shackles not wasted) Ensure deck area in vicinity of ladder is clear of 	(c) 46 CFR 185.700 (a) 46 CFR 185.700

Task 11: Electrical

Step	Action	Ref
11.1	Inspect independent generators.	46 CFR 183.310 (b)
	Ensure that when a ship service generator driven by a propulsion engine is used as a source of electrical power, a vessel speed change, throttle movement or change in direction of the propeller shaft rotation must not interrupt power to any of the loads specified in paragraph (a)(1) of this section.	
11.2	 Inspect batteries and alternator (if required). Ensure a vessel with batteries of adequate capacity to supply the loads specified in paragraph (a)(1) of this section for three hours, and a generator or alternator driven by a propulsion engine, complies with the requirement in paragraph (a)(1) of this section. 	46 CFR 183.310 (a)(2)
	 Inspect of batteries for condition and security of stowage 	46 CFR 176.806 (f)
	All batteries must be located as high above the bilge as practicable, secured to protect against shifting with the roll and pitch of the vessel, and free from exposure to water splash or spray	46 CFR 183.350
	All batteries must be mounted in trays lined with, or constructed of, a material that is resistant to damage by the electrolyte	46 CFR 183.350 (d)
	 Battery charger with ammeter connected to charging circuit 	46 CFR 183.05- 20

Notes:

Step	Action	Ref
10.43	Ensure that a vessel of at least 26 feet in length, has a visual and audible alarm at the operating station to indicate a high water level in each of the normally unmanned spaces Ensure that a vessel of at least 26 feet in length	46 CFR 182.530 (a)
	has been provided with individual bilge lines and bilge suctions for each watertight compartment, the arrangement of the vessel is such that ordinary leakage may be removed from this compartment by the use of a hand portable bilge pump or other equipment, and such equipment is provided.	46 CFR 182.510 (a) 46 CFR 182.25- 5(d)
	 Ensure a bilge pipe in a vessel of not more than 65 feet in length must be not less than 1 inch nominal pipe size. A bilge pipe in a vessel of more than 65 feet in length must be not less than 1.5 inches nominal pipe size. A bilge suction must be fitted with a suitable strainer having an open area not less than three times the area of the bilge pipe. 	46 CFR 182.510 (b)
10.44	Ensure all vital systems piping is appropriate and meet subpart F	46 CFR 182.710 46 CFR 182.40- 5

Task 8: Lifesaving Equipment (Continued)

Step	Action	Ref
8.24	 Inspect launching appliances (davits & winches). Ensure structural integrity of any launching appliance (no excess wastage, no fractures, all fasteners tight, etc.). Ensure falls on launching appliances have been renewed at least every 5 years or when deteriorated (excess wear, flat spots, corrosion, broken wires, fishhooks, etc.). Ensure falls have been end for ended at least every 30 months. Ensure date of fall renewal/end for ending is recorded on a corrosion resistant tag affixed to the fall. 	46 CFR 185.700 (a) 46 CFR 176.808 (a)(1) 46 CFR 185.704 (b) 46 CFR 185.704 (a) 46 CFR 185.704 (c)
8.25	Conduct operational test of rescue boat (normally done in conjunction with man overboard drill).	46 CFR 176.808 (a)(1) & (g) 46 CFR 185.520 (d) 46 CFR 185.720

Notes:

Task 9: Fire Protection Systems

Step		Action	Ref
9.1		Verify fire detection system is installed in the required spaces.	46 CFR 181.400
		 Propulsion machinery space 	
		 A space containing an internal combustion engine of more than 50 hp 	
		Space containing an oil-fired boiler	
		 Space containing machinery powered by gasoline or other fuel with a flash point of 110°F or lower 	
		 Space containing a fuel tank for gasoline or other fuel with a flash point of 110°F or lower 	
		□ A paint locker	
		 A storeroom containing flammable liquids (including liquors of 80 proof or more, packed in individual containers of 2.5 gal or more) 	46 CFR 181.400 (a)(8) 46 CFR 181.400 (f)
		An enclosed vehicle space	
9.2		Verify fire detection has been serviced or tested annually.	46 CFR 176.810 (a)(7)
9.3		Verify smoke detection systems are installed in the required areas (overnight passenger accommodation spaces).	46 CFR 181.400 (e) 46 CFR 181.400 (c) 46 CFR 76.27
9.4	□ de [:]	Verify proper operation of fire and smoke tectors.	46 CFR 176.810(a)(7) 46 CFR 181.450

Task 10: Machinery and Auxiliary Machinery (Continued)

Step	Action	Ref
10.40	Ensure a drip pan fitted with a flame screen is installed under each gasoline strainer.	46 CFR 182.455 (b)(6)
10.41	Ensure no outlets to permit drawing of fuel below deck are present in gasoline fuel lines.	46 CFR 182.455 (b)(8)
10.42	Ensure flexible hose used for alcohol-gasoline blend fuels meets the permeability requirements of 33 CFR 183, subpart J (SAE Class 1 or Class 2 hose or USCG A1, A2, B1 or B2 hose).	46 CFR 182.720 (e)(3)(iv) 46 CFR 182.455 (g) 46 CFR 182.20- 30 (d)
10.43	Operational test of all overboard discharge and intake valves and watertight bulkhead pipe penetration valves;	46 CFR 176.804 (g)
	Operational test of the means provided for pumping bilges; and (i) Test of machinery alarms including bilge high level alarms.	46 CFR 176.804 (h)
	Ensure vessel has been provided with bilge	
	pumps in accordance with Table 182.520(a). If there is a portable hand bilge pump must be: □ Capable of pumping water, but not	46 CFR 182.520 (a)
	necessarily simultaneously, from all watertight compartments; and	46 CFR 182.520 (b)
	 Provided with suitable suction hose capable of reaching the bilge of each watertight compartment and discharging overboard. 	46 CFR 182.25- 5(d)

Step Action	Ref
 10.35 Ensure all gasoline engines (except outboard engines) are fitted with an acceptable means of backfire flame control as follows: 	46 CFR 182.415 (c)
A clean backfire flame arrester complying with, and marked, SAE J-1928 or UL 1111 secured to the air intake with a flametight connection	
connection An engine air and fuel induction system that provides adequate protection 	
 equivalent to a backfire flame arrester An arrangement of the carburetor or engine air induction system that will 	
disperse any flames to the atmosphere outside the vessel in a safe manner, or □ An air induction system approved,	
marked, and tested under 46 CFR 162.043	
10.36 Ensure gasoline is stored only in fuel tanks that are independent of the hull.	46 CFR 182.435 (a)
10.37 Ensure fill pipes and sounding pipes for gasoline fuel tanks extend to within one-half of their diameter from the bottom of the tank.	46 CFR 182.445 (e)
10.38 Ensure valves in gasoline fuel lines are of a suitable nonferrous type.	46 CFR 182.455 (a)(4)
10.39 Ensure all gasoline fuel lines are connected at the top of the tank and run at or above the level of the tank top to a point as close as possible to the engine connection (fuel lines may be run below the level of the tank top if fitted with antisiphon protection).	46 CFR 182.455 (b)(1)
Notes:	

Task 9: Fire Protection Systems (Continued)

Step	Action	Ref
9.5	 Inspect fixed gas fire extinguishing systems. Complete operating instructions Verify cylinders are weighted Verify cylinders are hydro-tested 	46 CFR 176.810 46 CFR 185.612 NVIC 6-72 CH 1 NVIC 3-95
	 Testing or renewal of flexible connections/hoses (47 CFR 147.65) 	46 CFR 176.180 (a)(5)
	 Must have manual ventilation closures on protected space 	46 CFR 182.15- 45
	 Controls and valves must be located outside the protected space 	46 CFR 182.20- 45
	 Must have local manual controls at the storage cylinders 	46 CFR 181.410 46 CFR 182.465
	 Must have remotes in a break glass enclosure 	(h) 46 CFR 181.20-
	 Piping Pre-engineered – 	35
	automatic shut down for power ventilation	46 CFR 181.410 (b)
	 properly installed as per manufacture instruction 	
	light to indicate dischargeaudio alarm	46 CFR 181.410 (d)
	 means to reset only one pre-engineered system per protected space 	46 CFR 181.420 46 CFR 181.20

Task 9: Fire Protection Systems (Continued)

Step	Action	Ref
9.6	Verify fixed gas fire extinguishing system has been serviced or tested annually.	46 CFR 176.810 (b)(2)
9.7	 Portable and semiportable fire extinguishers Annual service IAW NFPA 10 Cylinders hydrotested Testing or renewal of flexible connections/hoses (47 CFR 147.65) Required number and location 	46 CFR 176.810 NVIC 6-72 CH 1 46 CFR 176.180 (a)(5) 46 CFR 181.500
9.8	Inspect fire main and hydrants.	46 CFR 181.310
9.9	□ Inspect fire axes.	46 CFR 181.15 46 CFR 181.600 46 CFR 181.15- 10
9.10	□ Inspect fire buckets of 2.5 gals (if power fire pump not required).	46 CFR 181.610
9.12	□ Inspect fire pump.	46 CFR 181.300 46 CFR 181.10
Notes	5	

Task 10: Machinery and Auxiliary Machinery (Continued)

Step	Action	Ref
10.35	Inspect the following on vessels equipped with GASOLINE-powered internal combustion engines ONLY:	46 CFR 182.410 (a)
	Ensure electrical equipment in spaces	
	containing machinery powered by and fuel tanks for gasoline are explosion-proof,	
	intrinsically safe, or ignition protected for use in	46 CFR 182.410 (c)
	a gasoline atmosphere. Ensure enclosed spaces containing machinery	46 CFR 182.480 (a)
	powered by gasoline are equipped with a	(4)
	flammable vapor detection system.	
	Ensure flammable vapor detection system meets UL Standard 1110 "Marine	
	Combustible Gas Indicators"	46 CFR 182.480
	Ensure system is operational for at least 30 seconds prior to engine startup and	(c)
	continues sensing the entire engine is	46 CFR 182.480
	running	(d)
	 Ensure system provides a visual and audible alarm at the operating station 	46 CFR 182.480
	Ensure a system sensor is located in the	(e)
	lowest part of a machinery space and a fuel	46 CFR 182.480
	tank space above expected bilge water levels	(b)&(h)
	□ Ensure that system operating instructions	46 CFR 182.415
	are posted at the operating station and that the system's operations and maintenance	(a)
	manual is onboard	
	Ensure all carburetors (except downdraft types) are equipped with an integral or externally fitted	
	drip collector of adequate capacity.	
Notes:		

Step	Action	Ref
10.29	Ensure a loop of copper tubing or flexible hose is installed in the fuel supply line where it connects to the engine.	46 CFR 182.455 (b)(5)
10.30	 Ensure that a suitable metal marine type strainer is fitted in the fuel supply line in the engine compartment and meets the following: Is leak free; and Fuel filters fitted with bowls of other than steel construction (such as Raycor filter with clear bowls) must be approved by COMDT, be protected from mechanical damage, and be fitted with a flame shield if specified when approved by COMDT. 	46 CFR 182.455 (b)(6) 46 CFR 182.20- 40(b)(5) 46 CFR 182.15- 40(b)(5)
10.31	Ensure any accessory installed in the fuel line is independently supported.	46 CFR 182.455 (b)(7)
10.32	Ensure any valves for removing water or impurities from diesel fuel water traps or strainers are fitted with caps or plugs.	46 CFR 182.455 (b)(9)
10.33	Ensure portable fuel tanks are not used except when used for portable dewatering pumps and outboard engines.	46 CFR 182.458 (a)
10.34	Ensure portable fuel tanks and any related fuel lines and accessories meet ABYC H-25 standards.	46 CFR 182.458 (b)

Task 9: Fire Protection Systems (Continued)

Step		Action	Ref
9.13		Test pump (all vessels)	46 CFR 181.300
		Vessel < 65ft & > 49 passengers & vessels > 65ft	
		No excessive leaking	
		Manual priming not required	
		Pump is operable from main operating station and locally at the pump.	
		 Meets required capacity 50 gpm and pressure of 60psi 	
		Pump must have a pressure gauge	
9.13		Inspect fire hoses and nozzles.	46 CFR 181.320
	□ 65f	Vessel < 65ft & > 49 passengers & vessels > t	
		Commercial lined fire hose (UL 19)	
		□ 1.5 inches in diameter & 50 ft in length	
		 Fittings of brass or other suitable material (NFPA) 	
		 Nozzle must be approved under 46 CFR 162.027 or type recognized by Commandant. 	
		Vessel < 65ft & < 49 passengers	
		May have a garden type hose > .0625 inches in diameter and >25 ft but < 50 ft	
		□ Fittings must be corrosion resistant material	
		□ Nozzle must be corrosion resistant and be	
		able to switch from stream to spray.	

Notes:

Task 9: Fire Protection Systems (Continued)

9.14 Test fire hoses using installed fire pump. 46 CFR 176.810 Piping 46 CFR 181.310 Valves 46 CFR 181.320 Fittings 46 CFR 181.320 9.15 Inspect structural fire protection. 46 CFR 177.405 Noncombustible trim 46 CFR 177.405 Inspect paint lockers. 46 CFR 177.405 Constructed of steel or equivalent material Protected by fire extinguishing system 9.17 Inspect mergency outfits and equipment (SOLAS only). SOLAS II-2/10 Vessel provided with required number of outfits Spare charges for breathing apparatus are provided Storage locations are easily accessible, permanently and clearly marked, and separated as wide as practicable. Storage locations are easily accessible, permanently and clearly marked, and separated as wide as practicable.	Step		Action	Ref
 Noncombustible trim Fire-resistant furnishing 9.16 Inspect paint lockers. Constructed of steel or equivalent material Protected by fire extinguishing system 9.17 Inspect emergency outfits and equipment (SOLAS only). Vessel provided with required number of outfits Spare charges for breathing apparatus are provided Storage locations are easily accessible, permanently and clearly marked, and separated as wide as practicable. 	9.14		□ Piping □ Valves	46 CFR 181.310
 9.17 Constructed of steel or equivalent material Protected by fire extinguishing system 9.17 Inspect emergency outfits and equipment SOLAS II-2/10 (SOLAS only). Vessel provided with required number of outfits Spare charges for breathing apparatus are provided Storage locations are easily accessible, permanently and clearly marked, and separated as wide as practicable. 	9.15		□ Noncombustible trim	
 Interpret of the second second	9.16		Constructed of steel or equivalent material	46 CFR 177.405
Notes:	9.17		 Inspect emergency outfits and equipment (SOLAS only). Vessel provided with required number of outfits Spare charges for breathing apparatus are provided Storage locations are easily accessible, permanently and clearly marked, and 	SOLAS II-2/10
	Notes	:		

Task 10: Machinery and Auxiliary Machinery (Continued)

Step	Action	Ref
10.26	Ensure no cock-type valves are in fuel lines except for the solid bottom type.	46 CFR 182.455 (b)(3) 46 CFR 182.15- 40(a)(5) 46 CFR 182.20- 40(a)(4)
10.27	 Ensure all fuel lines are accessible for inspection, protected from mechanical injury, and secured against excessive movement and vibration. Ensure fuel line securing straps are of soft, nonferrous metal which have no sharp edges and are insulated to protect against corrosion 	46 CFR 182.455 (b)(3)
	 Ensure fuel lines passing through bulkheads are protected from damage by 	
10.28	 close fitting ferrules or stuffing boxes Ensure manually operated shutoff valves are installed in the fuel supply lines at the fuel tank connection and the engine end of the fuel line. □ Ensure that the shutoff valve at the fuel tank connection (also known as the emergency fuel shutoff valve) can be manually operated from outside the compartment in which the valve is located. □ If the handle of the emergency fuel shutoff valve is located inside the machinery space, it must be located so operator does not have to reach more than 12 inches into 	46 CFR 182.455 (b)(4) 46 CFR 182.15- 40(b)(3) 46 CFR 182.20- 40(b)(3)
	 space and must be shielded from flames. Ensure electric solenoid shutoff valves are used only if used in addition to the manual valves. Ensure remote fuel shutoff stations are marked indicating direction of turn 	46 CFR 185.608 46 CFR 185.30- 20
Notes:	marked indicating direction of turn	

Step	Action	Ref
10.25	Inspect fuel piping as follows:	
	Ensure fuel lines are of one of the following materials:	46 CFR 182.455
	 Annealed tubing of copper, copper-nicke or nickel-copper having wall thickness of least 0.035 inches; or 	
	For diesel fuels, piping which provides equivalent safety such as seamless stee pipe or tubing may be used; or	46 CFR 182.455 (a)(1)(iii)
	 For diesels fuels on aluminum hulled vessels, aluminum piping of at least schedule 80 may be used. 	
	 Flexible hose meets the following requireme Hose meets SAE J-1942 standards and 	nts: 46 CFR 182.720 (e)
	has end fittings that comply with SAE J-	46 CFR 182.40
	1475 standards which have been installeIAW the manufacturer's instructions.□ Hose runs are visible, easily accessible,	(e)(1)
	protected from mechanical damage, and not penetrate watertight decks or bulkheads	l do 46 CFR 182.720 (e)(3)
	☐ Hose used only for the purpose of flexibi in lengths ≤ 30 inches and subject to pressures ≤ 5 psig (normally used to connect metallic fuel pipe runs to the engine to eliminate effects of engine vibration) may meet the following requirements:	46 CFR 182.720 (e)(3)(v)
	Suitable compression-type connection fittings may be used or hose may be installed with two hose clamps at each e of the hose; and	nd
	 USCG Type A1, A2, B1, or B2 may be accepted instead of hose meeting SAE Standard J-1942 	
Notes:		

Task 9: Fire Protection Systems (Continued)

Step		Action	Ref
10.1	Ins	pect propulsion machinery.	
		Ensure propulsion machinery is suitable and capable of operating at constant marine loads	46 CFR 182.200 (a)
		Ensure propulsion machinery has not been changed	46 CFR 176.702
		out since last inspection (change in center of gravity and weight may adversely affect stability).	46 CFR 176.402 (d)(3) & (4)
		Ensure all engines have at least two means for stopping the engine(s), one of which may be the shutoff valves required in fuel lines. Ensure there is a reliable means of shutting down a propulsion engine at the main pilothouse control	46 CFR 182.200 (b) 46 CFR 184.620
			(a)
			46 CFR 175.10- 29
		Ensure machinery guards are installed over exposed gears, belts or other rotating machinery	46 CFR 184.620 (b)
		gears, bets of other rotating machinery	46 CFR 177.960
			46 CFR 177.35- 15
10.2		Inspect internal combustion engines (diesel and gasoline powered).	
		Ensure all starting motors, generators, and spark-producing devices are mounted as high	46 CFR 182.410 (a)
		above bilges as practicable	
		Ensure gauges for rpm, jacket water discharge	46 CFR 182.410 (b)
		temperature, and lubricating oil pressure are provided and are readily visible at the operating	46 CFR 182.15- 5
		station (rpm gauge not required for existing vessels)	46 CFR 182.20- 5
		Ensure all flexible hoses are clamped at each	
		end with two corrosion-resistant metal hose clamps where practicable (a single clamp is	46 CFR 182.410 (d)
		allowed when pipe end is expanded or beaded) • Hose meets SAE J-1942 standards	46 CFR 182.720
		and has end fittings that comply with SAE J-1475 standards which have	
		been installed IAW the manufacturer's	
		instructions.	<u> </u>

Step	Action	Ref
10.22	Ensure discharge ends of vent pipes terminate outside of vessel, either on the hull exterior or in U-bends as high above the weather deck as possible.	
	Ensure discharge ends of vent pipes are fitted with a flame screen or flame arrester of such design and size as to not reduce the net cross sectional diameter of the vent pipe and to permit cleaning or renewal (flame screens must consist of a single screen of corrosion resistant wire of at least 30 x 30 mesh).	46 CFR 182.450 (e)
10.23	 Verify when flexible hose is used in the vent pipe: Hose has high resistance to salt water, petroleum oils, heat, and vibration. Hose overlaps metal pipe ends at least 1-1/2 times the pipe diameter and is secured with 2 hose clamps. 	46 CFR 182.450 (g)
10.24	Vent pipes are installed with an upward gradient in a manner to prevent fuel from being trapped in the line.	46 CFR 182.450 (h)

Notes:

Task 10: Machinery and Auxiliary Machinery (Continued)

Step	Action	Ref
10.17	Ensure all fuel tanks are electrically bonded to a common ground.	46 CFR 182.440 (b)(4) 46 CFR 182.15-
10.18	Ensure there is a means to accurately determine the amount of fuel in each tank.	25(b)(4) 46 CFR 182.445 (b)
10.19	Ensure fill pipes and sounding pipes are so arranged that overflow of liquid or vapor cannot escape to the inside of the vessel.	46 CFR 182.445 (d)
10.20	Ensure all fuel tank fill pipes and sounding pipes are suitably marked.	46 CFR 182.445 (e)
10.21	 Each fuel tank is fitted with a vent pipe connected to its highest point (tanks without a vent line must be inspected as a pressure vessel). □ Ensure net cross sectional area of vent pipes are at least: □ .625 inches if fill pipe terminates at top of the tank; □ .75 inches if fill pipe extends into tank; or □ The cross sectional area of the fill pipe if the tank is filled under pressure. □ Ensure tank space is properly vented □ >500 cubic feet = gooseneck >2.5 inches 	46 CFR 182.440 (c)(3) 46 CFR 182.450 (b)&(c) 46 CFR 182.450 (d) 46 CFR 182.450 (e) 46 CFR 182.450 (e) 46 CFR 182.15- 35 46 CFR 182.460
	<500 cubic fee = gooseneck >1.5 inches	46 CFR 182.460 46 CFR 182.470 46 CFR 182.15- 45 46 CFR 182.20- 50

Step	Action	Ref
10.3	Inspect engine cooling system as follows: Ensure the engine head, block, and exhaust manifold are cooled by water from a pump that	46 CFR 182.420 (a)(1)
	operates whenever the engine operates. Ensure a suitable strainer is installed on the raw water intake line of the cooling system.	46 CFR 182.420 (a)(2)
	On vessels \leq 65 ft and carrying \leq 12 passengers, a propulsion or auxiliary gasoline engine may be air cooled if in compliance with ABYC P-4.	46 CFR 182.420 (c)&(d)
	An auxiliary gasoline engine may be air cooled if it is installed on an open deck and has a self- contained fuel system.	46 CFR 182.420 (d)(1)
	A diesel engine may be air cooled or employ an	46 CFR 182.420 (e)
	air cooled jacket water radiator when sufficient ventilation is available, or is installed on vessels \leq 65 ft and carrying \leq 12 passengers and is in compliance with ABYC P-4.	46 CFR 182.465 (b)
10.4	Ensure keel coolers are provided with a shutoff valve where the cooler penetrates the hull (not required for integral keel coolers).	46 CFR 182.422 (b)
	Ensure all piping outboard of the shutoff valves is at least Schedule 80 and that any flexible hoses used at the machinery connections is	46 CFR 182.422 (c)&(d)
	approved hose and double hose clamped Ensure all integral keel coolers are fabricated with material of the same thickness and quality of the hull using full penetration welds and with a slope at each end not greater than 4 to 1.	46 CFR 182.422 (e)

Step	Action	Ref
10.5	 Inspect engine exhaust systems as follows (as an alternative, vessels may instead comply with ABYC P-1): Ensure dry exhaust pipes are clear of and suitably insulated from combustible materials and suitably insulated to prevent injuries. Ensure dry exhaust pipes installed on wood and FRP boats are installed IAW ABYC P-1 (designed to arrest sparks; metallic 	46 CFR 182.425 (c) 46 CFR 182.430 (k) 46 CFR 182.425 (a)(1) & (2)(v) 46 CFR 177.405 (b)
10.6	 connections are flanged, threaded, or welded; and flexible sections are seamless stainless steel). Ensure horizontal dry exhaust pipes: Do not pass through living or berthing spaces. Terminate above the deepest load waterline. Are arranged to prevent entry of cold water from rough or boarding seas (i.e., flaps installed over exhaust outlet). Are constructed of corrosion-resisting 	46 CFR 182.425 (a)(2)

Are constructed of corrosion-resisting material at the hull penetration.

Task 10: Machinery and Auxiliary Machinery (Continued)

Step	Action	Ref
10.16	Ensure independent fuel tank(s) has not been replaced with a different sized tank or relocated since last inspection (change in center of gravity and weight may adversely affect stability).	46 CFR 176.702 46 CFR 176.402 (d)(3) & (4)
	Ensure fuel tank(s) is free of excessive corrosion, that no fittings are leaking, that independent fuel tanks are properly secured in place to prevent movement, and that tank is insulated from braces and supports by a nonabrasive and nonabsorbent material. When the structural integrity of a fuel tank is in question, ensure the tank is replaced or, as an alternative, witness a satisfactory hydrostatic (use liquid only, not air) pressure test of the tank to 5 psig or $1-\frac{1}{2}$ times the max pressure head the tank may be subjected to, whichever is greater.	46 CFR 176.804 (d) 46 CFR 182.440 (b)(3) 46 CFR 176.804 (c)(1)

Step		Action	Ref
10.15		Conduct tests & inspections of UNFIRED	46 CFR 176.812
		pressure vessels IAW 46 CFR 61.10. Complete external and internal visual	46 CFR 182.15- 25(b)(4)
	_	inspection at least every 5 years, except:	46 CFR 61.10-5
		and II pressure vessels (see 46 CFR table	(b)
		54.01-5(b)) with a volume of <5 cu ft which do not contain hazardous materials and are stamped with either the ASME "U" or "UM"	46 CFR 54.01-5 (c)(3)
		symbols	46 CFR 61.10-5
		Complete hydrostatic test (water, not air) if visual inspection reveals defect which may effect safety of pressure vessel. Test pressure	(b) (3)
		shall be 1-1/2 times the vessel's MAWP	46 CFR 61.10-5 (i)
_		settings at least twice in 5 years and not more than every 3 years	46 CFR 54.15-
			10 (a)
		than the vessel's MAWP	46 CFR 54.15- 10 (g)

Service	Working Pressure	Relief Valve Setting	Date Tested or Examined

Notes:

Task 10: Machinery and Auxiliary Machinery (Continued

Step	Action	Ref
10.7	Ensure that exhaust pipe systems cooled by water are:	
	Provided with cooling water obtained from the engine cooling system or from a	46 CFR 182.425 (b)(1)
	 separate engine driven pump. Fitted so that cooling water is injected into the exhaust system as close as possible to the engine exhaust manifold and so that water passes through the entire length of the exhaust pipe. 	46 CFR 182.425 (b)(2)
	□ Fitted with insulation or be water-jacketed between the exhaust manifold and the	46 CFR 182.425 (b)(3)
	 point of cooling water injection. Either water-jacketed or insulated, if a vertical exhaust pipe, to ensure no water is 	46 CFR 182.425 (b)(4)
	 mixed with exhaust gases. Provided with a suitable warning device, visual or audible, installed at the operating station to indicate any reduction in water flow when the cooling water is provided from a source other than the engine cooling water system. Provided with a suitable strainer in the intake line. 	46 CFR 182.425 (b)(5) 46 CFR 182.15- 15 (b)(5) 46 CFR 182.425 (b)(6) 46 CFR 182.430 (b) 46 CFR 182.15- 20 (a)
10.8	Ensure there are two independent means to control speed and direction of rotation for each propulsion engine (not required for vessels with multiple propulsion engines with independent control for each engine).	46 CFR 184.620 (a)

				asn	10. Machinery and Auxinary Machinery (C
Step	Action	Ref			
10.09		46 CFR 184.602	Step		Action
	communications from the operating station to the location of the means to control the engine (not required for multi-engine vessels with pilothouse controls for each engine).	(a)	10.11		Inspect auxiliary machinery. Ensure heating boilers are tested or examined every 3 years Ensure water heaters comply with 46 CFR
C	Two-way communications may be satisfied with handheld portable radios or, if locations are sufficiently close together, with direct voice	46 CFR 184.602 (d) & (e)			Parts 53 & 63 except: Electric water heaters rated at not more than 100 psi and 250°F are
	communications (test while underway at full power).				acceptable if: □ Capacity ≤ 120 gallons;
0.10 [Ensure machinery and boilers for steam and electrically propelled vessels comply with subchapter F (Marine Engineering) and subchapter J (Electrical Engineering).	46 CFR 182.220 (b)			 □ Heat input ≤ 200,000 Btu per hour; □ UL listed (UL 174 or UL 1453); AND □ Protected by pressure-temperature relief device
			10.12		Ensure water heaters are installed and secured from rolling and movement.
			10.13	Insp	ect boilers.
			10.14		Ensure machinery of steam or gas turbine type, auxiliary boilers, and heating boilers comply with subchapter F (Marine Engineering) Verify boilers including associated piping and fittings meet applicable requirements of subchapter "F". Inspect boiler safety valves. Ensure no flex hose is used from the F/O pump to the burner. Test boilers Ensure unfired pressure vessels comply with subchapter F (Marine Engineering).
lotes:					
			Notes:		

Ref

46 CFR 182.310

46 CFR 182.310

46 CFR 182.320 (a) & (b)

46 CFR 182.320

46 CFR 182.320

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46 CFR 61.15-5 NVIC 1-71 46 CFR 61.05-

46 CFR 61.05-

46 CFR 182.330

NVIC 11-92

(C)

(a)

(C) 46 CFR 182.310(c)

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