USCGC BLUE SHARK (WPB 87360)

SPECIFICATION FOR DOCKSIDE REPAIRS

FY2027

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(Rev-0, 22 May 2026)

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REVISIONS RECORD

This page is used to record specification revisions, which may have occurred subsequent to a Revision 0 (Rev-0) package. Information listed is intended to provide contractors and field unit personnel a means to ensure all the current specification revision pages are present when reviewing or utilizing this specification package.

DATE	REV#	WORK ITEM#	CHANGES MADE

NOTE : All work item and paragraph numbers listed above for a given revision correspond to same numbers in the previous revision. This revised specification is self-contained with all of the above listed changes incorporated.

CONSOLIDATED LIST OF REFERENCES

The below-listed documents form a part of this specification to the extent specified herein. Approval/publication dates or revision dates/numbers are also identified, to ensure that same document versions are used at the time of specification writing and during contract execution.

All Coast guard drawings, technical publications, and standard specifications will be provided to contractors by the Coast Guard at an appropriate time, or upon request, free of charge. Other Government documents may be accessed – free of charge – from links located on the SFLC website. Commercial sites provide access to their respective documents.

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 113-001, Rev G, Platform Plating & Framing

Coast Guard Drawing 87 WPB 113-002, Rev B, Galley/Mess Deck Access

Coast Guard Drawing 87 WPB 167-002, Rev C, CG Schedule of Doors, Manholes, Windows & Hatches

Coast Guard Drawing 87 WPB 167-003, Rev -, Weather Tight Door for Fuel Station Access

Coast Guard Drawing 87 WPB 167-004, Rev H, W.T. Doors and Hatches

Coast Guard Drawing 87 WPB 185-001, Rev AP, Auxiliary Foundation Booklet

Coast Guard Drawing 87 WPB 302-001, Rev AF, Misc. Controls Wiring Diagram

Coast Guard Drawing 87 WPB 310-001, Rev J, Ship's Service One-Line Diagram

Coast Guard Drawing 87 WPB 313-001, Rev R, DC System

Coast Guard Drawing 87 WPB 321-001, Rev L, Power System Deck Plan

Coast Guard Drawing 87 WPB 321-002, Rev AV, Power & Lighting Circuit Details & V.D. Calculations

Coast Guard Drawing 87 WPB 514-001, Rev M, HVAC Duct & Piping Systems

Coast Guard Drawing 87 WPB 601-001, Rev R, Outboard Profile & General Arrangements

Coast Guard Drawing 87 WPB 621-001, Rev K, Jointer Work Details

Coast Guard Drawing 87 WPB 634-001, Rev G, Deck Covering and Details

Coast Guard Drawing 87 WPB 640-001, Rev P, Interior Furnishings

COAST GUARD PUBLICATIONS

Coast Guard Commandant Instruction (COMDTINST) M10360.3, Jun 2006, Coatings and Colors Manual

Coast Guard Technical Publication (TP) 4525, SWBS 202, 2003, Main Diesel Engine Control System Schematics

Coast Guard Technical Publication (TP) 4533, SWBS 233, 2002, Propulsion Internal Combustion Engines, Maintenance Manual

Coast Guard Technical Publication (TP) 4559, SWBS 513, Oct 2019, Ventilation System, Engine Room

Fire Prevention and Response

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 0740 (SFLC Std Spec 0740), 2022, Welding and Allied Processes

Surface Forces Logistics Center Standard Specification 3041 (SFLC Std Spec 3041), 2022, Shipboard Electrical Cable Test

Surface Forces Logistics Center Standard Specification 3042 (SFLC Std Spec 3042), 2022, Shipboard Electrical Cable Removal, Relocation, Splice, Repair, and Installation

Surface Forces Logistics Center Standard Specification 5100 (SFLC Std Spec 5100), 2022, Clean Shipboard Ventilation Systems

Surface Forces Logistics Center Standard Specification 5550 (SFLC Std Spec 5550), 2022,

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

Surface Forces Logistics Center Standard Specification 6341 (SFLC Std Spec 6341), 2022, Install Interior Deck Covering Systems

OTHER REFERENCES

American Society for Nondestructive Testing, SNT-TC-1A: Personnel Qualification and Certification in Nondestructive Testing, 2016

Code of Federal Regulations (CFR) Title 29, Part 1915, Occupational Safety and Health Standards for Shipyard Employment

MIL-D-16791, Jan 1993, Detergents, General Purpose (Liquid, Non-ionic)

MIL-PRF-24613A, Nov 2007, Deck Covering Materials, Interior, Cosmetic Polymeric

CONSOLIDATED LIST OF GOVERNMENT-FURNISHED PROPERTY

The following is a list of property, which the Government will furnish. This list supersedes any other material obligations indicated or implied by referenced drawings.

WORK ITEM	MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
3	N	**Fan, Tube Axial	NSN: 4140-01-598-0425	1 ea.	2,223.72
3	N	**Fan, Tube Axial	NSN: 4140-01-598-1549	1 ea.	3,091.15
5	N	Panel Bridge 24 V	NSN: 6110-01-F18-5605	1 ea.	2,548.00
5	N	Alternator	NSN: 6125-01-020-2950	2 ea.	14,668.79
5	N	Regulator Voltage	NSN: 5963-01-623-3549	2 ea.	350.00
5	N	Resistor Thermal	NSN: 5905-01-662-5504	2 ea.	35.00
5	N	Harness, Wiring	NSN: 5995-01-661-5659	2 ea.	75.00
5	N	Seal Plain	NSN: 5330-12-314-3403	2 ea.	56.32
5	N	Coupling Half	NSN: 4730-12-408-7920	2 ea.	1,572.87
5	N	Coupling, Flex	NSN: 3010-01-255-4200	2 ea.	480.44
5	N	Insert, Flexible Coupling	NSN: 3010-12-332-3557	2 ea.	830.23
5	N	Screw Machine	NSN: 5305-01-384-3454	12 ea.	3.71
5	N	Washer, Spring Tension	NSN: 5310-12-125-7798	12 ea.	2.44
5	N	Nut, Plain Hexagon	NSN: 5310-12-156-4982	12 ea.	2.33
5	N	Guard Plate	NSN: 2920-12-408-7817	2 ea.	941.45
5	N	Plate, Mounting	NSN: 5340-12-333-7085	2 ea.	75.00
5	N	Screw, Cap, Hexagon	NSN: 5305-01-240-1274	14 ea.	4.53
5	N	Washer, Spring Tension	NSN: 5310-01-195-9000	14 ea.	1.81
5	N	Screw Cap Hexagon	NSN: 5305-12-142-8243	4 ea.	7.92
5	N	Screw, Cap	NSN: 5305-12-142-8236	4 ea.	3.64
5	N	Washer, Flat	NSN: 5310-12-149-4352	8 ea.	2.35
5	N	Bracket	NSN: 2815-12-408-5547	4 ea.	130.18
6	N	**Panel, Deck, 5/8"x48"x96", Aluminum 5052-H32 Core, 1/4" Cell, 0.063" 6061-T6 Face Sheets, Natural Mill Finish	NSN: 2040-01-F19-5621 PN: SPXC-1000-1000D	1 ea.	$654.00

***Government-loaned property, which shall be returned to the vessel upon completion of the availability.**
****New or refurbished equipment that the Government may provide for installation in place of existing equipment.**
*****Government-furnished property, which is to be supplied by either the vessel or the C4IT Service Center**

CONSOLIDATED LIST OF CRITICAL INSPECTION ITEMS

The following is a list of work items, which contain Critical Inspection reports, which the Contractor must complete within the first 25% of the availability contract period (see SFLC Std Spec 0000, paragraph 3.2.6.5 (Inspection report particulars)):

Work Item	Title

This section is not applicable to this package.

PRINCIPAL CHARACTERISTICS

87' WPB	
PHYSICAL	
Length overall	87'
Length between perpendiculars	81' 7"
Depth	10' 11"
Maximum beam	19.4'
Draft, mean to design waterline	5' 9"
Height of highest projection	50.2'
Full load displacement	93.5 long tons
Minimum operating displacement	83.9 long tons
Displacement, light ship	77.9 long tons
Framing	Longitudinal
Bulkheads	Four watertight bulkheads located below the Main Deck
Anchor	40 lb. Fortress with 480 ft. 3 strand 5/8" dia. Line stayset
HULL	
Hull/main weatherdeck material	ABS Grade AH 36
Superstructure	5086 Aluminum
MACHINERY	
Main propulsion	Two MTU 8V396TE94, sequential turbo-charged diesels
Reduction gears	Two ZF Type BW 255
Propulsion shaft	Two AQUAMET 22, 101.6mm
Shaft diameter	4"
Shaft seal	Two Chesterton mechanical seals
Shaft bearing, intermediate	Thordon Elastomeric Bearing
Shaft bearing, aft	Thordon Elastomeric Bearing
Number of propellers	2
Number of blades	5
Diameter of propeller	1040mm
Pitch	1230 mm fixed
Shaft RPM	828
Rudders	Two 316L Stainless Steel
Ship's service generators	Two Man Model D08241F01 diesel with Stanford 60KW Generator
TANK CAPACITIES	
3-9-1-f (fuel oil)	1402 gal
3-9-2-f (fuel oil)	1402 gal
3-12-2-f (waste oil)	86 gal
3-12-1-f (oily water)	86 gal
3-7-0-q (sewage collection)	352 gal
3-7-1-q (grey water)	52 gal
3-12-1-w (fresh water)	200 gal
3-12-2-w (fresh water)	200 gal

General Requirements

1. SCOPE

1.1 Intent. This standard specification invokes general requirements for conducting vessel repairs performed by commercial contractors at a Coast Guard facility for Coast Guard vessels.

1.2 Term interchangeability. The terms 'Contractor', 'CG Yard', 'NAVSTA EVERETT', 'shipyard', 'Base', and 'Coast Guard Industrial' are used interchangeably in this specification. Where the primary service provider is Coast Guard personnel, references to contractor and other noted descriptors within this specification or within drawings, publications, SFLC Standard Specifications or other commercial and military references are deemed the same as prime service provider.

2. REFERENCES

COAST GUARD DRAWINGS

None

COAST GUARD PUBLICATIONS

Coast Guard Commandant Instruction (COMDTINST) M10360.3 (series), Coatings and Color Manual

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 0740 (SFLC Std Spec 0740), 2022, Welding and Allied Processes

Surface Forces Logistics Center Standard Specification 5550 (SFLC Std Spec 5550), 2022,

Fire Prevention and Response

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

OTHER REFERENCES

Code of Federal Regulations (CFR) Title 29, Part 1915, Occupational Safety and Health Standards for Shipyard Employment

3. REQUIREMENTS

3.1 General. The Contractor must conform to all requirements specified in SFLC Std Spec 0000 and in this item, as applicable, during the performance of this availability. The requirements in this WI applies to all work under

the scope of this contract, whether explicitly stated in all following work items or not, and to all other work subsequently authorized by changes, modifications, or extensions to the contract.

NOTE

NAVSEA drawings listed will be available FOR INSPECTION ONLY from the Coast Guard Port Engineer post-award. SFLC will not redistribute NAVSEA documents. Contractors can apply to NAVSEA headquarters directly for copies.

3.2 Contractor-provided fire watch personnel. The Contractor must provide fire watch personnel and equipment.

3.3 Preservation requirements. The Contractor must accomplish all preservation tasks, including touch-ups, in accordance with SFLC Std Spec 6310.

3.3.1 Brand name approval. Ensure that all contractor-furnished coatings are in accordance with SFLC Std Spec 6310, Appendix C (Authorized Coatings for Use on Cutters and Boats).

3.3.2 Coating colors and system color schemes. The Contractor must obtain a written KO authorization to deviate from any coatings required in SFLC Std Spec 6310 Appendix C before work.

3.3.3 In-process quality control measures. The Contractor must abide by all the safety, preservation, and quality control requirements specified in SFLC Std Spec 0000, paragraph 3.2.4.2 (In-process QC measures for "critical-coated surfaces").

3.3.3.1 Quality control requirements. The Contractor must abide by the following when performing preservation related inspections. The following measurements must be randomly spaced throughout for the purposes of providing a representation of the entire prepared or coated surface.

3.3.3.1.1 Surface profile measurements. One surface profile measurement must be taken for every 200 square feet for the first 1000 square feet; for each additional 500 square feet or less, one profile measurement must be taken. Profile measurements must be taken in accordance with SFLC Std Spec 6310, paragraph 3.1.8.3 (Surface profile measurements). A "measurement" for surface profile is defined as follows:

- ASTM D4417, Method B: One profile measurement is the average (mean) of 10 individual readings.
- ASTM D4417, Method C: One profile measurement is the average (mean) of 2 individual readings.

3.3.3.1.2 Soluble salt conductivity measurements. 5 conductivity measurements must be taken every 1000 square feet. For submerged (immersed) applications conductivity measurements must not exceed 30 microsiemens/cm. For non-submerged (non-immersed) applications conductivity measurements must not exceed 70 microsiemens/cm. If a conductivity check fails, clean the surface in accordance with SFLC Std Spec 6310, paragraph 3.1.8.5 (Soluble salt removal).

3.3.3.1.3 Coating thickness measurements. Three area measurements must be taken for the first 1000 square feet; for each additional 1000 square feet, perform an additional area measurement. A "measurement" for coating thickness is defined as follows:

- SSPC-PA 2 defines an area measurement as 5 separate spot measurements randomly spaced throughout a 100 square foot area.
- SSPC-PA 2 defines a spot measurement as 3 gage readings and each new gage reading the probe must be moved to a new location within a 1.5-inch diameter circle defining the spot.

3.4 Welding and brazing requirements. The Contractor must perform all welding and allied processes, and NDE in accordance with SFLC Std Spec 0740.

3.5 Environmental protection requirements. The Contractor must adhere to the following environmental protection requirements in accordance with the SFLC Stand Spec 0000:

3.5.1 USCG facilities. The Contractor must provide and maintain environmental protection as defined in SFLC Std Spec 0000 Appendix B, Requirements for Environmental Protection at USCG Facilities, during the performance of this availability. Contractor must plan for and provide environmental protective measures to control pollution that develops during normal practice, as well as plan for and provide environmental protective measures required to correct conditions that develop during the project. Contractor must comply with applicable Federal, state, and local laws, codes, ordinances, and regulations in their entirety. Any reference to a specific portion of a Federal, state, or local law, code, ordinance, or regulation in this or any other item must not be construed to mean that relief is provided from any other sections of the law, code, ordinance, or regulation.

3.5.1.1 USCG Generator status. The activity Generator Status for the Coast Guard Facility will be provided upon award.

3.5.1.2 Plans and permits. The CG Facility has unit specific permits including the following:

- Spill Prevention Control and Countermeasures (SPCC) Plan: Unit has a SPCC Plan which requires certain unit-specific procedures be followed for the storage, inspection, and transfer of petroleum products in containers 55 gallons or greater.
- National Pollutant Discharge Elimination System (NPDES) Storm Water (SW) Permit: Unit has an NPDES SW permit which requires unit-specific procedures be followed for the storage and inspection of equipment and materials which may contribute contaminants to storm water discharges.
- Air Emission Permit: Unit has an Air Emission Permit which requires unit-specific procedures be followed for the emissions of VOCs and hazardous air pollutants.

3.5.2 Test and procedures. The Contractor is required to promptly conduct tests and procedures for the purpose of assessing whether operations are in compliance with applicable Environmental Laws. Analytical work must be done by qualified laboratories; and where required by law, the laboratories must be certified.

3.5.3 Regulatory notifications. The Contractor is responsible for all regulatory notification requirements in accordance with Federal, State and local regulations. In cases where the Coast Guard must also provide public notification, such as storm water permitting, the Contractor must coordinate with the Contracting Officer or COR, and if work is being performed at a USCG Facility, the local Facility Engineer or Engineering Officer. The Contractor must submit copies of all regulatory notifications to the Contracting Officer and the local Facility Engineer or Engineering Officer prior to commencement of work activities. Regulatory notifications must be provided for including but not limited to demolition, renovation, National Pollutant Discharge Elimination System (NPDES) defined site work, and remediation of controlled substances such as asbestos, hazardous waste, and lead paint.

3.5.4 Environmental manager. The Contractor must appoint in writing an Environmental Manager for the project, who is responsible for coordinating Contractor compliance with Federal, State, local, and station environmental requirements. The Environmental Manager must ensure compliance with Hazardous Waste Program requirements, including hazardous waste handling, storage, manifesting, and disposal; implement the Contractors' Environmental Management Plan; ensure that all environmental permits are obtained, maintained, and closed out; ensure compliance with Storm Water Program Management requirements; ensure compliance with Hazardous Materials including storage, handling, and reporting requirements; as well as coordinate any remediation of regulated substances such as lead, asbestos, and polychlorinated biphenyl (PCB). This may be a collateral

position; however the individual must be trained to accomplish the following duties; ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation areas; ensure only authorized personnel add wastes to containers; ensure all Contractor personnel are trained in 40 CFR requirements and individual position requirements; coordinate removal of waste containers; and maintain the Environmental Records binder and required documentation, including environmental permits compliance and close-out.

3.5.5 HW disposal. Contractor must comply with SFLC Std Spec 0000 Appendix B, Requirements For Environmental Protection At USCG Facilities for HW disposal, and ensure that waste removals are conducted during normal business hours (0800-1600) on Monday through Friday (excluding holidays).

3.5.6 Additional Requirements. The Contractor must be aware of the following:

3.5.6.1 No Contractor or Subcontractor must have the authority to sign a Hazardous Waste Manifest using the Coast Guard facility's EPA Generator ID Number or remove contract generated hazardous waste from the Coast Guard facility without COR or KO-approval.

3.5.6.2 Local environmental regulations at the Government facilities may be more stringent. As with all environmental regulations, the Contractor must prepare for and comply with local and state regulations.

3.5.6.3 Coast Guard facilities do not maintain Facilities Response Plans (FRPs) per 33 CFR 154. Contractor must furnish the FRP when required for over-the-water liquids transfers to and from vessels, and is required for oil/fuel transfers to/from vessels for 250 barrels (10,500 gallons) or more.

3.6 Local Policy. The Contractor must refer to site (e.g., Base) Regulations and Instructions for details regarding local policies (e.g., crane services, parking, or facility usage).

3.7 SFLC Standard Specification approved changes. Approved updates to the 2022 SFLC Standard Specifications will appear here.

3.7.1 SFLC Standard Specification 5550: Replace paragraph 3.11.3 to state, "Material supporting imminent work shall be brought on the cutter and stored where the work is being performed. Material that appreciably contributes to fire load shall be removed at the end of each work shift when personnel are not present. Trash, debris, and packaging materials shall be promptly removed from the vessel at the end of each work shift and not allowed to accumulate." Advance the paragraph numbering of the Fire Prevention and Safety Inspection form to 3.11.4.

4. NOTES

4.1 QA inspection forms. QA inspection forms (QA-1 thru QA-5), required in SFLC Std Spec 6310 to be completed and submitted during preservation of "critical-coated surfaces", are provided at the end of this document.

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QA-1 - QUALITY ASSURANCE INSPECTION FORM

(PRESERVATION CHECKLIST)

VESSEL NAME	HULL #	WORK ITEM #	WORK ITEM TITLE
LOCATION OF WORK (INCL. FRAME #'S)			**AREA (SQFT)**

CHECKPOINT 1 – COATING SYSTEM COMPLIANCE	
	Ensure all coatings are in compliance with SFLC Std Spec 6310, Appendix C.
CHECKPOINT 2 - PAINT STORAGE	
	Ensure all coatings are kept at a temperature of 65 to 85°F at all times, unless otherwise specified by the coating mfg.
CHECKPOINT 3 - AMBIENT CONDITIONS	
	Ensure surface and surrounding temperatures are each between 50 and 90°F for water-containing coatings, and 35 and 95°F for other coatings, unless otherwise specified by the coating manufacturer(s).
	Ensure maximum relative humidity (RH) is as follows, from surface preparations through final curing of topcoat: 50% for tanks, voids, and vent plenum; and 85% for all other areas, unless otherwise specified by manufacturer(s).
	Ensure surface temperature is at least 5°F above the dew point, unless otherwise specified by the coating mfg.
CHECKPOINT 4 - PRE-SURFACE PREPARATION	
	Remove surface contaminants (soluble salts, loose rust, mud, and marine growth) with low pressure fresh water wash down (maximum 5,000 psi). If oil and grease are present, perform solvent cleaning, as per SSPC SP-1.
	Verify equipment setup, blast media, and surface preparation methods match designated test coupon.
CHECKPOINT 5 - SURFACE PREPARATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Ensure cleanliness of prepared surface is as per specification (i.e.: SSPC SP-11, SP-10, SP WJ-2…).
	Verify surface anchor profile using ASTM D4417-Methods B or C against SFLC Std Spec 6310. Conduct profile readings at a minimum of 5 locations for the first 1000-sqft area, and 2 locations for each succeeding 1000-sqft area.
	Measure soluble salt conductivity in accordance with SSPC-Guide 15. Conduct 5 measurements per each 1000-sqft area (max. threshold: 70 microsiemens/cm for non-submerged surfaces, 30 microsiemens/cm for submerged surfaces).
CHECKPOINT 6 - PRIMER COAT APPLICATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Verify proper mixing and stand-in (induction) times.
	Ensure no paint is applied when the temperature is expected to drop to freezing before the paint has dried.
	Ensure surfaces are completely dry, unless otherwise allowed by the coating manufacturer(s).
	Verify wet film thickness (WFT) at random, to prevent under or over application. Verify final DFT.
	Brush out all runs, sags, drips, and puddles.
	Perform visual inspection for holidays and other defects.
CHECKPOINT 7 – STRIPE COAT APPLICATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Ensure overcoating window is as per manufacturer's instructions.
	After primer coat (mist coat after inorganic zinc), brush-apply un-thinned coat of same primer paint over edges, weld seams, cut-outs, and areas of complex geometries @ 3-4 mils wet film thickness (WFT).
CHECKPOINT 8 – TOP COAT APPLICATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Ensure overcoating window is as per manufacturer's instructions.
	Verify proper mixing and stand-in (induction) times, as applicable.
	Verify wet film thickness at random, to prevent under or over application.
	Brush out all runs, sags, drips, and puddles.
CHECKPOINT 9 – FINAL INSPECTION	
	Verify final system dry film thickness. Conduct 5 sets of 3 readings for each of the first 3 100-sqft areas, followed by 5 sets of 3 readings for each succeeding 1000-sqft area.
	Ensure that system cure is in accordance with manufacturer's recommendation for intended service.
	Ensure potable water tank exhaust ventilation is maintained continuously from and during coating application through final system cure, to exhaust all solvent to the atmosphere and to prevent solvent entrapment.
	For immersion coatings (including tank U/W body), record date and time of the following events: Final coat application: / ; Return to service or removal from environment controls: /
CHECKPOINT 10 – RECORD KEEPING	
	Complete, sign, and submit all provided QA Inspection Forms.

NAME OF QP-1/AMPP INSPECTOR	SIGNATURE	CERT. #	DATE / TIME
NAME OF CG REPRESENTATIVE	**SIGNATURE**	**UNIT**	**DATE/TIME**

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QA-2 - QUALITY ASSURANCE INSPECTION FORM

(ENVIRONMENTAL READINGS)

VESSEL NAME	HULL #	WORK ITEM #	WORK ITEM TITLE

Use one sheet for each activity. Record conditions every four hours from before surface preparation to application of final coating system coat.

DATE & TIME	ACTIVITY (SURFACE PREPARATION, PRIMER COAT, BARRIER COAT, TOP COAT, ETC…)	LOCATION (FRAME & DECK, RELATION TO EQUIPMENT, ETC.)	TEMPERATURE				% REL. HUMID-ITY
			DEW PT.	SURFACE	AMBIENT	ΔT | DP - SURFACE |	

NAME OF QP-1/AMPP INSPECTOR	SIGNATURE	CERT. #	DATE / TIME
NAME OF CG REPRESENTATIVE	**SIGNATURE**	**UNIT**	**DATE/TIME**

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QA-3a - QUALITY ASSURANCE INSPECTION FORM

(SURFACE PROFILE LOG FOR PROFILE MEASUREMENTS IAW ASTM D4417-METHOD-C)

VESSEL NAME	HULL #	WORK ITEM #	WORK ITEM TITLE
LOCATION OF WORK (FRAME REFERENCES)			**AREA (SQFT)**

SURFACE PREPARATION METHOD		PROFILE ACHIEVED (MILS)		
		MIN	MAX	MEAN
SSPC-SP-10/AMPP No. 2	☐			
SSPC-SP WJ-2/AMPP WJ-2	☐			
SSPC-SP-3	☐			
SSPC-SP-11	☐			
SSPC-SP-11 (inaccessible area)	☐			
Brush-blasting (non-metallic substrate)	☐			
ABRASIVE MANUFACTURER:		**ABRASIVE SIEVE SIZE:**		

PLACE SURFACE PROFILE REPLICA TAPES IN THE SPACES PROVIDED BELOW, TO SERVE AS PERMANENT QA RECORD. MAINTAIN A SEPARATE LOG FOR EACH LOCATION. WHEN AN AREA IS DIVIDED INTO SEPARATE SECTIONS, MAINTAIN A SEPARATE LOG FOR EACH SECTION.		
Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here
Reading (mils):	Reading (mils):	Reading (mils):
Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here
Reading (mils):	Reading (mils):	Reading (mils):
Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here
Reading (mils):	Reading (mils):	Reading (mils):
Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here
Reading (mils):	Reading (mils):	Reading (mils):
Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here	Place Surface Profile Replica Tape Here
Reading (mils):	Reading (mils):	Reading (mils):
MEAN MIL READING (IAW ASTM D4417-METHOD C) FOR ABOVE 15 READINGS:		

NAME OF QP-1/AMPP INSPECTOR	SIGNATURE	CERT. #	DATE / TIME
NAME OF CG REPRESENTATIVE	**SIGNATURE**	**UNIT**	**DATE/TIME**

QA-3b - QUALITY ASSURANCE INSPECTION FORM
(SURFACE PROFILE LOG FOR PROFILE MEASUREMENTS IAW ASTM D4417-METHOD-B)

VESSEL NAME	HULL #	WORK ITEM #	WORK ITEM TITLE
LOCATION OF WORK (INCL. FRAME #'S)			**AREA (SQFT)**

SURFACE PREPARATION METHOD		PROFILE ACHIEVED (MILS)		
		MIN	MAX	MEAN
SSPC-SP-10/AMPP No. 2	☐			
SSPC-SP WJ-2/AMPP WJ-2	☐			
SSPC-SP-3	☐			
SSPC-SP-11	☐			
SSPC-SP-11 (inaccessible area)	☐			
Brush-blasting (non-metallic substrate)	☐			
ABRASIVE MANUFACTURER:		**ABRASIVE SIEVE SIZE:**		

RECORD MEASUREMENTS TAKEN IN THE SPACES PROVIDED BELOW, TO SERVE AS PERMANENT QA RECORD. MAINTAIN SEPARATE LOG FOR EACH LOCATION. WHEN AN AREA IS DIVIDED INTO SEPARATE SECTIONS, MAINTAIN A SEPARATE LOG FOR EACH SECTION.					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Reading (mils):					
Mean Mils Reading (IAW ASTM D4417-Method B for above 10 readings (by column):					
Mean Reading (mils)					

NAME OF QP-1/AMPP INSPECTOR	SIGNATURE	CERT. #	DATE / TIME
NAME OF CG REPRESENTATIVE	**SIGNATURE**	**UNIT**	**DATE/TIME**

QA-4 - QUALITY ASSURANCE INSPECTION FORM
(SURFACE SOLUBLE SALT CONDUCTIVITY LOG)

VESSEL NAME	HULL #	WORK ITEM #	WORK ITEM TITLE
LOCATION OF WORK (INCL. FRAME #'S)			AREA (SQFT)

SOLUBLE SALT CONDUCTIVITY MEASUREMENTS IAW SSPC-GUIDE 15.		
DATE	TEST LOCATIONS	CONDUCTIVITY (MICROSIEMENS/CM)

NAME OF QP-1/AMPP INSPECTOR	SIGNATURE	CERT. #	DATE / TIME
NAME OF CG REPRESENTATIVE	SIGNATURE	UNIT	DATE/TIME

QA-5 - QUALITY ASSURANCE DATA FORM
(COATING THICKNESS)

(Use one sheet for each sequence)

VESSEL NAME	HULL #	WORK ITEM #	WORK ITEM TITLE

COATING MFG	PRODUCT NAME	BATCH #	INDUCTION TIME	COATING SYSTEM SEQUENCE (PRIMER/TOUCHUP/3RD COAT, ETC.)

DRY FILM THICKNESS (DFT) MEASUREMENTS IAW SSPC-PA 2.						
SPOT	1	2	3	4	5	AVERAGE VALUE
*BASE METAL READING (BMR)						
*Required, If Magnetic Pull-Off (Type I/Banana) Gauge Is Used.						

LOCATION (FRAME REFERENCE):								
SPOT	1	2	3	4	5	OVERALL AVG. DFT	ADJUSTMENTS	
1							AVG. BMR	DEVIATION
2								
3						BEFORE ADJUSTMENTS	AFTER ADJUSTMENTS	
AVG.								
LOCATION (FRAME REFERENCE):								
SPOT	1	2	3	4	5	OVERALL AVG. DFT	ADJUSTMENTS	
1							AVG. BMR	DEVIATION
2								
3						BEFORE ADJUSTMENTS	AFTER ADJUSTMENTS	
AVG.								
LOCATION (FRAME REFERENCE):								
SPOT	1	2	3	4	5	OVERALL AVG. DFT	ADJUSTMENTS	
1							AVG. BMR	DEVIATION
2								
3						BEFORE ADJUSTMENTS	AFTER ADJUSTMENTS	
AVG.								

APPLICATION METHOD (AIRLESS, CONVENTIONAL SPRAY, ROLLED)	AVERAGE DFT

NAME OF QP-1/AMPP INSPECTOR	SIGNATURE	CERT. #	DATE / TIME
NAME OF CG REPRESENTATIVE	SIGNATURE	UNIT	DATE/TIME

4.2 Tank and Void Assessment form.

SFLC-ESD-25	TANK AND VOID ASSESSMENT FORM
PRINT RESET	

GENERAL DATA	Note: Use SFLC-ESD-29 for Compartments other than Tanks & Voids.		
Inspector's Name:	Organization:	Contact Info:	
Cutter Name:	Cutter Class:	Hull:	
Tank:	Service:	Tank Area:	Gallons:
Solid Balast:	Access Compt:	Date:	Assessment Reason:

ACCESS DATA	
Manhole and cover condition:	Tank Penetration Condition:

VENT OVERFLOW DATA		
Present: ◯Yes ◯ No	Check Valve Installed: ◯Yes ◯No	Check Valve Operates Properly: ◯Yes ◯No

LADDER DATA		
NR of Ladder(s) Present: ◯Yes ◯No	Ladder Damaged: ◯Yes ◯No	Ladder Material:

TANK LEVEL INDICATOR (TLI) DATA		
TLI Present in Tank: ◯Yes ◯No	TLI Damaged: ◯Yes ◯No	TLI Type:

SOUNDING TUBE DATA	
Sounding Tube Present in Tank: ◯Yes ◯No	Sounding Tube Damaged: ◯Yes ◯No
Striker Plate Damaged (>50%): ◯Yes ◯No	

CATHODIC PROTECTION DATA		
Cathodic Protection in Tank: ◯Yes ◯No	Total Zincs:	Number of Zincs > 50% Depleted:

	1-6		Cleanliness & Housekeeping
Clean to light layer or residue		1-2 (G)	Comments:
Loose accumulation scale		3-4 (Y)	
Impending residue and sediments		5-6 (R)	

	%	1-6		Coating Systems
All Painted Surfaces			1-2 (G)	Comments:
			3-4 (Y)	
			5-6 (R)	

	%	1-6		Structural
Corrosion			1-2 (G)	Comments:
			3-4 (Y)	
			5-6 (R)	
Pitting & Grooving			1-2 (G)	Comments:
			3-4 (Y)	
			5-6 (R)	

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SFLC-ESD-25	TANK AND VOID ASSESSMENT SHEET
PRINT	

Structural Integrity Data					
Estimated Total Linear Feet of Structure Requiring Repair:			Estimated Total Square Feet of Plating Requiring Repair:		
Cracks/ Fractures Present:	Yes	No	Buckling/Deflections/ Distortions Present:	Yes	No
Holes Present:	Yes	No	Material Wastage Present:	Yes	No
All Welds Intact:	Yes	No	Structural Evaluation Recommended:	Yes	No

PHOTOGRAPHS

Pictures Taken (enter quantity):

Note: To add pictures to this form, Work Station must have Adobe Acrobat (not Reader) installed.
Add all photos and photo comments to a word document and save file. Open this form and click "Combine Files". Add the document with photos you've just saved and save as a new combined .pdf files.

Additional Comments:

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WORK ITEM 1: Watertight Closures, Assess

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to perform a condition assessment of all installed watertight closures.

TABLE 1 - 87' WPB WATERTIGHT CLOSURES

LOCATION	DESIGNATION	DESCRIPTION
Pilot House Access	01-15-0	54" x 24" Clear Opening w/ 4-Dog Weathertight Door w/2 Windows (Hulls 87301-87309)
Pilot House Access	01-15-0	54" x 24" Clear Opening, Quick-Acting Heavy Duty Style w/ Window, Weathertight (Hulls 87310 on)
Forepeak Access	1-1-2	18" Clear Opening Round Al. Cast Hatch, SST Deck Ring w/ Integral Topside Handle
Fwd Crew Quarters Access	1-2-0	24"x24" Clear Opening 4-Dog Quick Action WTRTT Raised Hatch
Deck Locker Access	1-6-0	52" x 26" Clear Opening 6-Dog, Quick Acting WTRTT Door
Fuel Station Access	1-6-2	26" x 28" Clear Opening, 8-Dog, Weathertight, Individually-Dogged
Main Deck Access	1-15-0	54" x 26" Clear Opening, 6-Dog, Quick Acting WTRTT Door
Engine Room Access	1-21-1	24" x 24" Clear Opening 4-Dog Quick Acting WTRTT Raised Hatch
Lazaret Access (Stbd)	1-22-1	24" x 24" Clear Opening 4-Dog Quick Acting WTRTT Raised Hatch
Lazaret Access (Port)	1-22-2	24" x 24" Clear Opening 4-Dog Quick Acting WTRTT Flush Hatch
Fwd Passageway Access	2-9-0	54" x 26" Clear Opening 6-Dog, Quick Acting WTRTT Door
Engine Room Access	2-14-0	54" x 26" Clear Opening 6-Dog, Quick Acting WTRTT Door

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 167-002, Rev C, CG Schedule of Doors, Manholes, Windows & Hatches

Coast Guard Drawing 87 WPB 167-003, Rev -, Weather Tight Door for Fuel Station Access

Coast Guard Drawing 87 WPB 167-004, Rev H, W.T. Doors and Hatches

COAST GUARD PUBLICATIONS

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 0740 (SFLC Std Spec 0740), 2022, Welding and Allied Processes

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

OTHER REFERENCES

None

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep.

Not applicable.

3.1.3 Protective measures. The Contractor must furnish and install all protective measures in accordance with SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection).

3.1.4 Interferences. The Contractor must handle all interferences in accordance with SFLC Std Spec 0000, paragraph 3.3.5 (Interferences).

3.2. Watertight closure assessment. Using Coast Guard Drawings 87 WPB 167-002, 87 WPB 167-003, and 87 WPB 167-004 as reference, the Contractor must perform an assessment of all watertight closures listed in Table 1 as follows. Submit CFR with results of inspections including recommendations for repair or renewal:

3.2.1 Inspect all watertight closures for loose, missing or damaged parts; wear of hinge pins and striker plates; and clogged drain lines where applicable.

3.2.2 Operate closures through complete dogging cycle, checking for binding and/or difficult operation.

3.2.3 Inspect closure gasket for the following:

3.2.3.1 Paint/foreign matter, cracks, or deterioration.

3.2.3.2 Uneven or excessive depression (greater than 1/8”).

3.2.3.3 Gaps greater than 1/16” where ends meet, or any ends that meet in a radius (except for round closures).

3.2.4 Apply grease to all intact grease fittings. Note any missing or broken fittings.

3.2.5 Inspect closure knife edge for nicks and gouges. Repair minor gouges by filing smooth.

NOTE

If the nick or gouge has a gap greater than 1/16", the knife edge may require weld buildup prior to filing smooth in order to keep the knife edge fair.

3.2.6 Chalk test. Perform a chalk test of all inspected closures in accordance with SFLC Std Spec 0740, Appendix C.

3.2.7 Water hose test. Perform a water hose test of all watertight closure boundaries in accordance with SFLC Std Spec 0740, Appendix C.

3.2.8 String test. Perform a string test of all inspected closures to identify any twisting and/or warpage of knife edge. Measure and report gap at the intersection of the two strings both when pulled taught across corners and when pulled taut across the midpoints of the sides. See Figure 1 for guidance.

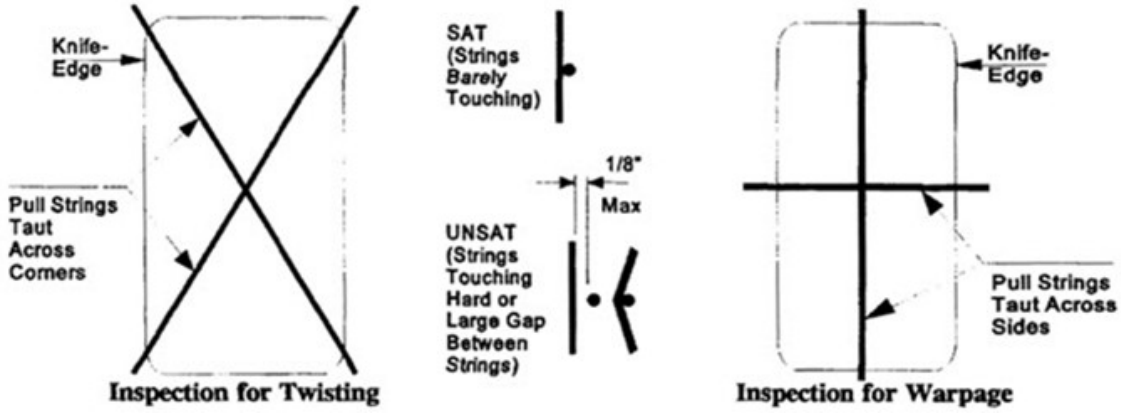

FIGURE 1. KNIFE EDGE STRING TEST

3.3 Repair change request authorization. If a Change Request has been authorized and released by the Contracting Officer (KO), the Contractor must execute minor repairs as identified by CFR to return closure(s) to operable condition and/or restore watertight integrity.

NOTE

Examples of minor repairs include, but are not limited to, parts renewals and weld repairs such as hinge bracket renewal/relocation and knife edge repairs.

3.4 Operational test, post repairs. After completion of work, the Contractor must thoroughly test in the presence of the Coast Guard Inspector and demonstrate all items or shipboard devices that have been repaired are in satisfactory operating condition.

3.5 Final report. Within seven (7) days after the completion of the assessment and follow-on repairs, the Contractor must submit a final report to the cutter EO with copy to the COR. The final reports must include:

- Complete list of watertight closures assessed

- List of closures not assessed and the reasons for non-assessment
- Condition found on all assessed closures
- List of repairs accomplished
- List of additional recommended repairs

3.6 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs.)

4. NOTES

4.1 This section does not apply to this WI.

WORK ITEM 2: Electrical Power Distribution System, Thermographic Inspection, 450 VAC And Below

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to perform a thermographic inspection on the vessel's Electrical Power Distribution System.

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 302-001, Rev AF, Misc. Controls Wiring Diagram

Coast Guard Drawing 87 WPB 310-001, Rev J, Ship's Service One-Line Diagram

Coast Guard Drawing 87 WPB 321-001, Rev L, Power System Deck Plan

Coast Guard Drawing 87 WPB 321-002, Rev AV, Power & Lighting Circuit Details & V.D. Calculations

COAST GUARD PUBLICATIONS

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

OTHER REFERENCES

American Society for Nondestructive Testing, SNT-TC-1A: Personnel Qualification and Certification in Nondestructive Testing, 2016

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep.

Not applicable

3.1.3 Protective measures. The Contractor must furnish and install all protective measures in accordance with SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection).

3.1.4 Interferences. The Contractor must handle all interferences in accordance with SFLC Std Spec 0000, paragraph 3.3.5 (Interferences). Known interferences include, but are not limited to the following:

- Wiring
- Distribution panel covers
- Controller panel covers
- Switchboard panel covers
- Electrical wiring

3.2 Thermal imaging survey. The Contractor must use the Coast Guard Drawings and Publications listed in Section 2 as guidance. The electrical equipment to be surveyed must be limited to the list below:

TABLE 1: EQUIPMENT LIST

NOMENCLATURE	SPECIFICATIONS	LOCATION
SHIP SERVICE DIESEL GENERATOR STBD #1	60KW, 450VAC, 60HZ, 3PHASE	2-14-0-E
SHIP SERVICE DIESEL GENERATOR PORT #2	60KW, 450VAC, 60HZ, 3PHASE	2-14-0-E
SHIP SERVICE SWITCHBOARD	450VAC, 60HZ, 3PHASE	2-14-0-E
SHIP SERVICE DISTRIBUTION SWITCHBOARD SECTION 1	450VAC, 60HZ, 3PHASE	2-14-0-E
SHIP SERVICE DISTRIBUTION SWITCHBOARD SECTION 2	450VAC, 60HZ, 3PHASE	2-14-0-E
GALLEY/VENT POWER PANEL	450VAC, 3PHASE, 60HZ, 225AMP	2-13-2
ENGINE ROOM LIGHTING PANEL #1	120VAC, 3 PHASE, 60HZ, 225AMP	2-14-0
GALLEY LIGHTING PANEL	120VAC, 3 PHASE, 60HZ, 125AMP	2-12-1
FORWARD QUARTERS LIGHTING PANEL	120VAC, 3 PHASE, 60HZ, 125AMP	2-8-2
OFFICERS LIGHTING PANEL	120VAC, 3 PHASE, 60HZ, 125AMP	1-11-2
PILOTHOUSE LIGHTING PANEL	120VAC, 3 PHASE, 60HZ, 100AMP	01-11-4
PILOTHOUSE ELECTRONICS PANEL	120VAC, 3 PHASE, 60HZ, 100AMP	01-11-2
ENGINE ROOM LIGHTING PANEL #2	120VAC, 3 PHASE, 60HZ, 225AMP	2-14-2
MOTOR CONTROLLER, STEERING PUMP #1	450VAC, 3 PHASE, 60HZ, NEMA SIZE 1	2-14-0-E
MOTOR CONTROLLER, STEERING PUMP #2	450VAC, 3 PHASE, 60HZ, NEMA SIZE 1	2-14-0-E
MOTOR CONTROLLER, FIRE/BILGE PUMP (PORT)	450VAC, 3 PHASE, 60HZ, NEMA SIZE 2	2-14-0-E
MOTOR CONTROLLER, FIRE/BILGE PUMP (STBD)	450VAC, 3 PHASE, 60HZ, NEMA SIZE 2	2-14-0-E
MOTOR CONTROLLER, POTABLE WATER PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 1	2-9-1-Q
MOTOR CONTROLLER, FLOCS PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 00	2-14-0-E
MOTOR CONTROLLER, HVAC CLG PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 00	2-14-0-E

MOTOR CONTROLLER, HYDRAULIC POWER UNIT (ANCHOR WINDLASS/RIB)	450VAC, 3 PHASE, 60HZ, NEMA SIZE 2	2-22-0-E
MOTOR CONTROLLER, DIRTY OIL PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 00	2-14-0-E
MOTOR CONTROLLER, FUEL OIL TRANSFER PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 1	2-14-0-E
MOTOR CONTROLLER, SEWAGE TRANSFER PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 1	3-2-0-V
MOTOR CONTROLLER, GREY WATER PUMP	450VAC, 3 PHASE, 60HZ, NEMA SIZE 1	3-2-0-V
VARIABLE SPEED DRIVE, ENGINE RM EXHAUST FAN	450 VAC, 3PHASE, 60HZ	2-14-0-E
VARIABLE SPEED DRIVE, ENGINE RM SUPPLY FAN	450 VAC. 3PHASE, 60HZ	2-14-0-E
TRANSFORMER	7.5KVA, 450/120VAC 60HZ	2-14-0-E
TRANSFORMER	2KVA, 450/120VAC 60HZ	01-10-0-C

NOTE

Electric equipment must be defined herein as equipment which is used to convert, control, or utilize electrical power, such as: switchboards, power panels, load centers, motor controllers, and bus transfer switches.

3.3 Equipment loading. The Contractor must perform the thermal imaging survey while the electrical distribution system is fully loaded and energized and only after the vessel's equipment has been energized and under load for at least 30 minutes prior to the inspection.

NOTE

Coast Guard personnel will perform start up and operational test of all shipboard machinery and equipment requiring to be energized and running for thermal imaging inspections.

3.4 Operational test, initial. Prior to commencement of any work, the Contractor must witness Coast Guard personnel perform an initial operational test of all items or shipboard devices to be disturbed, used, repaired, or altered, to demonstrate existing operational condition. Submit a CFR.

WARNING

Take all necessary precautions to prevent injury due to electric shock and potential arc-flash. Only necessary personnel (contracted or Ship's Force) must be present in the compartment while energized panels are open. Only authorized personnel, and no Coast Guard personnel, must break the plane of the arc flash boundary.

3.5 Thermal imaging inspections. Prior to opening an electrical enclosure, the Contractor shall establish an arc flash boundary of at least four (4) feet from the electrical plane of the equipment. Clearly mark and erect a barrier to prevent the access of unauthorized personnel. Establish visible safety boundary at all entrances to the space where work is being performed using red danger tape or signage. Maintain this safety boundary until all thermal inspections are completed and all electrical covers are reinstalled within the space.

3.6 Infrared thermal imaging system (IRTIS) equipment. The Contractor must use Infrared Thermal Image System (IRTIS) equipment/camera in performance of this survey that meets or exceeds the following performance criteria:

- Accuracy: +/- 1.5% or 1.5°C (2.7°F)
- Object temperature range: 4 to +380°C (40 to +716°F)
- Display Type: Color
- Digital Image Type: Color and Grayscale
- Color Palettes: Hot Iron, Rainbow, Grayscale

3.7 Test equipment calibration and operational checks. The Contractor must ensure the IRTIS equipment is calibrated and certified per manufacturer. The IRTIS equipment must be adjusted each time equipment is energized. Initially and when the IRTIS test equipment is operated continuously for long periods of time, a grey scale check must be made in accordance with the IRTIS manufacturer's instructions.

3.8 Operator thermal imaging certification. Possession of a current ANSI/ASNT LEVEL I certification (or higher) meeting SNT-TC-1A: Personnel Qualification and Certification in Nondestructive Testing criteria is preferred. Otherwise, the Contractor shall describe all relevant thermal imaging skills and experience, as directed elsewhere in the solicitation.

3.9 Scan procedure. The Contractor must perform detailed thermal imaging scan of all wiring, connections, bus work and all current carrying components that are accessible without breaking the electrical plane of the electrical equipment being surveyed while observing the monitor for hot or cold spots. When a potential hot or cold spot is found, the contractor must determine the temperature difference between the hot or cold spot and surrounding equipment reference temperature.

NOTE

Fahrenheit (F) = Celsius (C)*(9/5) + 32, and C = (5/9)*(F-32)

Hot spot: A hot spot is a relative temperature related to the equipment which is surveyed. A general rule of thumb considers a 'hot spot' 18°F / 10°C or more above the equipment reference temperature.

Cold spot: A cold spot is any area of the equipment which is surveyed where the temperature is satisfactory, but exhibits an open connection, component fault, or some other similar problem.

3.9.1 Scan spot criteria. When detecting a hot or cold spot the Contractor must determine the temperature difference between the hot and cold spot in accordance with the IR test equipment OEM procedures manual. For a temperature difference of 70 degrees Celsius and above (Severity Code IV), imminent failure is expected, and must be reported immediately to the ship's Engineering Officer and Contracting Officers Representative (COR.) Contractor must follow all criteria and all reporting actions on Table 2 excluding making repairs.

TABLE 2 – REFERENCE TEMPERATURES & SEVERITY CODE DETERMINATION

TEMPERATURE RISE OR ΔT*	OPERATIONAL ASSESSMENT	SEVERITY CODE	ACTION

70°C and above	Failure Imminent	IV	Equipment should be secured immediately and ships Engineering Officer notified. Do not operate until repairs are complete.
40°C to less than 70°C	Failure Almost Certain	III	Equipment should be secured if operating conditions permit otherwise monitored until corrective action can be taken.
20°C to less than 40°C	Failure Possible	II	Corrective action should be taken as soon as feasible.
5°C to less than 20°C	Performance Degraded	I	Corrective action should be taken at next scheduled routine maintenance period or as schedule permits.
Less than 5°C	N/A	N/A	No corrective action required; note for future reference.

***The temperature rises or ΔT's indicated above are the temperature differentials between the thermal anomaly (i.e., faulty connection or component) and the reference temperature. The reference temperature is normally a similar, normal operating connection, component, or phase.**

3.9.2 Scan images. Provide, at a minimum, one color and one gray scale IR thermograph image of each faulty component or connection found, showing isothermal level scale on the images.

3.9.3 Scan photos. Provide, at a minimum, one digital non-infrared color photographic image of each faulty component or connection found from the same angle and perspective as used for the IR thermograph image, and identify the location of fault with arrow on the images.

3.9.4 Scan data. Save in electronic jpeg format, all thermal images and digital photographs, keeping a record of the images that are being saved. Record all pertinent data associated with each image regarding the piece of equipment, location, specific component or connection and the severity code (I, II, III or IV based on Table 2 criteria above).

3.10 Thermal inspection report. The Contractor must submit two electronic copies of the thermal image survey report to the COR within five days of the thermographic inspection. The report must contain one (1) individual full page per fault/condition found including, at a minimum, the following required content:

- Date and time of inspection
- Location of equipment (id tag on gear) and name of faulty component within the equipment
- IR thermograph and non-IR digital images
- Ambient air temperature of ship space
- Temperature of faulty component
- Reference component temperature
- Temperature rise (Δ T)
- Descriptive technical fault assessment based on temperature rise
- Severity code from Table 2
- Probable cause and recommended action to correction

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.11 Operational test – post repairs. After completion of work, the Contractor must thoroughly test, in the presence of the Coast Guard Inspector, and demonstrate all items or shipboard devices that have been disturbed, used, repaired, altered, or installed to be in satisfactory operating condition. Submit a CFR.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 3: Ventilation System, Engine Room Supply and Exhaust Fan Assemblies, Clean and Inspect

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean and inspect the engine room supply and exhaust fan assemblies.

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	**Fan, Tube Axial	NSN: 4140-01-598-0425	1 ea.	2,223.72
N	**Fan, Tube Axial	NSN: 4140-01-598-1549	1 ea.	3,091.15

****New or refurbished equipment that the Government may provide for installation in place of existing equipment.**

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 185-001, Rev AP, Auxiliary Foundation Booklet

Coast Guard Drawing 87 WPB 601-001, Rev R, Outboard Profile & General Arrangements

COAST GUARD PUBLICATIONS

Coast Guard Technical Publication (TP) 4559, SWBS 513, Oct 2019, Ventilation System, Engine Room

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

OTHER REFERENCES

None

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep.

Not applicable.

3.1.3 Protective measures. The Contractor must furnish and install all protective measures in accordance with SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection).

3.1.4 Interferences. The Contractor must handle all interferences in accordance with SFLC Std Spec 0000, paragraph 3.3.5 (Interferences). Known interferences include, but are not limited to the following:

- Louver screens
- Engine room diverter plate/scoop

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.1.5 Operational test, initial. Prior to commencement of work, the Contractor must witness Coast Guard personnel perform an initial operational test of all items or shipboard devices to be disturbed, used, repaired, or altered, to demonstrate existing operational condition. Submit a CFR.

3.2 Work particulars. Using Coast Guard Technical Publication (TP) 4559 and Coast Guard Drawings 87 WPB 185-001 and 87 WPB 601-001 as guidance, the Contractor must accomplish the following. Submit CFR with results of inspections and any repair recommendations.

3.2.1 Remove the louver screens from the intake and exhaust vent trunks (aft side of superstructure, FR 16, main deck, port and stbd side) to gain access to supply and exhaust vent fans.

3.2.2 Disassemble, clean, and inspect duct and fan housing assemblies.

3.2.3 Unbolt aluminum rings (fan assembly foundations) from main deck and inspect.

3.2.4 Inspect both electric motors and measure the insulation resistance of the motor windings.

3.2.5 Inspect turning vane adapter (mounted directly underneath main deck on starboard side) for corrosion or wear.

3.2.6 At reassembly, renew all disturbed fasteners.

3.3 Operational test, post repairs. After completion of work, the Contractor must thoroughly test, in the presence of the Coast Guard Inspector, and demonstrate all items or shipboard devices that have been disturbed, used, repaired, altered, or installed to be in satisfactory operating condition. Submit a CFR.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.4 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs.)

3.5 Government's right for change out. The Contractor must be aware that the Government reserves the right to furnish a new port and/or starboard fan assembly for installation in place of the existing. If the Government exercises this right, the Contractor must dispose of the removed fan assemblies in accordance with all applicable Federal, state, and local regulations.

NOTE

New GFE fan assemblies received under NIIN 01-598-1549 or 01-598-0425 may be approximately 1" taller (flange-to-flange) than the removed assembly. This is due to a change in motor housing by the manufacturer.

3.5.1 Where new GFE fan assembly is received with larger flange-to-flange height dimension than the removed, the Contractor must submit CFR with any necessary or recommended modifications to mounting components to facilitate installation.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 4: Ducting, HVAC System, Clean

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean the shipboard HVAC ducting system.

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 514-001, Rev M, HVAC Duct & Piping Systems

COAST GUARD PUBLICATIONS

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 5100 (SFLC Std Spec 5100), 2022, Clean Shipboard Ventilation Systems

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

OTHER REFERENCES

None

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep.

Not applicable.

3.1.3 Protective measures. The Contractor must furnish and install all protective measures in accordance with SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection).

3.1.4 Interferences. The Contractor must handle all interferences in accordance with SFLC Std Spec 0000, paragraph 3.3.5 (Interferences). Known interferences include, but are not limited to the following:

- Vent system intake and exhaust screens
- Vent system access covers
- Electric preheaters
- Overhead sheathing and panels

3.1.5 Operational test, initial. Prior to commencement of work, the Contractor must witness an operational pre-test (by Coast Guard personnel) of the ventilation systems included in this work item, to demonstrate existing operational condition. Submit a CFR.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.2 Cleaning particulars. Using Coast Guard Drawing 87 WPB 514-001 as reference, the Contractor must clean all supply and exhaust portions of the HVAC system (all ducting leading to and from the air handler unit) in accordance with SFLC Std Spec 5100.

3.2.1 Mark the positions of all diverter, balance, and splitter dampers prior to disassembly and restore to original configuration at reassembly.

3.3 Operational test, post repairs. In the presence of the Coast Guard Inspector, the Contractor must thoroughly test and prove the disturbed ventilation systems to be in satisfactory operating condition. Repair all leaks. Submit CFR.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.4 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs.)

4. NOTES

This section is not applicable to this work item.

WORK ITEM 5: 24VDC Distribution System, Upgrade

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to perform upgrades to the 24VDC distribution system.

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	Panel Bridge 24 V	NSN: 6110-01-F18-5605	1 ea.	2,548.00
N	Alternator	NSN: 6125-01-020-2950	2 ea.	14,668.79
N	Regulator Voltage	NSN: 5963-01-623-3549	2 ea.	350.00
N	Resistor Thermal	NSN: 5905-01-662-5504	2 ea.	35.00
N	Harness, Wiring	NSN: 5995-01-661-5659	2 ea.	75.00
N	Seal Plain	NSN: 5330-12-314-3403	2 ea.	56.32
N	Coupling Half	NSN: 4730-12-408-7920	2 ea.	1,572.87
N	Coupling, Flex	NSN: 3010-01-255-4200	2 ea.	480.44
N	Insert, Flexible Coupling	NSN: 3010-12-332-3557	2 ea.	830.23
N	Screw Machine	NSN: 5305-01-384-3454	12 ea.	3.71
N	Washer, Spring Tension	NSN: 5310-12-125-7798	12 ea.	2.44
N	Nut, Plain Hexagon	NSN: 5310-12-156-4982	12 ea.	2.33
N	Guard Plate	NSN: 2920-12-408-7817	2 ea.	941.45
N	Plate, Mounting	NSN: 5340-12-333-7085	2 ea.	75.00
N	Screw, Cap, Hexagon	NSN: 5305-01-240-1274	14 ea.	4.53
N	Washer, Spring Tension	NSN: 5310-01-195-9000	14 ea.	1.81
N	Screw Cap Hexagon	NSN: 5305-12-142-8243	4 ea.	7.92
N	Screw, Cap	NSN: 5305-12-142-8236	4 ea.	3.64
N	Washer, Flat	NSN: 5310-12-149-4352	8 ea.	2.35
N	Bracket	NSN: 2815-12-408-5547	4 ea.	130.18

***Government-loaned property, which shall be returned to the Coast Guard Inspector upon completion of the availability.**

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 310-001, Rev J, Ship's Service One-Line Diagram

Coast Guard Drawing 87 WPB 313-001, Rev R, DC System

COAST GUARD PUBLICATIONS

Coast Guard Technical Publication (TP) 4533, SWBS 233, 2002, Propulsion Internal Combustion Engines, Maintenance Manual

Coast Guard Technical Publication (TP) 4525, SWBS 202, 2003, Main Diesel Engine Control System Schematics

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 3041 (SFLC Std Spec 3041), 2022, Shipboard Electrical Cable Test

Surface Forces Logistics Center Standard Specification 3042 (SFLC Std Spec 3042), 2022, Shipboard Electrical Cable Removal, Relocation, Splice, Repair, and Installation

OTHER REFERENCES

None.

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep. The Contractor must provide the services of an OEM authorized/licensed Tech Rep for the MTU Main Diesel Engines (MDE) to accomplish the following on site:

- Provide manufacturer's proprietary system/equipment information, software, and tools.
- Assist with and ensure compliance with manufacturer's procedures and standards during disassembly, inspection, repair, modification, calibration, and reassembly of the equipment/system.

3.1.2.1 Ensure the Tech Rep is an OEM Certified Representative for the system/equipment stated above and demonstrated on their resume.

3.1.3 Protective measures. The Contractor must furnish and install all protective measures in accordance with SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection).

3.1.4 Interferences. The Contractor must handle all interferences in accordance with SFLC Std. Spec 0000, paragraph 3.3.5 (Interferences).

3.1.5 Electrical work. The Contractor must accomplish all electrical work in accordance with SFLC Std. Spec 3042, and test cables in accordance with SFLC Std. Spec 3041. Utilize the existing wire ways for new cable runs.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.2 Operational test, initial. Prior to commencement of work, the Contractor must witness Coast Guard personnel perform an initial operational test of all items or shipboard devices to be disturbed, used, repaired, or altered, to demonstrate existing operational condition. Submit a CFR.

3.3 Work particulars. Using Coast Guard Drawings 87 WPB 310-001 and 313-001 and Coast Guard Tech Pub (TP) 4533 Section 3.86 as reference, the Contractor must perform the following:

3.3.1 Install Government-furnished 90 Amp alternators and accessory components on each of the MTU main diesel engines (MDE's).

3.3.1.1 Inspect alternator for ground tab. If installed as shown below in Figure 1, remove ground tab.

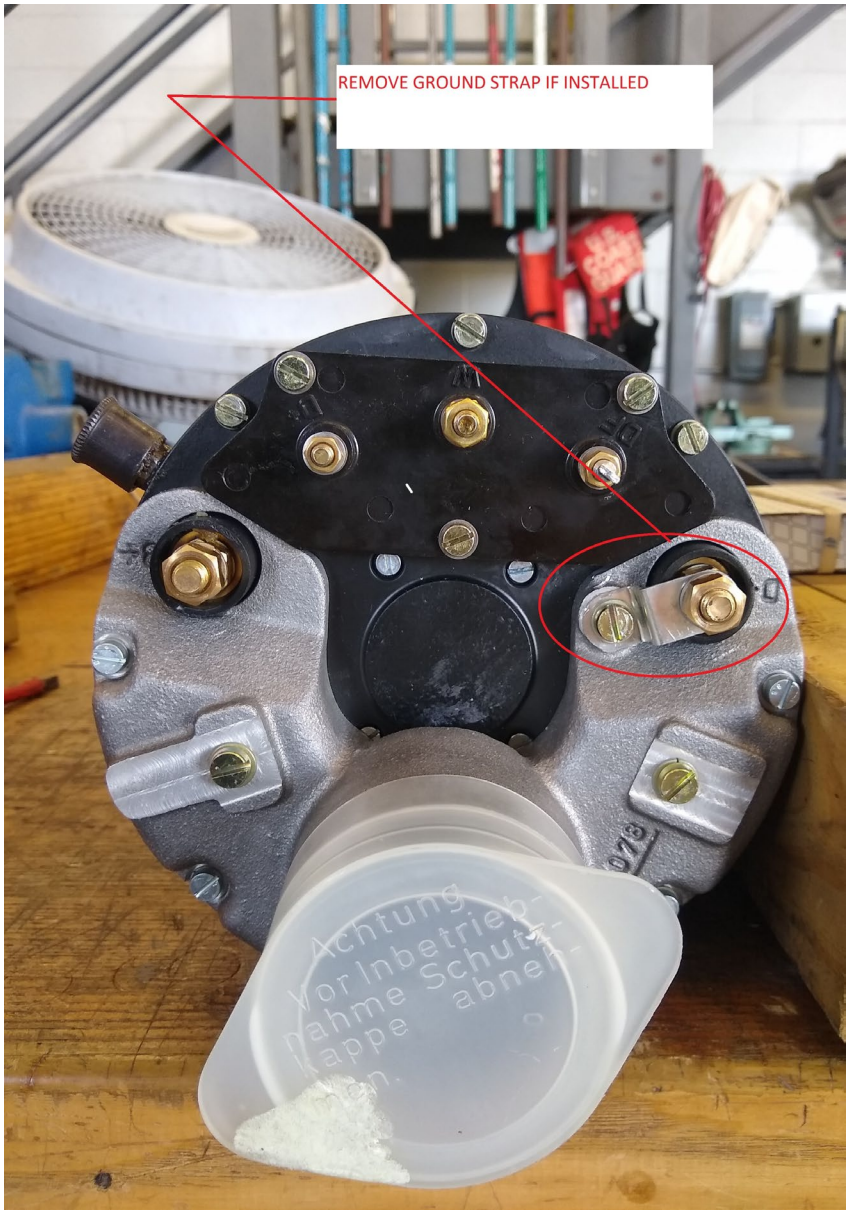

FIGURE 1. ALTERNATOR WITH GROUND STRAP

3.3.1.2 Install Government-furnished voltage regulator on door of MTU start box shown in Figure 4 below.

3.3.2 The Contractor must furnish and install two (2) Sonalerts and Panel mounted LED on PORT and STBD start control box door

3.3.3 The Contractor must furnish and install new LSDSGU-50 or equivalent cable from alternators to starters IAW 87 WPB 313-001.

3.3.4 Install Government-furnished 24/12 VDC Panel and associated components in location shown below in Figure 2 and as designated by Coast Guard Inspector in the Pilothouse.

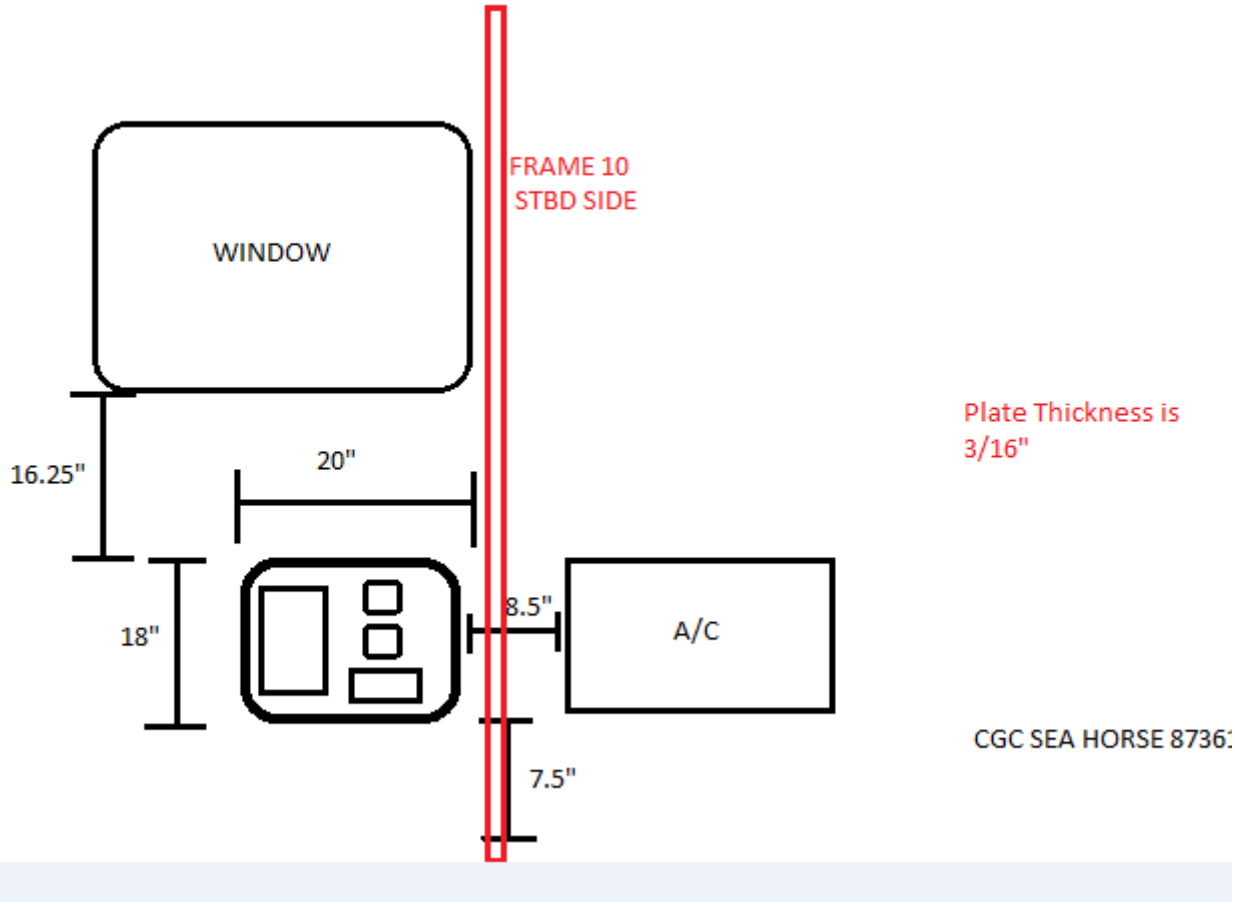

FIGURE 2. ELEVATION VIEW SKETCH

3.3.5 The Contractor must furnish and install new 50A breaker in place of the existing 100A breaker in the 24 volt DC Engine Room Panel IAW Coast Guard Drawing 87 WPB 313-001.

3.3.6 The Contractor must furnish and install new electric cable, Type LSDNW-23 or equivalent from the 50 amp breaker installed above in the 24 Volt DC Engine Room Panel to new Pilothouse 24/12 VDC Panel.

3.3.7 The Contractor must furnish and install four (4) battery temp sensors, two (2) PORT batteries, and two (2) STBD batteries

NOTE

The contractor is authorized to lengthen the cable on item NSN 5905-01-662-5504 to fit the configuration. Splice must be on the connector end and IAW SFLC Std Spec 3042

3.3.8 The Contractor must configure each voltage regulator for the correct battery type IAW the manufacturer's installation manual.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.4. Operational test, post repairs. After completion of work, the Contractor must thoroughly test, in the presence of the Coast Guard Inspector, and demonstrate all items or shipboard devices that have been disturbed, used, repaired, altered, or installed to be in satisfactory operating condition. Submit a CFR.

3.4.1 Complete, sign and date the SOVT (System Operability Verification Test) below

WPB-87 24v Upgrade SOVT

Test 1 Over Temperature Alarm

This test verifies the operation of the overtemperature alarm on the Voltage Regulator. Remove the temperature probes from their connection point one at a time and slowly heat each terminal end with a heat gun to about 200 Degrees F until the alarm sounds

1A	Stbd battery bank No1	Yes	No
	Stbd battery bank No2	Yes	No
	Stbd MDE alternator	Yes	No
2A	Port battery bank No1	Yes	No
	Port battery bank No2	Yes	No
	Port MDE alternator	Yes	No

Test 2 12v and 24v battery power

This test measures the actual battery voltage to determine if the charge voltage is reaching the battery banks in later test

System settings

50a breaker off

Main engines	off
SW1 PH	Pos 1
SW2 PH	Pos 1 or 2
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: T2A: Port Battery Bank _____V

T2B: Stbd Battery Bank _____V

T2C: Pilot House 24v Bank _____V

T2C: Pilot House 12v Bank _____V

Test 3 Voltage Regulator Test

This test verifies the voltage regulators are wired correctly

3a Stbd Voltage Regulator Test

System settings

50a breaker	off
Main engines	off
SW1 PH	Pos 1
SW2 PH	Pos 1 or 2
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: 1. Primary power wire RED (Terminal 3) _____V
1a. Proceed if this value is within +/- 1 volt of T2B

2. Ignition wire Brown (Terminal 2) _____V
2a. Proceed if this value is 0V

3. Primary Field wire Blue (Terminal 1) _____V
3a. Proceed if this value is 0V

3b Port Voltage Regulator Test

System settings

50a breaker	off
Main engines	off
SW1 PH	Pos 1
SW2 PH	Pos 1 or 2

PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: 1. Primary power wire RED (Terminal 3) _____V
1a. Proceed if this value is within +/- 1 volt of T2A

2. Ignition wire Brown (Terminal 2) _____V
2a. Proceed if this value is 0V

3. Primary Field wire Blue (Terminal 1) 0V
3a. Proceed if this value is 0V

Test 4 Alternator Operation

This test determines if the alternators are wired correctly and receiving power

4a Stbd Alternator Operation

System settings

50a breaker	off
Main engines	off
SW1 PH	Pos 1
SW2 PH	Pos 1 or 2
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: 1. With the ignition off hold a metal screwdriver near the nut of the alternator pulley. You should feel no magnetic pull.

2. Turn the ignition on and hold the screwdriver in the same area. You should feel a magnetic pull

4b Port Alternator Operation

System settings

50a breaker	off
Main engines	off
SW1 PH	Pos 1
SW2 PH	Pos 1 or 2
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: 1. With the ignition off hold a metal screwdriver near the nut of the alternator pulley. alternator. You should feel no magnetic pull.

2. Turn the ignition on and hold the screwdriver in the same area. You should feel a magnetic pull

Test 5 Alternator Output

This test determines if the alternators are generating the charge voltage

5a Stbd Alternator Output

System settings

50a breaker	off
Main engines	on
SW1 PH	Pos off
SW2 PH	Pos off
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: This can be read from the voltage regulators display _____V
Proceed if measurement is between 26V – 28.6V

5b Port Alternator Output

Measure and record voltage on both 24V engine battery banks

System settings

50a breaker	off
Main engines	on
SW1 PH	Pos off
SW2 PH	Pos off
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: This can be read from the voltage regulators display _____V
Proceed if measurement is between 26V – 28.6V

Test 6a Stbd Voltage Regulator Test Engines On

System settings

50a breaker	off

Main engines	on
SW1 PH	Pos off
SW2 PH	Pos off
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: 1. Primary Power wire RED (Terminal 3) _____V
1a. Measurement should be same as measured in Test 5a

2. Ignition wire Brown (Terminal 2) _____V
2a. Measurement should be around 24V

3. Primary Field wire Blue (Terminal 1) _____V
3a. Measurement should be between 4V – 24V

Test 6b Port Voltage Regulator Test Engines On

System settings

50a breaker	off
Main engines	on
SW1 PH	Pos off
SW2 PH	Pos off
PH-BC 12	off
PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: 1. Primary Power wire RED (Terminal 3) _____V
1a. Measurement should be same as measured in Test 5b

2. Ignition wire Brown (Terminal 2) _____V
2a. Measurement should be around 24V

3. Primary Field wire Blue (Terminal 1) _____V
3a. Measurement should be between 4V – 24V

Test 7 Alternator output to Pilot House

Measure and record voltage on PH 24V battery bank

System settings

50a breaker	on
Main engines	on
SW1 PH	Pos 2
SW2 PH	Pos 1
PH-BC 12	off

PH-BC 24	off
ER-BC 12	off
ER-BC 24	off

Results: Voltage reading on bank _____V
Voltage should be around 28V-29V

Test 8 Temperature Sensor Test

This test verifies the system operates correctly at higher engine speeds. Test one MDE at a time with transmission in neutral

1. Start the MDE and allow the engine to reach operating temp
2. Increase engine speed at 200 RPM increments up to 2000 RPMs
3. If the engine operates properly through the entire test range, secure the engine
4. Repeat test on other MDE

Operation:

Normal
50A breaker ON
SW1 POS 1
SW2 OFF

Dead Generators
50A breaker ON
SW1 POS 2
SW2 POS Both

Sign-Offs verifying Test has been completed and is satisfactory:

Contractor _____ Date _____

Coast Guard Inspector _____ Date_____

4. NOTES

4.1 Redline drawings. The Contractor must provide redline drawings to reflect any discrepancies, changes, or revisions from the original drawings provided in Section 2.

4.2 Contractor furnished equipment.

ITEM DESCRIPTION	NSN/PN	QTY
Cable	LSDSGU-23	100 ft.
Temp sensor	MC-TS-B20	4 ea.
Sonalert	SC628H	2 ea.
Panel mount LED	Q22F1BxxR24E	2 ea.

FIGURE 3. PILOT HOUSE DC PANEL

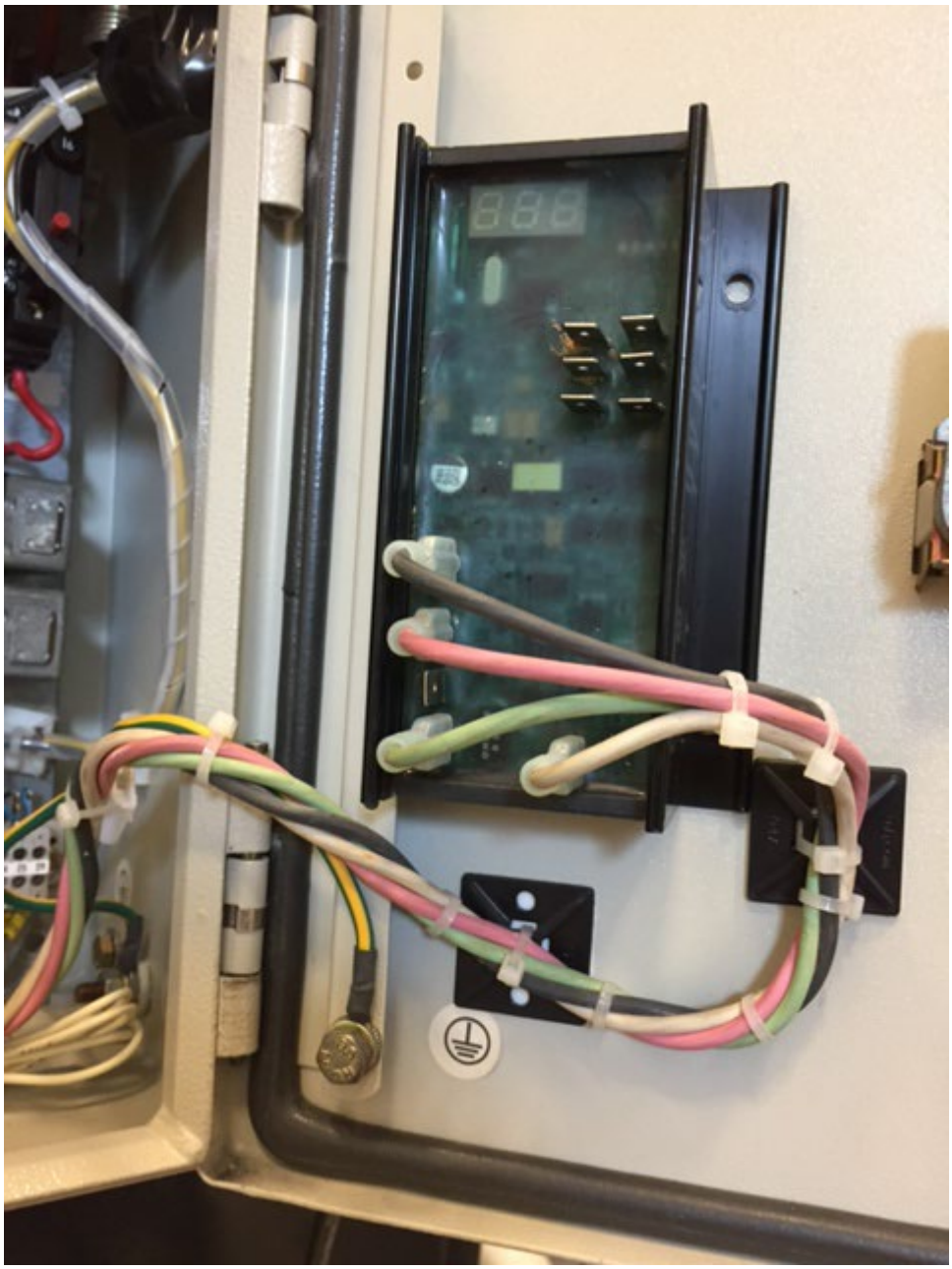

FIGURE 4. VOLTAGE REGULATOR

WORK ITEM 6: Interior Deck Covering System And Jointer Deck, Renew

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to renew the designated interior deck covering system shown in Table 1.

TABLE 1 - DECKING SYSTEM RENEWALS

LOCATION	AREA (*SQFT)	DECK MTL (**A/S)	SYSTEM/APPENDIX (SFLC STD SPEC 6341)	ISSUE	SYSTEM COLOR
Head (2-5-2-L)	12	A	Epoxy Flake System, Type I/ Appendix A See Para 3.3.3	N/A	See Paragraph 4.1
Passage Way (2-5-0-L)	50	A	Epoxy Flake System, Type I/ Appendix A See Para 3.3.3	N/A	See Paragraph 4.1

***Approximated.**
****Note: A = Aluminum; S = Steel.**

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	**Panel, Deck, 5/8"x48"x96", Aluminum 5052-H32 Core, 1/4" Cell, 0.063" 6061-T6 Face Sheets, Natural Mill Finish	NSN: 2040-01-F19-5621 PN: SPXC-1000-1000D	1 ea.	$654.00

****New or refurbished equipment that the Government may provide for installation in place of existing equipment.**

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 87 WPB 113-001, Rev G, Platform Plating & Framing
Coast Guard Drawing 87 WPB 113-002, Rev B, Galley/Mess Deck Access
Coast Guard Drawing 87 WPB 621-001, Rev K, Jointer Work Details
Coast Guard Drawing 87 WPB 634-001, Rev G, Deck Covering and Details
Coast Guard Drawing 87 WPB 640-001, Rev P, Interior Furnishings

COAST GUARD PUBLICATIONS

Surface Forces Logistics Center Standard Specification 0000 (SFLC Std Spec 0000), 2022, General Requirements

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

Surface Forces Logistics Center Standard Specification 6341 (SFLC Std Spec 6341), 2022, Install Interior Deck Covering Systems

OTHER REFERENCES

MIL-D-16791, Jan 1993, Detergents, General Purpose (Liquid, Non-ionic)

MIL-PRF-24613A, Nov 2007, Deck Covering Materials, Interior, Cosmetic Polymeric

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep.

None.

3.1.3 Protective measures. The Contractor must furnish and install all protective measures in accordance with SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection).

3.1.4 Interferences. The Contractor must handle all interferences in accordance with SFLC Std. Spec 0000, paragraph 3.3.5 (Interferences). Known interferences include, but are not limited to the following:

- Toilets
- Racks
- Sinks
- Piping
- Jointer Bulkheads

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.2 Operational test, initial. Prior to commencement of work, the Contractor must witness Coast Guard personnel perform an initial operational test of all items or shipboard devices to be disturbed, used, repaired, or altered, to demonstrate existing operational condition. Submit a CFR.

CAUTION

Cosmetic polymeric epoxy system is installed over delicate joiner deck. Take care to avoid damaging joiner deck during removal of existing deck material.

3.3 Deck covering system and deck panel renewal. Using Coast Guard Drawings listed in Section 2 as guidance, the Contractor must renew the deck covering systems and damaged deck panels in the space(s) identified in Table 1.

3.3.1 Upon removal of existing deck covering system, the Contractor must perform visual inspection of underlying joiner panels. Submit CFR.

3.3.1.1 Change request authorization. If a Change Request is authorized and released by the KO, the Contractor must renew floor panels designated by CFR, using GFP provided in Section 1.2 and Coast Guard Drawings 87 WPB 113-001, 87 WPB 113-002 and 87 WPB 621-001 as guidance.

3.3.1.2 The Contractor must seal the exposed edges newly installed and disturbed honeycomb panel with Devcon Aluminum Putty P/N 10610 or 10620 or equivalent prior to installing trim strips.

3.3.1.3 The Contractor must radius all inside corners of cutouts to at least 0.375".

3.3.1.4 The Contractor must seal all trim to panel mating surfaces and all fasteners penetrating into honeycomb panels with a silicon sealant to inhibit water intrusion into the panel's core.

CAUTION

To minimize impact on cutter weight & moment, do not add excessive deck covering material, beyond what was removed. Make new deck covering thickness as close as practicable to the original thickness.

3.3.2 Cosmetic polymeric epoxy resin, Type III (One-Step Epoxy). Where this covering is specified in Table 1 above, the Contractor must renew the deck covering material using Cosmetic Polymeric Epoxy Resin, MIL-PRF-24613 Type III, Class 3 (One-Step Epoxy System), in accordance with appendix A of SFLC Std. Spec 6341.

3.3.3 Epoxy flake system. Where this covering is specified in Table 1 above, the Contractor must renew the deck covering material using Epoxy Flake. Renew slip-resistant treads LOM #7 of Coast Guard Drawing 87 WPB 634-001 (slip-resistant treads) where disturbed.

3.3.4 Laminate deck. Where this covering is specified in Table 1 above, the Contractor must renew the deck covering material using Laminate in accordance with Coast Guard Drawing 87 WPB 634-001 and SFLC Std. Spec 6341.

3.3.5 Non-skid patches. The Contractor must renew any disturbed slip-resistant treads around ladders and watertight doors in accordance with Coast Guard Drawing 87 WPB-634-001.

3.3.6 Cove base. The Contractor must install a new 4-inch high vinyl cove base molding at all affected bulkhead boundaries, where applicable.

3.4 Unobstructed flow test. Following completion of repairs, the Contractor must accomplish the following. Submit CFR.

3.4.1 The Contractor must accomplish an unobstructed flow test of each deck drain using clean, fresh water in a sufficient quantity to ensure the new deck covering system slopes to the drain within an 18-inch radius. No obstruction allowed. Water shall flow to the drain and not stand or puddle.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.5. Operational test, post repairs. After completion of work, the Contractor must thoroughly test, in the presence of the Coast Guard Inspector, and demonstrate all items or shipboard devices that have been disturbed, used, repaired, altered, or installed to be in satisfactory operating condition. Submit a CFR.

3.6 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces to match existing adjacent surfaces in accordance with SFLC Std. Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs.)

4. NOTES

4.1 Epoxy deck covering patterns. The below are authorized epoxy deck color patterns and manufacturers. More information on approved manufacturers can be found in SFLC Std. Spec 6341 Appendix A.

TABLE 2 - ONE-STEP PATTERNS

MANUFACTURER	PRODUCT DESIGNATION	PATTERN
Crossfield Products Corp./ Dex-O-Tex	Terrazzo M Quick-Step	Starlight Blue
American Hi-Tech Flooring Company	Phoenix Epoxy One-Step Deck Covering	Starlight Blue
Illinois Tool Works, Inc./ American Safety Technologies	ST-100	Starlight Blue

TABLE 3 - EPOXY FLAKE PATTERNS

MANUFACTURER	PRODUCT DESIGNATION	PATTERN
Crossfield Products Corp./ Dex-O-Tex	Colorflake M	706 – Navy Blue w/ white vinyl chips
Epmar Corp./ Syndeck	IMO Epoxy SS5000	SS5015 – Navy Blue w/ white vinyl chips
Illinois Tool Works, Inc./ American Safety Technologies	CF-100 Color Flake	Navy Blue w/ white vinyl chips